

# Effect of Benchmarking Practices on Financial Performance of Private Hospitals in Kenya. A Case of Private Hospitals in Kisii County, Kenya

Ann Chebet<sup>1</sup>, Prof. Willy Mwangi Muturi<sup>2</sup>

<sup>1</sup>MBA Student, Jomo Kenyatta University of Agriculture and Technology

<sup>2</sup>Jomo Kenyatta University of Agriculture and Technology (PhD)

## Abstract

Benchmarking is the process of continuously comparing and measuring an organization with business leaders anywhere in the world to gain information, which will help the organization take action to improve its performance. Hospitals play a vital role in Kenya's health sector by providing medical services. The main objective of the study was to establish the effect of benchmarking practices on financial performance of private hospitals in Kenya. The specific objectives of the study were to determine the effect of functional benchmarking on the financial performance of private hospitals in Kenya, to establish the effect of process benchmarking on the financial performance of private hospitals in Kenya and to determine the effect of operational benchmarking on the financial performance of private hospitals in Kenya. The study concentrated only on the private hospitals that are in operation in Kisii County and are duly recognized by the Ministry of Health. The study used descriptive research design so as to gather the necessary data for analysis. The study undertook census survey of all the 173 proprietors and medical practitioners. Primary data were collected using a personally administered semi-structured questionnaire. The results will be presented in charts, tables and graphs. The study found out that all the three forms of benchmarking under study (Functional, Process and Operational) have a significant influence on the financial performance of private hospitals.

**Keyword:** Benchmarking, Private hospitals, Financial Performance, Kisii County, Health Sector.

## 1. Introduction

Benchmarking is the process of continuously comparing and measuring an organization with business leaders anywhere in the world to gain information, which will help the organization take action to improve its performance (Achim, Căbulea, Popa & Mihalache, 2009). Benchmarking is a core managerial task commonly characterized as a problem solving activity, generally implemented through response actions to business analytics feedback. It reveals the gap between the firm's resources and routines and those of competitors (Epure, 2016). Benchmarking can be conducted at all times and at all stages of the firm decision-making cycle, from diagnosis and planning to implementation (Kahan, 2010).

A study by Attiany (2014) on the competitive advantage through benchmarking, and with special focus on the industrial companies listed in Amman Stock Exchange, found out that competitive, functional, and internal benchmarking has a significant impact on low cost leadership, while generic benchmarking does not affect low cost leadership. Ugochukwu (2012) developed interest on benchmarking as a performance management strategy in the manufacturing industry, with

special focus on three manufacturing firms in Aba, Abia state, Nigeria, and it was revealed that manufacturing company's engage in benchmarking to achieve industry's best practice and to keep abreast with competitors, and that benchmarking serves as performance management strategy by setting performance standard.

Karimu (2011) researched on benchmarking and organizational performance in the Nigerian banking industry and it was revealed that the benchmarking process could be used to improve the performance of the commercial banks by applying the best practice. The study unearthed a positive relationship between the internal factors (Financial resources, inputs, human Resources, production process, structure of the banks, culture of the bank and technology) and best practice factors in the selected Nigerian banks. Kibubi (2016) on benchmarking practices and performance of supermarkets in Nairobi County. The study revealed that, in order to improve on functional benchmarking, supermarkets compare the business functions with others which have led to incremental innovation. The research noted that less time and resources are needed for internal benchmarking.

The study by Mutuku (2010) on the relationship between benchmarking and financial performance of SACCOs in Nairobi came up with the conclusion that SACCOS apply benchmarking strategies such as internal benchmarking, operational benchmarking, industry benchmarking and process (or generic) benchmarking. As far as the factors that contribute to the successful implementation of benchmarking at the SACCOs is concerned, the study discovered that; being composed of interested motivated people and identification of targets in advance were some of the factors that contribute to the successful implementation of benchmarking at the SACCOs.

The results of the study by Kerandi, Nyaoga, Bosire and Nyambega (2014) on the survey of performance improvement through benchmarking in commercial banks in Kenya noted that benchmarking is not new but a technique that has become popular in the banking industry in Kenya. The study lamented that, despite the fact that commercial banks in Kenya have involved in both internal and external benchmarking practices, there has been lack of involvement of both internal and external benchmarking experts. The study reported that there existed a strong positive relationship between benchmarking and organizational performance.

