

Assessment of Financial and Workforce Impacts on Health Service Delivery in Mogadishu, Somalia

Mohamed Ibrahim Abdi-Soojeede¹, Tom Mulegi²

¹Department of Public Health, Hope University, Mogadishu, Somalia

²Department of Public Administration, Kampala International University, Kampala, Uganda

Email: drsoojeede@gmail.com

How to cite this paper: Abdi-Soojeede, M. I., & Mulegi, T. (2025). Assessment of Financial and Workforce Impacts on Health Service Delivery in Mogadishu, Somalia. *Voice of the Publisher*, 11, 136-159. <https://doi.org/10.4236/vp.2025.111012>

Received: February 23, 2025

Accepted: March 18, 2025

Published: March 21, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This research topic focuses on the financial management and the competencies of the workforce in healthcare service delivery, and specifically, the objective of the study is to assess the financial management and the workforce's competence in service delivery in the health sector in Mogadishu, Somalia. **Method:** This study area is among Benadir and Aden Abdulle hospitals in Wadajir District in Mogadishu, Somalia. The time scope was from May until August 10, 2024. Participants totaled 210, and the sample selection technique adopted in the study was non-probability convenient sampling. In this regard, they are the most accessible to the researcher, and they interviewed 26 key informants, while the total respondents sampled amounted to 236. Information was gathered from respondents through self-completed questionnaires from the clients and interviews with key informants. **Result:** Descriptive statistics show that respondents have a positive attitude towards financial management concerning different aspects and the largest agreement on the impact of financial management on patient satisfaction. The study also reveals that skills in terms of qualification, communication, and teamwork in the entire healthcare workforce, described as workforce competencies, play a huge role in determining the quality of care across various hospitals. There is real evidence demonstrated through ANOVA outcomes suggesting large disparities in financing behaviors, including resource acquisition, revenue generation, and medical structures in hospitals to performance. In the same way, workforce competencies like training and patient safety practices differ in the degree to which they enhance the quality of care. **Recommendation:** The outcomes imply that better financial management and efficient health human capital are crucial for increasing the quality of healthcare and the effectiveness of the hospitals, offering useful information for enhancing tactics to be used by professionals and managers in relation to altering the overall processes of care supply.

Keywords

Finance, Workforce, Service Delivery, Impacts, Hospitals, Mogadishu

1. Introduction

The provision of health care services is the core of development, more so in countries that are in the process of reconstruction, such as Somalia. Financial levels in health centers are very low, and the healthcare workforce in Mogadishu, Somalia, is insufficient to meet the health needs of the population. The mentioned are the shortage of quality healthcare professionals and the problems with the quantity and quality of healthcare services. This paper measures the effectiveness of financial resources to service delivery and workforce competence using a sample health finance system in Mogadishu, Somalia (Ahmed et al., 2023; Heritage Institute and City University of Mogadishu, 2020; Ministry of Health and Human Services, Federal Government of Somalia, 2022).

The main purpose of this research study is to evaluate the competence of the financial management and workforce in service delivery in Mogadishu, Somalia. In particular, it tries to assess the effectiveness of healthcare financial management, assess the ways in which the effectiveness of the workforce affects the service, and ascertain the difficulties experienced in rendering equal access to universal health-related services. The present research is relevant as there are a number of deficits in the Somali healthcare system due to a financial crisis and a shortage of proper staff. Understanding these impacts, the research will be beneficial for the formulation of policies that will increase the effectiveness of health care delivery and the workforce, as well as better distribute financial resources with the help of recommendations for policymakers, health care administrators, and international funders.

2. Literature Review

2.1. Assessment of the Healthcare Financial System

Healthcare finance in Somalia is another issue that largely affects the country's health system. A health financing household survey conducted in 2020 by the Directorate of National Statistics showed that 48% of the households in Somalia financed healthcare out-of-pocket, while only 2% used health insurance to pay the cost (MOH, 2021). There are scarce charges in South Central Somalia, where most of the health facilities provide these services for free, but in some instances, minimal charges may be levied (Danish Immigration Service, 2020a). The commonly emphasized areas of PHC, particularly those focusing on maternal and child health, constitute the largest share of the list of public health services. However, the influence is seen in the health sector, particularly in hospitals, where they were capable of distinguishing between the rich and the poor who were unable to afford to pay for their treatment (Danish Immigration Service, 2020b).

Below are some of the reasons as to why healthcare financial practices are important to the organization of health services: Financial management entails the responsibility for the proper utilization of funds required for the running of healthcare organizations and the delivery of quality healthcare. In their article also, [Wang et al. \(2021\)](#) noted that adequate financial planning and implementation are crucial for achieving balance in referral turnover and capacity in the health sector. According to their findings, lack of sufficient funds hinders efficiency, especially where referral payments are in excess, thus compromising the health of the system and the patient. This perspective has provided a background on the need for proper financial control in order to minimize expenditure yet maximize resource use in order to improve the services offered without compromising on efficiency.

