

Healthcare Workforce And Performance Of Sub-County Hospitals In Makueni County, Kenya

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Abstract- Purpose of the study: The study sought to assess the effect of healthcare work force on performance of sub-county hospitals in Makueni County, Kenya.

Research Problem: The Kenyan public healthcare sector suffers from inefficient provision of healthcare services, characterized by long queues in facilities, inadequate referral system, few physicians to handle patients, high cost of services and medicines and long distances to facilities.

Research Methodology: The study used descriptive study research design and its population of 535 staffs and targeted 228 respondents. Simple random sampling was applied in selecting the participants who filled the self-administered questionnaires by the research assistants. The collected data was analyzed using descriptive, correlation and regression analysis.

Findings: The results from correlation analysis indicate that there is an association between healthcare workforce and performance. Model summary showed that 62.4% of changes in performance of the sub-county hospitals were based on healthcare workforce. The regression results revealed that healthcare workforce is positively and significantly related to performance of the sub-county hospitals in Makueni County ($\beta = 4.753$, $t = 3.547$, $p = .000$).

Conclusion: The study concluded that performance of their health facility had improved in terms of low turn-around time, patient-centered services, high satisfaction and retention of patients. The correlation analysis established that healthcare workforce had positive and significant effects to performance of the sub-county hospitals in Makueni County, Kenya.

Recommendations: Healthcare facilities must have competent, skilled and experienced workforce and the management are advised to provide education and training programs for improved productivity. The study also recommends to the health facilities to take care of the needs of the workforce which will motivate them and increase their commitment levels, resulting in high performance.

Index Terms- Healthcare workforce, staffing levels, remuneration, continuous education, performance

I. INTRODUCTION

Health delivery systems work with the sole aim of enabling all citizens to access and receive healthcare services where and when needed. The quality of service delivered must meet the standards set by internationally recognized health bodies. In Kenya, the Ministry of Health (MOH) has classified facilities as public facilities managed by government, private facilities operated as profit-making enterprises, and those managed by other bodies including Faith-based Organizations (FBOs) and Non-Governmental Organizations (NGOs) both local and international (Kimanzi, 2020). A well-performing healthcare system is one that is responsive to the needs and expectations of the population, as shared by the World Health Organization (WHO).

Performance in the health sector is measured in terms of outcomes, effectiveness and quality of services, easy access to facilities, systems and personnel, clinical quality and appropriateness of the care, responsiveness, equity and productivity (Olusola, Onafeso, Ajiola & Adelabu, 2020). Attaining high performance relies on components including organizational resources, health information systems, health workforce, accessing essential medicines, financing and leadership (Achoki, Hovels, Masiye, Lesego, Leufkens & Kinfu, 2017). Performance also largely depends on well-trained, skilled and knowledgeable health personnel and the staffing numbers must be sufficient (Cantor & Poh, 2018). It also tells how well or poorly an organization is doing in terms of covering its expenses, expanding its operations and improving its outcomes.

Studies have linked healthcare workforce to performance such as Hamzah and See (2019) in Malaysia, noting that technical efficiency of the staff determined the performance of the pharmacy services. In Ghana, Diop, Awoonor-Williams, Ofofu and Williams (2019) linked quality of service delivered to the healthcare professionals and their distribution across the healthcare system. While in Kenya, Ayah, Ongore and Agwanda (2018) noted hospitals that followed the standard operating policies and procedures and had availed skilled health workers had

shown a decline in perinatal mortality rate. Stephen and Bula (2017) mentioned that healthcare performances were strongly affected by human resource management practices that had aspects like training of workforce, the recruitment, compensation and performance management practices.

Abate, Dereje, Hirvonen and Minten (2020) shared that healthcare sector is a service industry, therefore, quality service delivery to the patients need well-trained and qualified personnel. The personnel are at the core of proper functioning of the health department and covers different cadres of workers including doctors and nurses, specialist and pharmacists, technologists and even homecare givers. There are two categories of workforce covering the non-medical personnel such as administrators, security and cleaning staffs and the medical personnel who diagnose and treat the patients. Stephen and Bula (2017) noted that diseases keep evolving and new diseases and ailment are discovered all the time, therefore, the health workers must have information on managing the ailment, treatment procedures and handling the diseases. Effective service delivery is also linked to staffing levels and as shared by Miseda, Were, Murianki, Mutuku and Mutwiwa (2017) the volume of healthcare workers is essential based on health sector being a service industry. Without enough staff it is impossible to serve patients in a timely manner. The healthcare workforce must also be remunerated well according to their job group, effort and time used in service delivery.