Hospitals play a vital role in Kenya's health sector by providing medical services. The enormous population of the country had made it difficult for the public hospitals to offer adequate medical services to her citizens, hence the need for private hospitals. However, it had been observed that, regardless of the vital role these private hospitals play to human well-being, most of them had not witnessed growth. Besides, the performance of most of them had been wanting. Their benchmarking had been put on the spotlight as one of the probable reasons behind their poor performance (Matunga, 2013). Therefore, this study sought to establish the effects of benchmarking practices on financial performance of private hospitals in Kenya. The specific objectives of the study were to determine the effect of functional benchmarking on the financial performance of private hospitals in Kisii County Kenya, to establish the effect of process benchmarking on the financial performance of private hospitals in Kisii County Kenya and to

determine the effect of operational benchmarking on the financial performance of private hospitals in Kisii County Kenya.

## **2. Literature Review**

### **2.1 Functional Benchmarking**

Kay (2007) defines functional benchmarking as the comparative research and attempts to seek world class excellence by comparing business performance not only against competitors but also against the best businesses operating in similar fields and performing similar activities or having similar problems, but in a different industry. It involves making a comparison of methods with those of companies with similar processes in the same function outside one's industry. Functional benchmarking allows you to adopt practices from different industries with similar functions as long as the measurables are comparable (Al-Majali, 2017). Asrofah, Zailani and Fernando (2010) defines it as a type of benchmarking in which businesses look to benchmark with partners drawn from different business sectors or areas of activity to find ways of improving similar functions or work processes. According to the study, this type of benchmarking can lead to innovation and dramatic improvements

According to Miyake (2016), hospitals undertake functional benchmarking using such measures as patient wait time: Calculates the average amount of time a patient must wait between checking in and seeing a provider. This can help with staffing and scheduling and provide insight into patient satisfaction, bed or room turnover and overall patient satisfaction. Similar sentiments were shared in a study by Jackson (2016) which indicated that the management of healthcare facilities must figure out which healthcare metrics are important to the respective facilities and determine benchmarks for those measures. According to the report, some of the areas in which the facilities may be benchmarked include patient wait time, wait times for scheduled appointments, percentage of patients with insurance, number of media mentions, number of partnerships with advocacy groups and patient follow-up which measures the number of patients who, after a visit to the facility, receive follow-up that involves a physician, a nurse, or another staff member asking about the visit and the patient's improvements.

Ellison and Marshall (2016) in a review of 150 hospital benchmarks recognized the fact that Hospitals across the US were competing in a number of areas, including quality and price, and that many use benchmarking as a way to determine the areas most in need of improvement. According to the report, the continuous process of benchmarking allows hospital executives to see how their organizations stack up against competitors as well as national leaders.

Al-Majali (2017) researched on the impact of benchmarking in organizational performance, with special focus on the Jordanian Public Universities. The results of the study revealed that Jordanian universities had adopted a high level of benchmarking. Specifically, the study found out that functional benchmarking was the most widely type of benchmarking adopted by the universities, followed by external benchmarking, then strategic benchmarking and lastly internal benchmarking. The study observed that, functional benchmarking had a strong impact on the environmental, growth and learning dimensions of organizational performance of the universities.

Goncharuk, Lazareva and Alsharf (2015) in a study on benchmarking as a performance management method in Poland, observed that functional benchmarking analyses the enterprises from different business sectors or fields of activity to find ways for improvement of similar functions or work processes. The study praised this type of benchmarking by stating that it can lead to innovations and dramatic improvements. According to the study, it is in use when: enterprise has a necessity of improvement of activity, the goods or services, for which there are no analogues (competitors) in the market. In spite of this, the study realized that there are some difficulties that make it hard for organizations to embrace it and this include; inaccessibility of the information, resistance of competitors, inefficiency within the organization, or the impossibility of the further development demanding cardinal changes in business, innovations.

A study by Wanyama (2012) on the effect of benchmarking on performance: evidence from freight forwarding firms in Kenya, developed reasons to believe that the freight forwarding firms had employed the use of functional benchmarking had all been applied to a great extent and that this had led to development demanding cardinal changes in business and innovations.

Attiany (2014) found sufficient reasons to proof that functional benchmarking produce the highest value when combined with process benchmarking. it was evident from the study that functional benchmarking has a significant impact on low cost leadership, product differentiation and quick response among the industrial companies listed in Amman Stock Exchange.