Several works on the topic of healthcare finance have also highlighted the exclusions and consequences of the same, including in low-income countries such as Somalia. According to [Warsame \(2020\)](#), Somalia heavily relies on its donors for health financing because it has a very poor tax system, and the total government expenditure on health in 2017 was below 1 percent of total government expenditure. Due to this, the patients are forced to incur out-of-pocket expenditures, whereby a majority of Somali households have been sourcing medical expenses through personal income or loans. In the same regard, but in the Kenyan context, a greater percentage was provided by the government; the government of Kenya spent only 1.7% of its GDP on health in the year 2015, which is quite small but still much better than the country of Somalia. A major issue that arises from this continued dependence on external funding, therefore, is establishing the sustainability of service delivery since financial accountability remains a significant challenge to the Somali healthcare system due to the limited monetary independence of the government to address the health sector's infrastructure and human capital.

The theories of the financial management of healthcare institutions also stress the concept of financial sustainability in order to provide equal access to health services. [Rowe et al. \(2018\)](#) presented that meeting Universal Health Coverage (UHC) demands more than competent human capital in the form of the healthcare workforce; it also demands sufficient capital to support the investments to ensure that the healthcare workforce can offer quality services. This means maintaining and balancing financial resources in a way that will allow for the use of limited resources in the most efficient manner, especially where the cost is justified by the impact it has on the provision of care to the patients. The cross-country analysis of the Somali and other nations' health financing systems underscores the fact that financial management is a key determinant of the health status of nations. Healthcare financing refers to the management and coordination of funds that provide healthcare services so that individuals can obtain the necessary care they need affordably and of good quality, as this contributes to the achievement of UHC and outcomes in health-related afflictions in Somalia.

2.2. Influence of Workforce Competence

Adequate human resources for health and practicing protocols meeting evidence-based medicine are crucial if UHC is to be attained (Rowe et al., 2018). However, the number of skilled health workers in Somalia is critically low and there is a need to train many more professionals in this field. For the same year, Somalia current healthcare human resources totaled 9566 health workers; this translates to a critical health staff ratio of 0.34 per 1000 people, which is much below the World Health Organization's recommended minimum of 4.5 health workers per 10,000 people (WHO, 2016). Such a shortage was most acute in rural and nomadic population which lacked access to qualified healthcare professionals to begin with.

According to Warsame (2020), by 2030, Somalia will require 97,700 healthcare professionals to deliver on UHC. Qualified workers are, due to migration to other safer areas or countries or even to other urban centers, remarking the imbalance of the healthcare workforce in a given region or country. It has also impacted the efficiency of outreach programs with the aim of extending services such as education, healthcare and other social services to rural and nomadic people.

According to a survey conducted in 2019, there were only 6918 salaried health workers in the public sector in Somalia; this reveals a huge deficiency in the health workforce in all the cadres (Danish Immigration Service (DIS), 2020a). About 42% of health workers are female, which is essential for addressing cultural and religious barriers to seeking medical care in Somalia, Somaliland, and Puntland, according to the Ministry of Health.

This is supported by the theories of human resource management that recognize skills and capabilities of people as key to organizational objectives. According to the Resource-Based View (RBV) model developed by Barney in 1991, human resources are strategic human assets that dictate an organization's competitive edge. In the healthcare sector, this theory means that health facilities that have a more competent human capital are capable of providing quality services, thus promoting health. Gopichandran (2022) has also highlighted that in India, for instance, the CHW programs have been effective by developing the competence of the CHWs in providing basic health services, thereby allowing enhanced skills of other professionals to address complication cases as they optimized service delivery.

When comparing the opinions of various authors, it becomes clear that although the value of enhancing workforce competencies is unanimous, the steps to implement this are not. In the opinion of Mundeve et al. (2018), task shifting, where persons of lower skill take up certain tasks with more qualified personnel, is useful where resources are scarce. Yet this strategy has proven to be effective and inefficient at the same time. Task shifting, where individuals with lower skill levels assume tasks typically performed by more qualified personnel, is particularly beneficial in resource-scarce settings. However, when not properly managed, it can lead to fluctuations in service delivery. Das et al. (2023) discuss how the COVID-19 pandemic intensified the need for task shifting, highlighting both its

positive impacts and the challenges it presents. This is in contrast to the argument which holds the view that having a more qualified workforce will mean that service delivery will be better since competence equates to qualification on the belief that qualification is competence without realizing that it has to do with the right deployment of the skills within the health system.

3. Methods and Materials

3.1. Design and Study Area

This study was done among two hospitals in Wadajir District in Mogadishu, Somalia. Somalia is a country in East Africa whose capital is Mogadishu. The period of time has been estimated as May 20 until August 10, 2024. The study chose Benadir and Aden Abdulle hospitals because of the comparison of respondents' views of the impacts of financial and workers' competence on service delivery, and secondly, Benadir hospital of the study is a public hospital while Aden Abdulle is private to check the impacts of financial and worker's competences on services with the views of both public and private workers.

Benadir Hospital works as a public teaching hospital, mother-and-child hospital and a referral hospital for the Benadir region. The hospital services have been in operation since 1976, but the civil war has stopped its functions. It has between 550 to 700 beds, and it falls under the Ministry of Health and Family welfare of the respective country. That is, there are 398 employees in total, including the non-clinical personnel. In fact, Benadir Hospital is a referral hospital for the most vulnerable part of society, and over 3000 people utilize its medical services in a calendar month.