The performance measure is based on the industry and company products, such that when it comes to the health sector; performance is about delivering quality services to the patients. Ayah, *et al.* (2018) considered that performance in the health sector is about declining mortality rates, the average hospital stay and bed occupancy rates. Other elements include costs of treatment and drugs, patient room turnover rate and utilization of medical equipment. Arumona, Erin, Onmonya and Omotayo (2019) mentions that performance is about general health of the populations, quality of clinical care, appropriate, responsive, equity and productive care and health outcomes from treatment. Therefore, the performance of sub-county hospitals was a measure of the health outcomes, the timeliness of services as based on turnaround time between requested service and when it is delivered and patient-centered services, such that the hospitals go out of the way to serve its patients and try to meet their specific preferences in care giving.

The Makueni County in Kenya offers a unique opportunity to study the influence of healthcare workforce on health performance due to their demonstrated strong commitment to the attainment of high performance in the health sector (Ndunda, 2017). Consequently, most of the public health facilities in Makueni County have embraced the automation of processes hence it will be easy to trace its health performance across all its units and departments. This study focused on Makueni County as one of the leading performers in healthcare to explore what it has done to attain the same and hence emulated by other counties and public health facilities. The study sought to find the association between healthcare workforce and performance in sub-county hospitals in Makueni County.

II. STATEMENT OF THE PROBLEM

The Kenyan public healthcare sector suffers from inefficient provision of healthcare services, characterized by long queues in facilities, inadequate referral system, few physicians to handle patients, high cost of services and medicines and long distances to facilities (Gitobu, Gichangi & Mwanda, 2018). Healthcare professionals complain of poor salaries, delayed pay and bad working conditions that result in low rated performance in the facilities and sector. Makueni County is among the counties with their own medical cover - Makuenicare that covers up to 93% of the residents. Although, there are still some populations left out of the cover and face challenges in financing health care costs. There is need to investigate more on performance as based on resources and specifically healthcare workforce. The challenges of performance in healthcare sector and facilities create a need for new research and thus, the study investigated on healthcare workforce and performance of sub-county hospitals in Makueni.

III. RESEARCH OBJECTIVE

To examine the effect of healthcare work force on performance of sub-county hospitals in Makueni County, Kenya.

IV. LITERATURE REVIEW

Theoretical Review

Resource- Based View Theory

It was proposed by Penrose (1959) and further expanded and popularized by Wernerfert (1984) and Barney (2001). The theory proposes ways in which specific firm resources can be exploited, increase gains and yields and competitiveness for the firm. The resources that gain competitive edge for the firms must be those that cannot be imitated and that can be identified by the efforts of the managerial team in an organization. The deployment of a set of valuable resources both the tangible and intangible ones that are at the disposal of a firm is the cornerstone of the resource-based view which is regarded as an instrument of competitive advantage. According to Hitt, Carnes and Xu (2016) in the theory, the firm resource, capacity and capability are the key aspects leading to gaining of competitive edge. The theory also helps in creating a clear understanding regarding the approaches of strategic management. Organizations that are seeking to gain competitive advantages through improved performance must then invest in their inputs. In the study scenario, the sub-county hospitals as a means of improving their performance must seek resources such as healthcare workforce. Resource based view theory is crucial as it delivers customer satisfaction, quality products and efficiency in the firm processes. The theory was applied to support the association between healthcare workforce and improve performance of the sub-county hospitals.

Balanced Scorecard Model

It was established by Robert Kaplan and Nolan Norton in the 1992 that details elements of performance measurement and the model had a mixture of financial and non-financial measures. The model suggests a comprehensive report and a summary that captures information on the organizational strategy. The balanced scorecard model offers a good platform to executives in a

company to assess performance in a more effective and efficient way. The model covers four perspectives namely; financials, customers, internal business processes, and learning and growth (Nørreklit, Kure & Trenca, 2018).