Kibubi (2016) on trying to establish the link between benchmarking practices and the performance of supermarkets in Nairobi County, realized that comparing the business functions with others led to incremental innovation to a great extent, that firms compared themselves with partners drawn from diverse business zones to find ways of enhancing alike roles or work processes to a great extent, and that firms compared the business functions with others and this often led to dramatic improvements. This led to the conclusion that companies which compared their business functions with others led to incremental innovation, and that companies compared themselves with partners drawn from diverse business zones to find ways of enhancing alike roles or work processes and finally there was doubt whether comparing the business functions with others often leads to dramatic improvements. Wanyama (2012) observed that, to a great extent, freight forwarding firms in Kenya undertook a thorough search to identify best-practice-organisations as part of their functional benchmarking techniques.

## **2.2 Process Benchmarking**

Karimu (2011) defines process benchmarking as the comparison of methods and practices for performing business processes, for the purpose of learning from the best to improve one's own process. Process benchmarking goes beyond the pure analysis of performance data and tries to identify the designs and characteristics of a process that is the best practices that leads to good performance of others, and it can be applied to organizations from different sectors of the economy. Elmuti and Kathawala (2012) on investigating benchmarking process as a tool for continuous improvement and competitive Advantage, documented on the need for every business to weigh up carefully its own perspective of benchmarking and how they aspire to apply the process, and that the business should establish whether their focal point is on monetary results or on meeting client needs, since this is the only successful way to initiate the benchmarking process.

Ugochukwu (2012) confessed that it is in process benchmarking that an organization develops the most substantial benefits, and that it includes operational, functional and generic benchmarking. According to the study, generic benchmarking is more detailed in terms of data gathering and the rigour of analysis, and that much of the focus is on cost and differentiation. Mutuku (2010) established that there was a weak relationship between process benchmarking and performance among the SACCOs in Nairobi. Kibubi's (2016) study on benchmarking practices and performance of supermarkets in Nairobi County, discovered that companies focus on realizing enhancements in key processes to gain fast results and also focuses on improving particular vital processes relative to best performers.

Alosani et al. (2016) did a research on the mechanism of benchmarking and its impact on organizational performance. The study aimed at ascertaining the importance of benchmarking as a tool that can enhance organizational performance. The findings of the study found out that benchmarking positively affects organizational performance, and hence most organizations have resulted in adopting it as an effective performance improvement tool that assists in gaining competitive advantage. Marković et al. (2011) reported that process benchmarking requires identification of the most effective work practices in the companies having similar operating functions. According to the study, if one organization improves the basic process, it has an influence on performance improvement and this can be evident from its increased productivity, lower costs or improved sale.

Process benchmarking goes beyond performance measures and also compares how business processes are performed, not only how well they are performed (Attiany, 2014). It focuses on individual production processes in the vertical production chain (Berg and Corton, 2007). For this reason, managers actively utilize this technique because it can identify specific stages of the production process that warrant attention. Abdulla (2009) indicated that process benchmarking focuses on specific processes or operations, and it is used when the focus is on improving specific critical processes and operations. For this reason, benchmarking partners are sought from best practice organizations that perform similar work or deliver similar services. According to the study, process benchmarking invariably involves producing process maps to facilitate comparison and analysis, and that this type of benchmarking can result in benefits in the short term.

Kerandi et al. (2014) did a survey of performance improvement through benchmarking in commercial banks in Kenya. The findings of the study revealed that the commercial banks that implemented more of the benchmarking best practices were more likely to achieve improved organizational performance. The study came up with a conclusion that benchmarking was an established performance improvement technique that was proved to be effective in the banking industry in Kenya over time. It was also observed that there existed a strong positive relationship between benchmarking and organizational performance. Mutuku (2010) researched on the relationship between benchmarking and financial performance of SACCOs in Nairobi. The study revealed that benchmarking is used at the SACCOs as an incremental continuous improvement tool and that benchmarking enhance the overall business performance realized by the SACCOs by helping to change internal paradigms and foresee its future.

### **2.3 Operational Benchmarking**

Alberta Health Services (2015) define operational benchmarking as one which compares the costs, expenses and productivity of a specific hospital unit to the costs and expenses of other similar units at similar hospitals. According to the report, the intent is to see if there are ways we can provide services more efficiently without adversely affecting quality of care. Mutuku (2010) asserts that this type of benchmarking is indicated by the number of customers a member of staff can serve in a day and the ratio of staff to membership and members' withdrawal rate.