Aden Abdulle Hospital (AAH) is a non-governmental healthcare facility that is involved in enhancing the quality of people's health through provision of affordable, appropriate and quality inpatient and outpatient healthcare services that are fairly priced and accessible. The location of Aden Abdulle Hospital is at Km 5 Wadajir District, Mogadishu-Somalia. Responding to a critical need for medical services in a city that is greatly in need, Aden Abdulle Hospital (AAH) was started on September 9th, 2007 and has grown to be one of the biggest general hospitals in Mogadishu.

3.2. Sample Size

Slovene's Formula is a formula where the total population is taken into consideration, and a sample size of 236 out of a total population of 557 is obtained. This study utilized simple random sampling, ensuring each member of the target population had an equal chance of selection. The sample of 236 individuals included 22 managers, 143 nurses, 45 doctors, and 26 ministry workers. This approach facilitated the collection of representative data suitable for statistical analysis. Thus, some institutions received more responses than others because the researcher only acted in an ethically appropriate manner and asked each participant if he or she was willing to fill out the questionnaire.

3.3. Data Collection

Data was collected on respondents through a self-administration questionnaire administered to the clients and interviews with the key informants. In this study, the researcher employed self-administered questionnaires, ensuring clarity and logical coherence, and translated them into Somali to accommodate native speakers. Additionally, interviews were conducted with key informants, including hospital management teams and Ministry of Health staff, to gain comprehensive insights into the healthcare system. For accurate translations, professional services such as the Somali Researchers Association were utilized, offering specialized translation of questionnaires and reports. As a result, the questionnaire was short, clear, and logically developed; it included elements from WHO's primary healthcare measurement framework and indicators (WHO, 2010). The survey generated an adequate response rate of 90% of the respondents, where only 10 dropped out.

3.4. Ethical Consideration

All the research activities were approved by Hope University's Research Ethics Committee. The consent to conduct the study was also sought and granted by the academic directors, including Mr. Abdirahman Mohamud Sh. Ahmed. The participants' consent was obtained from them after being told the intentions of the study. To encourage their participation, participants were assured that the study was voluntary, they would not be compensated in any way, and their identity would remain anonymous.

3.5. Data Analysis

These data were then entered into Excel, and the analysis was done in IBM SPSS version 22, so therefore, frequency tables, descriptive statistics, and inferential statistics like significance p value and coefficient of correlation were used. Thus the confidence interval is 0.95, which is a percentage of 95% with the significance of a p value of 0.05. Thus, just so simple, a researcher will offer a reliability scale in measurement of the data consistency using Cronbach's alpha, and if the degree of consistency of the data is greater than or if the percentage value remains below 60%, it is regarded as accurate or reliable data. In **Table 1**. The reliability test was .955, with a total of 29 items.

Table 1. Reliability test.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.955	29

4. Results

4.1. Demographic Information

Table 2, the researcher visited two different hospitals, including Benadir Hospital

145 (63.0%) and Aden Abdulle Hospital 65 (30.9%), to compile the demographic variables that are displayed in this table. Because Benadir Hospital is public and the Aden Abdulle Hospital is private, these were specifically chosen.

Table 2. Hospitals.

		Hospitals		
		Frequency	Percent	Cumulative Percent
	Benadir Hospital	145	69.0	69.0
Valid	Aden Abdulle Hospital	65	31.0	100.0
	Total	210	100.0	

Source: Primary data.

Table 3. Sex, age and marital status.

		Sex		
		Frequency	Percent	Cumulative Percent
	Male	144	68.6	68.6
Valid	Female	66	31.4	100.0
	Total	210	100.0	
		Age		
		Frequency	Percent	Cumulative Percent
	20 - 25	86	41.0	41.0
	25 - 30	76	36.2	77.1
Valid	30 - 35	38	18.1	95.2
	35 - 40	8	3.8	99.0
	40 - 45	2	1.0	100.0
	Total	210	100.0	
		Marital status		
		Frequency	Percent	Cumulative Percent
	Single	152	72.4	72.4
	Married	53	25.2	97.6
Valid	Divorced	4	1.9	99.5
	Widow/widowed	1	.5	100.0
	Total	210	100.0	

Source: Primary data.

Table 4. Education and occupation.

		Education Level		
		Frequency	Percent	Cumulative Percent
Valid	Certificate	16	7.6	7.6
	Diploma	17	8.1	15.7

Continued

	Bachelor	149	71.0	86.7
	Master	28	13.3	100.0
	Total	210	100.0	
Occupation				
		Frequency	Percent	Cumulative Percent
	Manager	22	10.5	10.5
	Nurses	143	68.1	78.6
Valid	Doctors	35	16.7	95.2
	Lab technicians	10	4.8	100.0
	Total	210	100.0	

Male respondents outnumbered female respondents in **Table 3** by a percentage of 144 (68.6%) and 66 (31.4%), respectively. The majority of responders were young; among the first group, 86 (41.0%) were between the ages of 20 and 25; the second group, 25 - 30, 76 (36.2%); the third group, 30 - 35, 38 (18.1%); the fourth group, between 35 - 40, 8 (3.8%); and the last, among those between the ages of 40 and 45, 2 (1.0%) (**Table 3**). Also, **Table 3** includes marital status, as 53 (25.2%) of the respondents were married, 152 (72.4%) were single, divorced 4 (1.9%), and widow/widowed 1 (0.5). The majority of respondents—who were either health workers or young members of unmarried groups—were single. Based on **Table 4**, it can be observed that 149 (71.0%) health workers possess a bachelor's degree, while 28 (13.3%) have a master's degree, 17 (8.1%) of them have diplomas, and 16 (7.6%) are members of small groups with certificate holders. The respondents' occupations were in four different categories: manager 22 (10.5%), nurses 143 (68.1%), doctors 35 (16.7%), and lab technicians 10 (4.8%). So the majority of the respondents were nurses, who were first line medical staff.