The financial viewpoint covers the returns that a firm gain from the investment made into an idea or concept. Financial measures include elements like revenues, earnings, sales, profit margins and growth of customer numbers (Hakkak & Ghodsi, 2015). On the second viewpoint of client/customer perspective, is about clients rating the services that they receive, and values gained. Firms develop strategies as per tastes and preferences of customers and in healthcare it is about patient-centered services. The third viewpoint is on internal business processes that cover the actions, strategies and activities that organizations use to become successful (Banabakova & Georgiev, 2018). The internal processes in the sub-county hospitals work to efficiently to deliver timely and quality healthcare services. Learning and growth viewpoint considers a system for improvement of employee skills, knowledge and experiences. This is done through healthcare workers receiving continuous medical trainings to enable them deliver high quality, efficient and effective services to the patients. Thus, the model is relevant in exposing how the viewpoints align on healthcare workforce, capacities and competencies leading to improved performance in the sub-county hospitals in Makueni, County.

New Public Management Theory

This is a public sector management theory proposed by Osborne and Gaebler in 1992. The theory's main concern is making governments more efficient and responding to public needs using techniques that are commonly used by the private sector. The public management includes processes that can either be formal or informal that guide human interactions in the quest of achieving firm objectives. In the book by Radnor, Osborne and Glennon (2016), the authors developed ten principles namely; financial control, conducting audits, customer orientation, responsiveness, de-regulation of labor markets, command and control mode of functioning, transparency and accountability, monitoring and evaluation, encouraging entrepreneurial management and using new forms of corporate governance. These principles assume that however much indispensable the government is, it does not have to automatically act like one. Applicability of this theory in the present study is to assess how human capital interacts to deliver quality services and positively influence the performance. The focus is conversion of patients to clients and making them aware of their rights and quality of care they should receive. It is covering the contribution of healthcare workers towards performance in the sub-county hospitals. The theory uses the input of workforce to ensure quality delivery of health services in public health facilities.

Empirical Review

Wamalwa (2017) study was on healthcare workers job satisfaction as influenced by health approaches. It was a case study of tier three public hospitals in Busia, County, Kenya. The study concentrated on establishing whether advancing careers, autonomy in health financing, employee motivation and working environment and conditions affected job satisfaction among the health workers in the county referral hospital and 6 sub-county

hospitals in Busia County. The respondents were healthcare workers in the hospitals and after analysis the findings showed that the healthcare workers used their abilities well and they had opportunities for career advancement. Majority of the healthcare workers did not have financial autonomy and did not receive recognition for exemplary performance and there was no link between performance and pay package received. Further study results show that promotion boosted staff morale and work environment led to job satisfaction. The study noted the need for training and reward for employee's performance, completing of the initiated building projects and ensure supply of all resources.

Kitur (2019) conducted a study on healthcare human resource capacity building initiatives and effect on sustaining HIV/AIDS services in the Siaya County Hospital. The Siaya County has a highest HIV prevalence record and hence the need for improvement in HIV care to reach the unmet target groups in terms of identification, linkage and viral suppression. The successful management of HIV is based on healthcare workers that are competent but the county faces acute shortage of staffs. There is also uneven distribution for these few competent staff across the health facilities in the nation. The focus of the study was on human resource capacity building initiatives with elements like knowledge, skills, competencies and numbers, and their influence in contract for engagement, remuneration packages, the adopted performance appraisals working conditions and turnover rates. Findings showed that the staff numbers were low in any specialized skill-set and competencies and formal trainings helped fill the capacity gaps. Results also indicated that contracts, payment, appraisals and work environment determined the staff retention rates.

Kenya (2016) studied the management style, use of IT services, training of staff and frequency of drug supplies and their influence on delivery of services with Nairobi's public hospitals. The researcher collected data from staff working in four public hospitals within Nairobi City County. The findings showed that training levels of healthcare workers had the biggest impact to service delivery at 97% of the respondents agreeing to it. Use of information systems, delegation of assignments and management of the hospitals led to improved service delivery. The researcher found out that there were gaps in the hospital management and the healthcare workers' needs were not taken into consideration which led to strikes. There was no full implementation of information technology in all departments and staff had not been trained to adapt to changes in technology and diagnostic methods. Unavailability of drugs in the healthcare facilities meant that the patients visiting the public health facilities were required to purchase drugs from the outside the facility. All these factors led to poor service delivery and decreased the effectiveness of the treatment received and recovery of the patients.