Lapão (2015) on the challenge of benchmarking health systems in Portugal and Israel, observed that benchmarking exercises present a set of challenges, such as the choice of methodologies and the assessment of the impact on organizational strategy, and that precise benchmarking methodology is a valid tool for eliciting information about alternatives for improving health systems. Sliteen, Boussabaine and Catarina (2011) researched on benchmarking operation and maintenance costs of French healthcare facilities and the study revealed that cost per bed ratio can be used as an efficient metric to classify health facilities into similar to data sets, that the operational costs of utilities, maintenance and operations and maintenance staff have a strong positive influence on the square meter of floor area. However, the study discovered that the relationship between the total of operational costs per square meter with the floor is negatively correlated.

In Nigeria, a study by Wollum, Burstein, Fullman, Dwyer-Lindgren and Gakidou (2015) on benchmarking health system performance across states in Nigeria, extracted data from 19 surveys to generate estimates for 20 key maternal and child health (MCH) interventions and outcomes for 36 states and the Federal Capital Territory from 2000 to 2013. The findings from the study revealed that, under-5 mortality decreased in all states from 2000 to 2013, but a large gap remained across them. Malaria intervention coverage stayed low despite increases between 2009 and 2013, largely driven by rising rates of insecticide-treated net ownership. Overall, vaccination coverage improved, with notable increases in the coverage of three-dose oral polio vaccine. Nevertheless, immunization coverage remained low for most vaccines, including measles.

Wanyama (2012) on the effect of benchmarking on performance among the freight forward firms in Kenya, identified operational benchmarking as one of the most widely used type of benchmarking among the freight forward companies in Kenya. According to the study, the aspect of operational benchmarking that were used to a very great extent included setting realistic timetables and being composed of interested motivated people, identifying targets in advance, understanding the processes behind the data, picking the correct business partners and allies, following proper protocol, focusing on relevant work-group level issues and being tied to the freight forwarding firm overall strategic objectives and collecting manageable bodies of data.

### **3. Research Design**

The study used descriptive survey research design. The study was carried out in Kisii County. The target population of the study was the proprietors and the medical practitioners of all the 32 private hospitals in Kisii County. There were a total of 173 proprietors and medical practitioners who were offering services in the private hospitals within Kisii County. The study used census survey to obtain data for analysis. Mugenda and Mugenda (2003) opined that there is no need for sampling when the sample size was small and it was for this reason that census survey was deemed fit for this study. Primary data were collected using a personally administered semi-

structured questionnaire. The data collected from the field was analyzed using descriptive statistics and inferential statistics. The descriptive analysis involved the use of percentages, frequencies, and mean weights while inferential statistics involved the use of regression analysis and correlation analysis and the results were tested at 95% confidence level.

#### **4. Finding and Dissuasion**

##### **4.1 Response Rate**

The study findings were arrived at after analysing a questionnaire that was administered to the respondents. All the 173 respondents to whom the questionnaire was administered returned the questionnaire. This represented 100% response rate.

##### **4.2 Demographic Characteristics**

Males formed a larger percentage (58%) of respondents while 42% of the respondents were of female gender. Majority of respondents revealed that benchmarking is done for continuous improvement at 68% response rate while 32% responses indicated that it is used for process re-engineering.

##### **4.3 Functional Benchmarking and Performance of Private Hospitals**

The study sought to determine the effect of functional benchmarking on the financial performance of private hospitals in Kisii County Kenya. The respondents were asked to rate their opinions on a five point Likert scale. The responses obtained from the field were presented as in table 1:

**Table 1: Functional Benchmarking and Performance of private Hospitals**

	Strongly agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
Our hospital compares with partners drawn from different business sectors to find ways of improving similar functions or work processes.	104	49	12	5	3	76	4.42
We compare the business functions with others leads to incremental innovation	93	61	10	6	3	75	4.36
Our hospital undertakes a thorough search to identify best-practice-organizations	71	63	15	13	11	68	3.98
Our comparison of the business functions with others often leads to dramatic improvements	34	74	21	36	8	60	3.52
<b>Average</b>							<b>4.07</b>