4.2. Impacts of Financial Management of Hospitals on Health Services Delivery

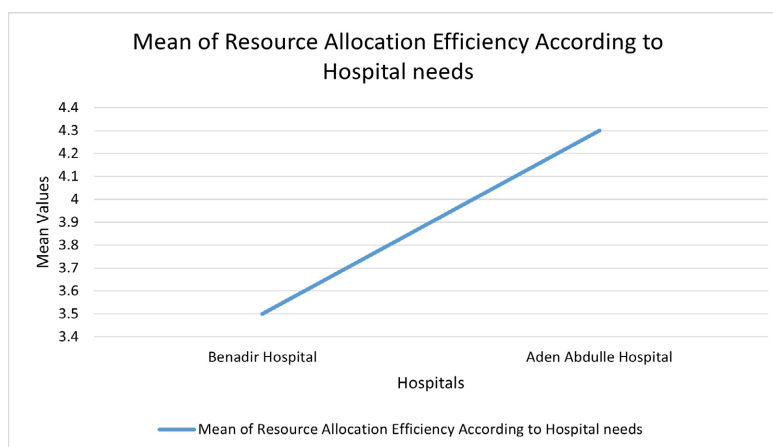


Figure 1. Resource allocation according to the hospital needs.

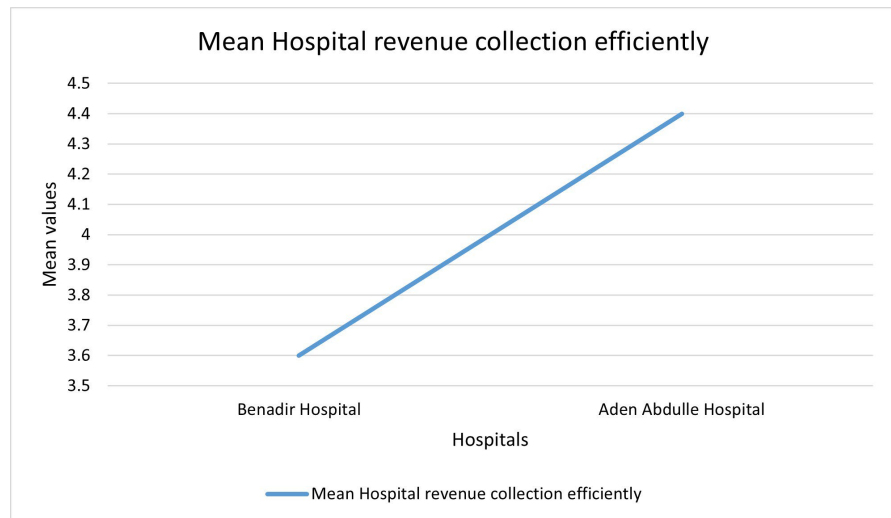


Figure 2. The hospital has an effective revenue collection system in place.

Figure 1. This line graphs the efficiency of resource utilization in Benadir Hospital and Aden Abdulle Hospital. The hospital has scored an efficiency of 3.50 out of five—a rating indicating that there's potential for better efficiency. Aden Abdulle Hospital, in contrast, receives a higher efficiency score of 4.30/P utmost, reflecting a better fit in terms of operational requirements. A comparison of figures also reveals that Aden Abdulle Hospital has improved the allocation of its resources by a high percentage. These are the highlights of research to illustrate the significance of improving the ways that healthcare institutions allocate resources; the lessons from Benadir Hospital can be used to enhance the clear design of strategies to deal with the challenges of resource allocation procedures and to increase the general quality of service delivery.

Figure 2. This chart illustrates the percentage of revenue collected by two hospitals, Benadir Hospital and Aden Abdulle Hospital. The system scored 3.60 out of the maximum of 5, meaning that it can only be described as moderately effective because its funding comes from donor fund organizations and little investment from the government. The various hospitals' efficiency was measured with the system performance; the higher the mean, the better the efficiency, and the results were as follows: Benadir Hospital 3.60, while Aden Abdulle Hospital 4.40 demonstrated efficiency in technology, qualified staff, and well-developed policies. The positive developments indicate that Aden Abdulle Hospital collections are higher than those of Benadir Hospital, suggesting that it might have better efficiency in revenue collection due to differences in management practices, and support.