Oluoch-Aridi, Smith-Oka, Milan and Dowd (2018) study was on mistreatment of women during childbirth in peri-urban settings through the perception and experience of both the mother and the healthcare provider. The maternal deaths occurring within the health system during the delivery and labor time and women have reported poor experiences and abuse by the healthcare workers. The researcher interviewed women and healthcare workers and results showed that the female patients faced mistreatment as evidenced by being verbally abused, being neglected, discriminated and abandoned and also facing physical

abuse. The health staff revealed that the health system was weak and fragmented and the policy supporting free maternity services was poorly crafted leading to mistreatment of women. The study recommends for county governments to allocate sufficient resources that will improve the healthcare staffing levels, improve maternal health services and ensure women-centered services.

Chesoli, Schuster, Okelo and Omotayo (2018) conducted a study on how to strengthen care delivery in the primary healthcare facilities. The study was based on the perspectives of facility managers during immunization programs in Kenya, who manage the facility and offer frontline clinical activities. The aim of the study was on adoption and leverage of human resource factors for improving immunization programs and strengthening the primary healthcare delivery in Western Kenya region. Some of

the human resource factors under consideration were motivation, workload effects on immunization and how to address the workload. The study results showed that high workload led to reduced vaccination of children and the workload was due to low clinical staff levels. There was poor client counseling occasioned by the low staffing levels and hiring of more staff was noted as a remedy to high workload, motivation and immunization coverage. Frequent visits by the supervisors and acting on the feedback are important for improving program effectiveness. The study concluded by stating that there was a need to increase the staff numbers, introduce financial incentives and create strategies for supervisory visits and acting on the feedback.

Conceptual Framework

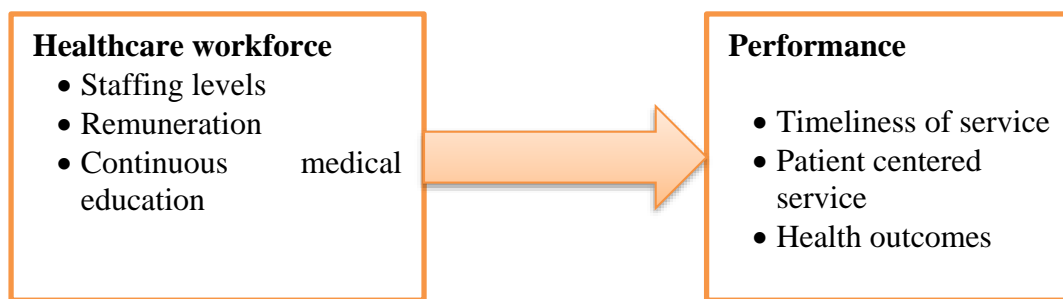


Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted descriptive study research design and targeted healthcare workers in the nine public health facilities in Makueni County. The respondents included 535 staffs in the position of medical doctors, clinical officers, nurses, laboratory technologists, and pharmaceutical technologists. Using the Taro Yamane (1967) formula a sample of 228 respondents was reached as calculated at 95% confidence level and 5% precision level. The respondents were selected using simple random sampling technique. Primary data was collected using structured questionnaires and the tools were physically administered by the research assistants. The collected data was entered into SPSS version 25.0 and Ms. Excel for analysis that was descriptive,

correlation and regression. The findings were presented in figures, tables and discussions.

RESEARCH FINDINGS AND DISCUSSIONS

Response Rate

The researcher administered 228 questionnaires in the nine sub-county hospitals in Makueni County. 166 respondents filled the tool and returned them, making the response rate of 72.8% and as per the Mugenda and Mugenda (2003) stipulation a response rate of 70% and above is fit for use in research. Therefore, the obtained 72.8% response rate in this study is ideal and fit for use. This is shown in Table 1

Table 1: Response Rate

Response Rate	Frequency	Percent
Response	166	72.8%
Non-Response	62	27.1%
Total	228	99.9%

Source: Survey Data (2022)

Descriptive Analysis Results

Healthcare Workforce

The study assessed the effect that healthcare workforce has on performance of sub-county hospitals in Makueni County, Kenya. The results are as shown in Table 2:

Table 2: Healthcare Workforce

Statement	Mean	Std. Dev.
Staffing levels in my department are sufficient	3.699	1.125
Competent employees are hired	4.295	0.732
There is rotation of staff in the department	4.403	0.660
Service delivery points have been automated at department level	4.084	0.890
The time taken by patients in the department has reduced	3.897	1.012
The process of service delivery is well understood	4.295	0.707
All staff have knowledge on the use of PPEs	4.208	0.797
Number of trainings have increased compared to last year	4.186	0.710
Employees participate in continuous medical education	4.265	0.795
Employee performance is measured every quarter	4.163	0.841
Employees are rewarded for their performance	4.138	0.965
Employee's needs are well taken care of	4.192	0.808
Improving employee commitment, morale or both is part of the product development strategy adopted by the facility	4.144	0.948
Overall Score	4.151	

Table 2 shows that the overall score for the means is at 4.151 where the respondents agreed that healthcare workforce affected performance in the sub-county hospitals. Just as Wamalwa (2017) noted that human resources are a valuable resource and driver for delivery of healthcare. The highest mean score was on rotation of staff per department at 4.403 and standard deviation for the responses at 0.660. The respondents also agreed that competent employees had been hired with mean of 4.295 and SD of 0.732 and the service delivery process is well understood at mean of 4.295 and variation in responses at 0.707. This is also shared by Kitur (2019) who revealed that competent healthcare workers led to successful management of HIV patients.

Low mean score was observed for statement on reduction in the time taken by patients to receive treatment at mean score of

3.897 and standard deviation of 1.012. On staffing levels being sufficient had means of 3.699 and standard deviation of 1.125; an indication that many respondents had contrary response on sufficiency of staff numbers. This sentiment is also shared by Chesoli, *et al.* (2018) human resource factors like motivation and workload affected the quality of services given to the patients and the time taken in the facility.

Performance

Factors affecting the performance of the sub-county hospitals in Makeni County were examined and the results are presented in Table 3.

Table 3: Performance

Statement	Mean	Std. Dev.
There is a patient service delivery charter in the facility	4.331	0.616
The turn-around-time for patients in the hospital has reduced significantly	3.668	1.124
Standard Operating Procedures (SOPs) are available	4.240	0.817
There is long-term patient retention	3.813	1.104
There is increased patient satisfaction	4.096	0.847
The organization is focused on continuous improvement	4.319	0.696
The staffs deliver patient-centered services	4.283	0.737
The facility has been accredited	4.393	0.691
There are increased health promotion programs	4.018	0.856
There is an increase in number of people seeking preventative health services	4.156	0.713
Overall Score	4.129	

Table 3 has the analysis on performance of the sub-county hospitals with overall mean score found to be 4.129. The high mean score of 4.331 and SD of 0.616 for presence of patient delivery service charter, followed by focus of the facility towards continuous improvement with mean score of 4.319 and response variation of 0.696. Just as Santarsiero, *et al.* (2019) revealed that performance in hospitals looks at stability of the facilities and capacity to deliver quality healthcare services where and when needed. The services should also be able to alleviate pain and suffering in the patients. Furthermore, Manyazewal (2017)

conveyed the need for healthcare services that focus on the patients and Ayah, *et al.* (2018) noted the need for proper utilization of medical equipment.

Low mean scores were recorded as respondents agreed that there is retention of patients for long term period with mean score of 3.813 and standard deviation of 1.104 and there is significant reduction of the turn-around-time for patients in the hospitals at mean of 3.668 and standard deviation of 1.124. Similar sentiments were shared by Ndunda (2017) who noted that there was need for many healthcare workers to reduce their workload and improve on

wait time before patients are served. Manyazewal (2017) also noted that performance is about effective, efficient and timely service provision.

The study sought to establish the strength of the association between healthcare workforce and performance and the Pearson correlation coefficient was computed at 95% confidence level.

Correlation Analysis Results

Table 4: Correlation Matrix

	Performance of sub-county hospitals		Healthcare workforce	
Performance of sub-county hospitals	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	166		
Healthcare workforce	Pearson Correlation	.714	1	
	Sig. (2-tailed)	.000		
	N	166	166	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The findings shown in Table 4 indicate that healthcare workforce had strong and positive relations to performance of the sub-county hospitals with r value of 0.714 and p-value of 0.000.