As table 1 shows, the respondents agreed that their hospitals compared with partners drawn from different business sectors to find ways of improving similar functions or work processes (weighted mean 4.42) and that they compared the business functions with others leads to incremental innovation (weighted mean 4.36). However, the respondents seemed not sure whether their hospitals undertook a thorough search to identify best-practice-organizations (weighted mean 3.98) nor their comparison of the business functions with others often led to dramatic improvements (weighted mean 3.52). All these factors were measured on a five point likert scale. The average weighed mean of 4.07 showed that on average the respondents agreed that financial benchmarking has an effect on the financial performance of private hospitals. These findings concur with those of Ellison and Marshall (2016) and Goncharuk et al. (2015) which realized that most organizations continuously compared their business functions with the organizations in the same league as a way of gauging their financial performance. The findings are also in support of Wanyama (2012) who documented that organizations that employed the use of functional benchmarking mainly witnessed positive changes in business and innovations.

#### 4.4 Process Benchmarking and Performance of Private Hospitals

The research wanted to know the effect of process benchmarking on the financial performance of private hospitals in Kisii County Kenya. The information obtained from the field was rated by respondents on a five point likert scale. The responses for this rating are presented as in table 2:

**Table 2: Process Benchmarking and Performance of Private Hospitals**

	Strongly agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
We regard a free standing exercise to improve existing performance	156	12	3	1	1	840	4.86
We try to bring all internal operation up to the highest possible level of performance giving existing constraints and assumptions	126	31	9	5	2	793	4.58
We focuses on improving particular vital processes relative to best performers	107	30	18	13	5	740	4.28
We identify gaps in performance in similar internal processes.	60	83	24	5	1	715	4.13
We identify the most effective work practices in the hospitals having similar operating functions.	73	63	15	13	9	697	4.03
We focus on realizing enhancements in key processes to gain fast results	59	77	17	17	3	691	3.99
We detail existing processes and activity networks so as to establish our hospital's baseline	43	37	22	51	20	551	3.18
We have adopted process benchmarking as an effective performance improvement tool that assists in gaining competitive advantage.	34	41	38	34	26	542	3.13
We focuses on the particular activity within a firm's functional operation and then identifies ways to emulate	29	44	35	38	27	529	3.06
<b>Average</b>							<b>3.92</b>

The results in table 2 revealed the respondents agreed to the claims that their hospitals regard a free standing exercise to improve existing performance (weighted mean 4.86), that they try to bring all internal operation up to the highest possible level of performance giving existing constraints and assumptions (weighted mean 4.58), that they focuses on improving particular

vital processes relative to best performers (weighted mean 4.28), that they identify gaps in performance in similar internal processes (weighted mean 4.13) and that they identify the most effective work practices in the hospitals having similar operating functions (weight mean 4.03). However, the respondents seem undecided on whether the hospitals focused on realizing enhancements in key processes to gain fast results (weighted mean 3.99) and on whether they detailed existing processes and activity networks so as to establish our hospital's baseline (weighted mean 3.18). Further, the respondents were also undecided on whether or not the hospitals had adopted process benchmarking as an effective performance improvement tool that assists in gaining competitive advantage (weighted mean 3.13) and on whether they focused on the particular activity within a firm's functional operation and then identifies ways to emulate (weighted mean 3.06). The average weighed mean of 3.92 showed that on average the respondents agreed that process benchmarking has an effect on the financial performance of private hospitals.

These findings are in support of previous studies, for instance Abdulla (2009) which noted that some organizations paid special attention on some specific critical processes and operations so as to achieve best results. Kerandi et al. (2014) and Mutuku (2010) also echoed these findings by stating that some firms specialized in specific improving the internal operations and also scrutinized the best practices which can help improve an organization's financial performance.

#### **4.5 Functional Benchmarking and Performance of Private Hospitals**

The study sought to determine the effect of operational benchmarking on the financial performance of private hospitals in Kisii County Kenya. The information obtained from the field was rated by respondents on a five point likert scale. The responses for this rating are as presented as in table 3:

**Table 3: Functional Benchmarking and Performance of Private Hospitals**

	Strongly agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
Our workforce is composed of interested motivated people	143	14	11	3	2	812	4.69
Our hospital follows proper protocol	107	29	18	9	10	733	4.24
Our hospital picks the correct business partners and allies	102	34	17	13	7	730	4.22
We are bound by our hospital's overall strategic objectives	89	39	32	9	4	719	4.16
We understand the processes behind the data	51	69	31	17	5	663	3.83
We collect manageable bodies of data	57	36	12	41	27	574	3.32
Our hospital identifies targets in advance	43	55	7	36	32	560	3.24
Our hospital sets realistic timetables	25	54	26	51	17	538	3.11
We focus on relevant workgroup-level issues	26	48	27	53	19	528	3.05
<b>Average</b>							<b>3.76</b>