Figure 3. According to the chart below, Benadir Hospital has a higher percentage of efficient financial reporting than Aden Abdulle Hospital. Benadir Hospital has a modest level of respondent agreement with the statement, which can show irregularities or inequalities in its frequency or allocation. On the other hand, the Aden Abdulle Hospital has a relatively higher mean rating of 4.4 in the analysis,

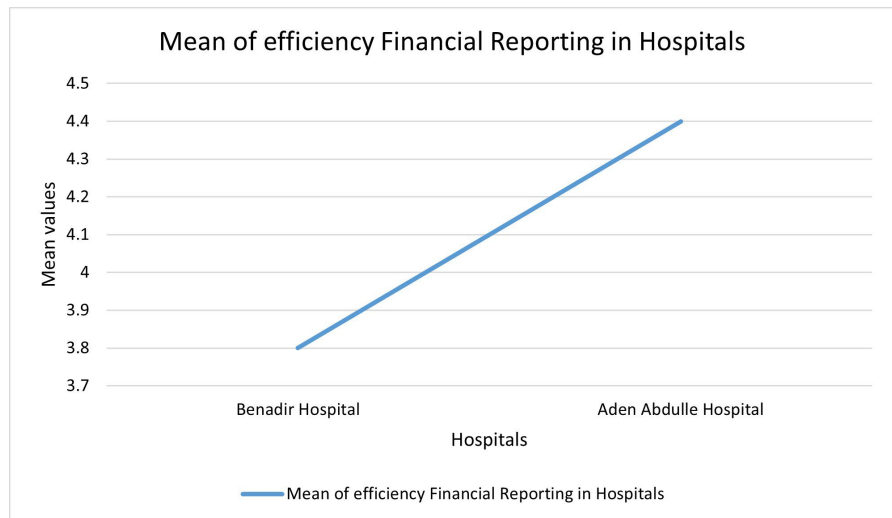


Figure 3. Financial reporting efficiency.

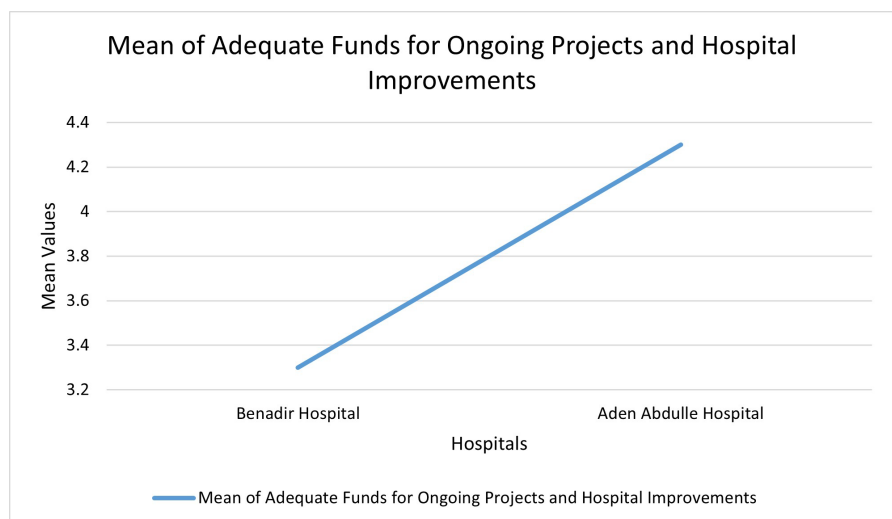


Figure 4. Adequate funds for ongoing projects and hospital improvements.

implying that there is a way of doing the financial reporting. It is for this reason that the differences in the results can be ascribed to dissimilarities in the administrative procedures, the access to resources, or the organizational culture of the two institutions. The improved financial reporting could improve efficiency of decision-making and stakeholder confidence in Aden Abdulle Hospital. On the other hand, the findings indicate that Benadir Hospital faces challenges or gaps in the same area in order to attain a similar performance.

Figure 4. In the graph, the respondents have rated the funding sources for two hospitals: Benadir Hospital and Aden Abdulle Hospital. The mean value of the money perception displays that Benadir Hospital has only a moderate and not optimally sufficient view of funds with a mean value of 3.25. This could be due to financial constraints, a lack of resources, or inadequate management of funds available to implement various activities. The mean value obtained was, on the

other hand, Aden Abdulle Hospital, which is 4.25, which is high compared to Benadir Hospital, which shows that the respondents believed that adequate funds were available because this was a private investment. This split shows the level of variation in funding availability that can only be resolved by targeted intervention to start with and then improve management. Managers should find out about the factors that have led to the lower rating and work for ways of funding adequacy enhancement.

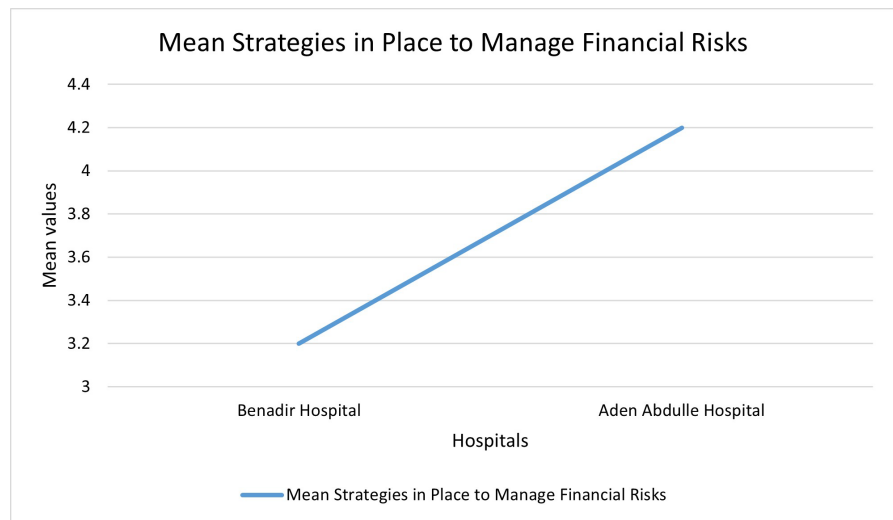


Figure 5. Strategies in place to manage financial Risks.