The study sought to determine whether healthcare workforce influenced the performance of the sub-county hospitals in Makueni County. The results are shown below:

Regression Analysis Results

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699 ^a	.552	.624	3.24065

a. Predictors: (Constant), Healthcare workforce

The analysis revealed that the coefficient of correlation is at 0.699 which implies that the relation between the variables is positive and significant. The adjusted R is at 0.624 which means that 62.4% of changes in performance of the sub-county hospitals

can be traced to healthcare workforce. The remaining residual effect of 37.6% of performance is determined by other factors.

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	117.503	1	117.503	46.371	.001 ^b
	Residual	415.691	164	2.534		
	Total	533.194	165			

a. Dependent Variable: Performance of healthcare facilities

b. Predictors: (Constant), Healthcare workforce

The ANOVA results shown in the Table 6 show that F calculated is greater than the F critical (46.371 > 2.660) showing the model is fit and p-value is at 0.001 which is less than standard of 0.05 an indication of positive link. The healthcare workforce

significantly influences performance in the sub-county hospitals in Makueni County.

Table 7: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	5.841	3.126		1.868	.000
	Healthcare Workforce	4.753	1.340	.105	3.547	.000

a. Dependent Variable: Performance of healthcare facilities

The Resulting Equation takes this form:

$$Y = 5.841 + 4.753X_1 \text{ Healthcare workforce} \dots\dots\dots (I)$$

Where Y = Performance and X₁ = Healthcare workforce

Table 7 shows that at constant the performance of sub-county hospitals in Makueni County is at 5.841 and a unit increase in healthcare workforce result in performance increasing by 4.753. The healthcare workforce had significant effect to performance of the sub-county hospitals in Makueni County since 0.00 < 0.05. Just as Kenya (2016) revealed that healthcare workers capacity improvement through trainings led to huge impacts on service delivery.

V. CONCLUSION

Majority of the respondents agreed that performance of their health facility had improved in terms of low turn-around time, patient-centered services, high satisfaction and retention of patients. There was continuous improvement at the health facilities based on service delivery charters and standard operating procedures and health promotion programs. The study concluded that hiring competent and knowledgeable staffs, having adequate numbers of staffs in every department led to improved performance. When the hospitals took care of the needs of the employees and they were rewarded for working hard, the motivation and commitment levels rose and positively impacted performance of the overall hospitals. From the correlation analysis, it was established that healthcare workforce had positive and significant effects to performance of the sub-county hospitals in Makueni County, Kenya.

VI. RECOMMENDATIONS

The study found and concluded that healthcare workforce improve performance of hospitals. Therefore, sub-county hospitals are advised to have competent and sufficient numbers of healthcare workers. The healthcare facilities must provide their workers with education and training programs to increase their knowledge and skills that result in improved productivity. There is also need to reward best performing healthcare workers as a motivation and encouragement to other staffs. The study recommends that for higher outcomes, the health facilities must be able to take care of the needs of the workforce which will motivate them and increase their commitment levels.

REFERENCES

[1] Abate, G. T., Dereje, M., Hirvonen, K., & Minten, B. (2020). Geography of public service delivery in rural Ethiopia. *World Development*, 136, 105133

[2] Achoki, T., Hovels, A., Masiye, F., Lesego, A., Leufkens, H., & Kinfu, Y. (2017). Technical and scale efficiency in the delivery of child health services in Zambia: results from data envelopment analysis. *BMJ open*, 7(1), 012321

[3] Arumona, J., Erin, O., Onmonya, L., & Omatayo, V. (2019). Board financial education and firm performance: Evidence from the healthcare sector in Nigeria. *Academy of Strategic Management Journal*, 18(4), 1-13.