As table 3 depicts, the respondents agreed that the hospitals' workforce was composed of interested motivated people (weighted mean 4.69), that they followed proper protocol (weighted mean 4.24), that picked the correct business partners and allies (weighted mean 4.22) and that the hospitals' employees were bound its overall strategic objectives (weighted mean 4.16). On the other side of the coin, the respondents seemed not sure on a number of aspects of operational benchmarking. First, they did not understand the processes behind the data (weighted mean 3.83), whether they collected manageable bodies of data (weighted mean 3.32), and that whether the hospitals identified targets in advance (weighted mean 3.24). Further, the respondents were

not sure whether their hospitals set realistic timetables (weighted mean 3.11) and whether they focused on relevant workgroup-level issues (weighted mean 3.05).

The average weighed mean of 3.76 showed that on average the respondents agreed that operational benchmarking has an effect on the financial performance of private hospitals. These results are in tandem with Wanyama (2012) which mentioned that most organizations were interested motivated people, identifying targets in advance, understanding the processes behind the data and picking the correct business partners and allies as forms of benchmarking to improving the performance of an organization.

#### **4.6 Financial Benchmarking**

The study sought to know the financial performance of the private hospitals involved in the study. Some aspects of financial performance were provided on a five point likert and the respondents were asked to rate them. Table 4 gives the results:

**Table 4: Financial Benchmarking**

	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1	$\Sigma f_i x_i$	$\frac{\Sigma f_i x_i}{\Sigma f_i}$
Our hospital's revenue has been on an upward trend in the last five years	97	57	17	2	0	768	4.44
Our hospital is able to meet its long term financial obligations	103	44	22	4	0	765	4.42
Our hospital is able to meet its short term financial obligations	105	37	17	9	5	747	4.32
Our hospital's clientele has been on an upward trend in the last five years	121	18	7	21	6	746	4.31
Our hospital's gross profit margin has been on an upward trend in the last five years	80	64	7	13	9	712	4.12
The number of deaths recorded in our hospital has reduced in the recent years	59	95	6	7	6	713	4.12
Our hospital's net profits has been on an upward trend in the last five years	38	53	17	51	14	569	3.29
<b>Average</b>							<b>4.15</b>

As table 4 illustrates, the respondents agreed that their hospitals' revenue has been on an upward trend in the last five years (weighted mean 4.44), that they were able to meet their long term financial obligations (weighted mean 4.42) and that they were also able to meet its short term financial obligations (weighted mean 4.32). Further analysis also revealed that the respondents agreed that their hospitals' clientele had been on an upward trend in the last five years (weighted mean 4.31), that their gross profit margin had been on an upward trend in the last five years 9 weighted mean 4.12) and that the number of deaths recorded in their hospital had reduced in the

recent years (weighted mean 4.12). However, the respondents seemed not sure whether their hospitals' net profits has been on an upward trend in the last five years (weighted mean 3.29). The average weighed mean of 4.15 showed that on average the respondents agreed that the financial performance of the hospitals had improved. Similar studies (Ugochukwu, 2012; Karimu, 2011; Kerandi et al., 2014) which observed that most organizations adopted the use of benchmarking in an effort to improve their performance. Wollum et al.(2012) also discovered that most hospitals in third world countries experienced increasing number of clientele because of the diseases that were still rampant in the area.

#### 4.7. Correlation Analysis

The correlation analysis of the variables is indicated as in table 5.

**Table 5: Correlation Analysis**

Model	Y	FB	PB	OB
Y	1.000			
FB	.652	1.000		
PB	.655	.892	1.000	
OB	.629	.928	.860	1.000
Sig. (1-tailed)		.000	.000	.000

The results in table 5 reveal that operational benchmarking (OB) has a strong correlation with functional benchmarking (FB) at 0.928 correlation value; also functional benchmarking (FB) has fairly high association with process benchmarking (PB) as well as operational benchmarking (OB) has a strong association with process benchmarking (PB) at 0.860 correlation value. Similar studies by Ugochukwu (2012) reported a strong positive correlation between process benchmarking and performance. Wanyama (2012) also identified a positive relationship between functional benchmarking and performance.