In **Figure 5**, the graph analyzes the perception of respondents between Benadir and Aden Abdulle Hospital on the strategies of financial risk management. For perception of these strategies, Benadir Hospital has a moderate mean 3.25. Mean values of 4.25 at Aden Abdulle Hospital imply greater concurrence among respondents that strong strategies to manage financial risk are available. This disparity implies that there is a gap in the viability of strategies for financial risk management. The findings indicated that stakeholders at Benadir Hospital need to concentrate on identifying and closing gaps in their strategies, strengthen their strategies, and ensure effective communication with relevant stakeholders to improve perceptions and confidence in Benadir Hospital’s ability to maximally mitigate financial risks.

Table 5. Overall impact of financial management on health services.

Descriptive Statistics			
	Mean	Std. Deviation	Interpretation
How would you rate the overall impact of your hospital’s financial management on the quality of health services delivered?	3.85	1.204	Agreed
How would you rate the overall impact of your hospital’s financial management on patient satisfaction?	3.93	1.126	Agreed

Continued

How would you rate the overall impact of your hospital's financial management on the efficiency of service delivery?	3.80	1.178	Agreed
How would you rate the overall impact of your hospital's financial management on the hospital's ability to respond to emergencies?	3.73	1.274	Agreed
How would you rate the overall impact of your hospital's financial management on the hospital's financial stability?	3.84	1.149	Agreed
Total accumulative Average of Mean and Std	3.83	1.1862	Agreed

Source: Primary data.

Table 5. Study descriptive statistics based on responses from 210 participants report a positive consensus that financial management has a positive impact on several dimensions of healthcare delivery. Scores ranged from 3.73 to 3.93, indicating that managers agree that financial management is a factor in the quality of health services, patient satisfaction, the efficiency of service delivery, and emergency response, in addition to the financial stability of the hospital. However, minor variations in responses were seen, especially in terms of emergency response, but standard deviations were relatively low (ranging from 1.126 to 1.274), indicating a shared notion that excellent financial management can greatly contribute to improving the outcome of health. The highest endorsement was received by patient satisfaction among the items assessed, which confirms the crucial role of financial management in enhancing service quality and hospital performance.

4.3. Impacts of Workforce Competencies of Hospitals on Health Services Delivery

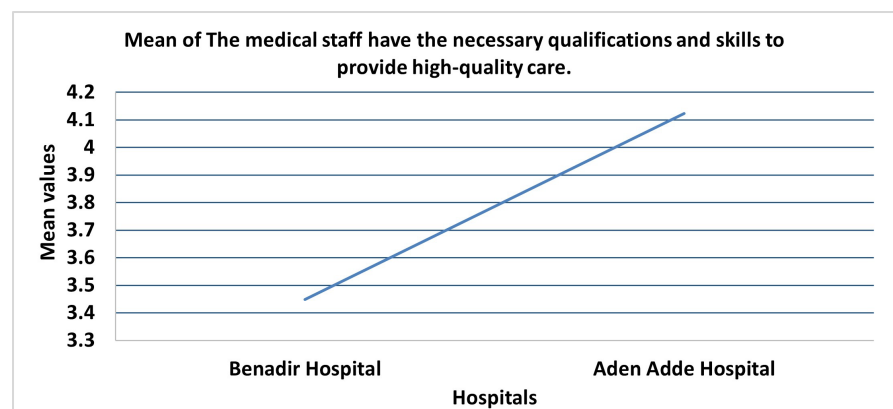


Figure 6. The medical staff have the necessary qualifications and skills to provide high-quality care.

Figure 6. The line graph provided shows the average opinion of medical staff and the skills and qualifications needed to guarantee the quality of care in Benadir Hospital and Aden Abdulle Hospital. From Benadir Hospital to Aden Abdulle Hospital, we notice a noticeable improvement in the mean value. Around 3.6, the

mean for Benadir Hospital is 4.2 for Aden Abdulle Hospital. Consequently, these indicate that respondents believe the staff of Aden Abdulle Hospital is more qualified and skilled to offer high-quality care than Benadir Hospital.