[4] Ayah, R., Ongore, D., & Agwanda, A. T. (2018). Measuring the effectiveness of maternal delivery services: a cross-sectional and qualitative study of perinatal mortality in six primary referral hospitals, Kenya. *F1000-Research*, 7(732), 732

[5] Banabakova, V., & Georgiev, M. (2018). The role of the Balanced Scorecard as a tool of strategic management and control. *Ijasos-International E-Journal of Advances in Social Sciences*, 4(10)

[6] Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, 27(6), 643-650

[7] Cantor, V. J. M., & Poh, K. L. (2018). Integrated analysis of healthcare efficiency: a systematic review. *Journal of medical systems*, 42(1), 1-23

[8] Chesoli, R. N., Schuster, R. C., Okelo, S., & Omatayo, M. O. (2018). Strengthening care delivery in primary care facilities: perspectives of facility managers on the immunization program in Kenya. *International journal of health policy and management*, 7(12), 1130

[9] Diop, B. Z., Awoonor-Williams, K., Ofosu, A., & Williams, M. J. (2019). Understanding the Allocation of Public Personnel Across Government Health Facilities in Ghana. *International Growth Centre, London School of Economics*, 3 (1) 1-31

[10] Gitobu, C. M., Gichangi, P. B., & Mwanda, W. O. (2018). The effect of Kenya's free maternal health care policy on the utilization of health facility delivery services and maternal and neonatal mortality in public health facilities. *BMC pregnancy and childbirth*, 18(1), 1-11

[11] Hakkak, M., & Ghodsi, M. (2015). Development of a sustainable competitive advantage model based on balanced scorecard. *International Journal of Asian Social Science*, 5(5), 298-308.

[12] Hamzah, N.M., & See, K. F. (2019). Technical efficiency and its influencing factors in Malaysian hospital pharmacy services. *Health care management science*, 22(3), 462-474

[13] Hitt, M. A., Carnes, C. M., & Xu, K. (2016). A current view of resource-based theory in operations management: A response to Bromiley and Rau. *Journal of Operations Management*, 41(10), 107-109.

[14] Kasanga, B., Muthoni, E., & Oluoch, M. (2019). Status of Health workers Knowledge on Maternal and Neonatal Health related to Service Delivery in Makueni County (Dissertation, KeMU)

[15] Kenya, B. O. (2016). Factors influencing service delivery in public hospitals: A case of Nairobi County, Kenya (Doctoral dissertation, University of Nairobi).

[16] Kimanzi, L. M. (2020). Universal Health Care on Health and Welfare of Residents of Makueni County: A Case Study of Mbooni Sub County Hospital, Makueni County (Dissertation, MUA).

[17] Kitur, G. (2019). Health Care Human Resource Capacity Building Initiatives Influencing Sustainability of HIV/AIDS Services at Siaya County Referral Hospital, Kenya (Doctoral dissertation, University of Nairobi)

[18] Miseda, M. H., Were, S. O., Muriangi, C. A., Mutuku, M. P., & Mutwiwa, S. N. (2017). The implication of the shortage of health workforce specialist on universal health coverage in Kenya. *Human resources for health*, 15(1), 1-7

[19] Ndunda, P. M. (2017). Total Quality Management and Operational Performance of Public Health Facilities in Makueni County (Doctoral dissertation, University of Nairobi)

[20] Nørreklit, H., Kure, N., & Trencu, M. (2018). Balanced scorecard. *The international encyclopedia of strategic communication*, 1-6

[21] Oluoch-Aridi, J., Smith-Oka, V., Milan, E., & Dowd, R. (2018). Exploring mistreatment of women during childbirth in a peri-urban setting in Kenya: Experiences and perceptions of women and healthcare providers. *Reproductive Health*, 15(1) 18-43

[22] Olusola, A., Olusola, B., Onafeso, O., Ajiola, F., & Adelabu, S. (2020). Early geography of the coronavirus disease outbreak in Nigeria. *GeoJournal*, 1-15.

[23] Osborne, D., & Gaebler, T. (1992). *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (494-494)

[24] Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley & Sons Inc. Penrose, E. T, 1, 1-23.

[25] Radnor, Z., Osborne, S., & Glennon, R. (2016). *Public management theory. In Handbook on theories of governance*. Edward Elgar Publishing

[26] Stephen, S. O., & Bula, H. (2017). Human resource management practices and quality of health care service delivery at Jaramogi Oginga Odinga teaching and referral hospital, Kenya. *Human Resource Management*, 10(10), 126-140.

- [27] Wamalwa, E. (2017). Influence of Health Approaches on Job Satisfaction Among Healthcare Workers: A Case of Tier 3 Public Hospitals in Busia County, Kenya (Doctoral dissertation, University of Nairobi).
- [28] Wernerfelt, B. (1984). Resource-based view of the firm. Strategic management journal, 5(2), 171-180

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