#### 4.8 Regression Analysis Results

The regression model below was used to establish the relationship of the variables in this study. Secondary data were used to establish this relationship.

$$Y = \beta_0 + \beta_1 FB + \beta_2 PB + \beta_3 OB + \varepsilon$$

Where,

Y- Performance (level of Revenue generated)

$\beta_0, \beta_1$  and  $\beta_2$ =Regression coefficients

FB=Functional Benchmarking costs

PB=Process Benchmarking costs

OB=Operational Benchmarking costs

$\varepsilon$ =Error term

The results in table 6 are coefficients values for explanatory variables relationship with the dependent variable:

**Table 6: Regression Model Coefficients of the Study Variables**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.317	.072		4.395	.000		
	FB	.086	.021	.109	4.151	.000	.321	3.115
	PB	.289	.037	.420	7.736	.000	.075	13.296
	OB	.064	.045	.081	1.418	.000	.067	14.876

a. Dependent Variable: Financial Performance of Private Hospitals

Substituting the coefficients in the regression model:  $Y = \beta_0 + \beta_1 FB + \beta_2 PB + \beta_3 OB + \epsilon$ ; The resulting model becomes  $Y = .017 + .086 FB + .289 PB + .064 OB$ ; This result indicates that a unit increase in the Functional benchmarking causes 0.086-unit increase in financial performance of private hospitals. For the process benchmarking a unit increase causes 0.289-unit increase in financial performance of private hospitals while a unit increase in operational benchmarking causes 0.064-unit increase in financial performance of private hospitals. However, if none of the aspects of benchmarking are adopted, the financial performance will increase by 0.17 units. The results are all statistically significant since all the p-values are less than 0.05.

The ANOVA result for the overall model for benchmarking practices on financial benchmarking was as shown on table 7. The model shows that the overall model is significant in explaining the variance in the financial performance of private hospital since its p-values (0.000) was found to be less than the critical value of 0.05.

**Table 7: ANOVA for the Overall Model**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2621.55	3	873.85	5.839	.000 <sup>b</sup>
Residuals	25292.54	169	149.66		
Total	27914.09	172			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Functional benchmarking, Process benchmarking, Operational benchmarking

**Table. 4.12 Modal Summary**

Model	R	R Square	Adjusted R Square	Change Statistics	
				F Change	Sig. F Change
1	.916 <sup>a</sup>	.838	.837	755.054	.000

a. Predictors: (Constant), Functional Benchmarking, Process Benchmarking, Operational Benchmarking costs

b. Dependent Variable: Financial Performance

The information in table 8 show that benchmarking practices in private hospitals have a strong association with their financial performance ( $R = 0.916^a$ ), further the benchmarking practices can explain up to 83.8% of the variation in financial performance and this is indicated by R Square ( $R = 0.838$ ); the model used in this study can be relied on by its users up to 83.7% (adjusted  $R^2 = .837$ ) and this result is statistically significant ( $p = .000 < .05$ ). A similar study by Kerandi et al. (2014) asserted that benchmarking accounted for over 80 percent of the performance of organizations

## 5. Conclusion

From the above findings, several conclusions were drawn. First, most private hospitals adopted functional benchmarking and this was evident from the fact that they continuously compared their business functions with the organizations in the same league as a way of gauging their financial performance. Secondly, it was also concluded that the hospitals practice process benchmarking by virtue of focusing on improving particular vital processes to achieve best results and identifying gaps in performance in similar internal processes. Thirdly, it can also be concluded that the hospitals had also spotted the importance of adopting operational benchmarking and this was evident from the fact that they had recruited interested motivated employees, and that the hospitals' employees were bound its overall strategic objectives. Lastly, it was evident from the study that all the three forms of benchmarking under study (Functional, Process and Operational) have a significant influence on the financial performance of private hospitals.

## 6. Recommendations

In view of the above conclusions, the following recommendations can be made: First, to improve on their functional benchmarking, the hospitals should strive to undertake a thorough search to identify best-practice-organizations and also compare their functions with other hospitals in the same league so as to improve on their performance. On the part of process benchmarking, the hospitals should also make use of process benchmarking as an effective performance improvement tool that assists in gaining competitive advantage. To enhance their operational benchmarking, the hospitals should gather manageable bodies of data, ensure they identify targets in advance and also set realistic timetables.

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