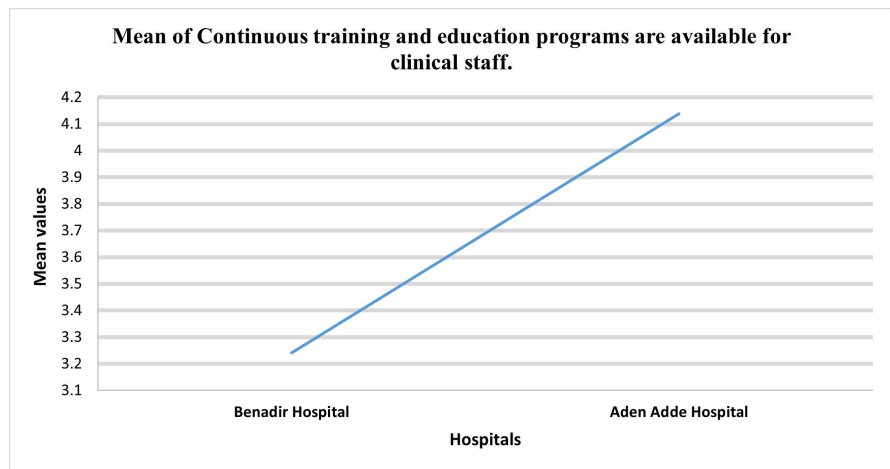


Figure 7. Continuous training and education programs are available for clinical staff.

Figure 7. Estimates show a positive trend in the number of continued staff training and education programs in two hospitals: Benadir Hospital and Aden Abdulle Hospital. A slightly higher mean score was found regarding programs for staff development at Aden Abdulle Hospital. This implies differences in emphasis on staff clinical development. The rising issue stresses the need for continued education to enhance healthcare professionals’ competency. The specific types of training programs given in each hospital could then be analyzed, and the specific factors contributing to this variation could be further investigated.

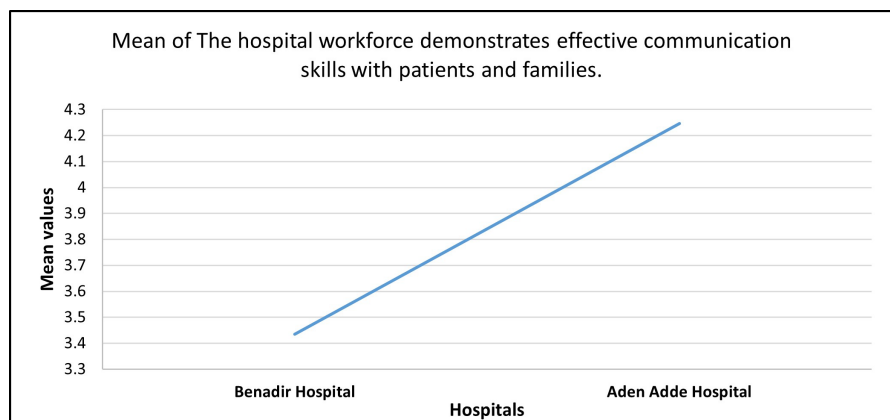


Figure 8. The hospital workforce demonstrates effective communication skills with patients and families.

Figure 8. The graph shows a slight upward trend in the mean score of the hospital workforce’s ability to demonstrate effective communication skills with patients and families in two hospitals: Benadir Hospital and Aden Abdulle Hospital.

The better communication skills of staff at Aden Abdulle Hospital are suggested by this. But it is a moderate difference that shows there is a void for communication effectiveness between the two hospitals. Further research might shed light on how these skills are acquired and continue to be utilized for the benefit of humans' overall communication effectiveness.

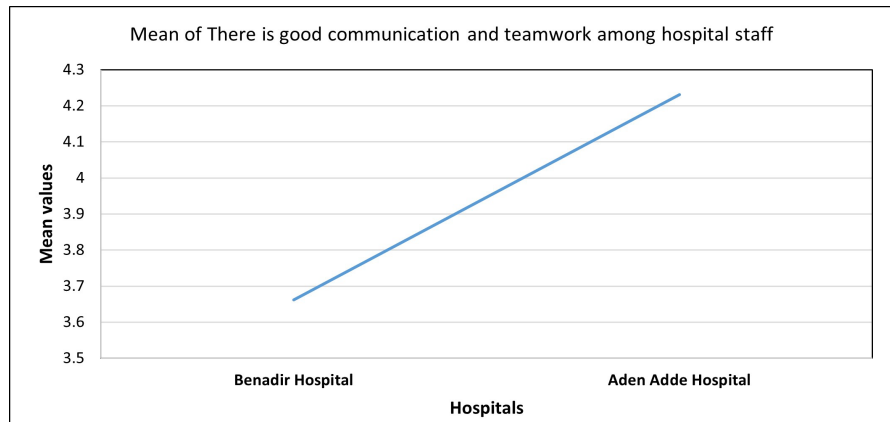


Figure 9. There is good communication and teamwork among hospital staff.

Figure 9. There is a positive trend in the perception of good communication and teamwork by hospital staff at Benadir Hospital and Aden Abdulle Hospital. The mean score at Aden Abdulle Hospital was higher, meaning that teamwork and communication were stronger. These findings suggest that collaboration and communication are even more important for successful delivery of healthcare. It may simply be that staff interacts better, that staff is better trained in communication, or that there are policies that promote collaboration. Analysis of Benadir Hospital could be further carried out for improvement in such areas.

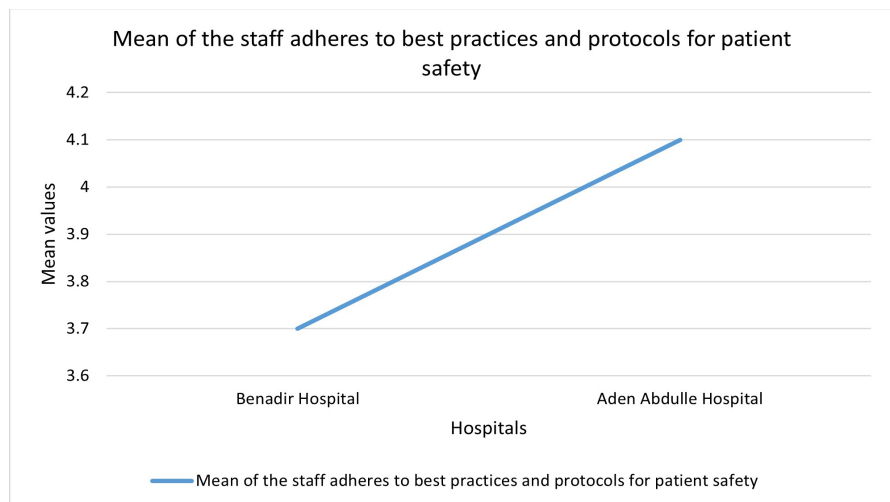


Figure 10. The staff adheres to best practices and protocols for patient safety.

Figure 10. The graph shows a positive trend in the hospital staff adherence to

protocols for patient safety in Benadir Hospital and Aden Abdulle Hospital. Results indicate that staff at Aden Abdulle Hospital are more likely to follow best practices protocols for patient safety than the staff at MANHG. This implies that for effective healthcare delivery, patient safety practices and protocols are much more important.

Table 6. Overall impacts of Workforce competence on health.

Descriptive Statistics			
	Mean	Std. Deviation	Interpretation
How would you rate the overall impact of your hospital's workforce competencies on the quality of health services delivered?	3.63	1.385	Agreed
How would you rate the overall impact of your hospital's workforce competencies on patient satisfaction?	3.60	1.313	Agreed
How would you rate the overall impact of your hospital's workforce competencies on the efficiency of service delivery?	3.47	1.356	Agreed
How would you rate the overall impact of your hospital's workforce competencies on patient safety?	3.52	1.360	Agreed
How would you rate the overall impact of your hospital's workforce competencies on innovation and improvement?	3.69	1.296	Agreed
Total accumulative Average of Mean and Std	3.582	1.342	Agreed

Source: Primary data.

Table 6. Responses from 210 participants on the hospital workforce competencies in impacting healthcare service delivery are described using descriptive statistics, which attest to a generally positive perception across various dimensions. Respondents ranged mean scores from 3.47 to 3.69 and agreed that workforce competencies positively impact the quality of health services, patient satisfaction, efficiency, patient safety, and innovation. In areas such as service delivery efficiency and patient safety, the impact was perceived to be weaker, but responses showed moderate variability. Innovation and improvement, with the highest mean score of 3.69, implies workforce competencies were considered most predominant in driving progress in these areas. In general, the participants agreed that workforce competencies improved healthcare, but the variation in responses indicates divergence in responses among the respondents.

4.4. Analysis of Variance (ANOVA)

4.4.1. Analysis of Variance (ANOVA) of Financial Management Practices

Table 7 presents the ANOVA results showing significantly different perceptions of various financial management practices in hospitals that involve variance in budgeting, resource management, revenue generation and financial disclosure. More specifically, resource utilization had substantial variation specifically ($F = 26.859, p < 0.001$), indicating that some hospitals are more efficacious at targeting

Table 7. ANOVA of financial management practices of hospitals.

		ANOVA				
		Sum of Squares	Df	Mean Square	F	Sig.
Resources are allocated efficiently according to the hospital's needs.	Between Groups	124.684	4	31.171	26.859	<0.001
	Within Groups	237.912	205	1.161		
	Total	362.595	209			
The hospital has effective revenue collection systems in place.	Between Groups	129.995	4	32.499	29.076	<0.001
	Within Groups	229.129	205	1.118		
	Total	359.124	209			
Financial reports are generated regularly and shared with relevant stakeholders.	Between Groups	68.931	4	17.233	11.340	<0.001
	Within Groups	311.526	205	1.520		
	Total	380.457	209			
There are adequate funds for ongoing projects and hospital improvements.	Between Groups	97.314	4	24.329	14.368	<0.001
	Within Groups	347.110	205	1.693		
	Total	444.424	209			
The hospital has strategies in place to manage financial risks.	Between Groups	152.129	4	38.032	25.162	<0.001
	Within Groups	309.852	205	1.511		
	Total	461.981	209			

Source: Primary data.

and distributing resources, which much affect their functioning. Similar to this, the revenue collection systems ($F = 29.076$, $p < 0.001$) have a high variation, revealing that while some hospitals have these good systems, others have weaknesses that may lead to financial instability or inability of the hospitals in providing their services. However, there was a difference ($F = 11.340$; $p < 0.001$) observed in regular financial reports, which implies that hospitals tend to spread financial reports, which are crucial for transparency and accountability.

There were further significant differences in hospitals' capacity to invest in everyday medical equipment and infrastructure ($F = 14.993$, $p < 0.001$), with the variation in funding having a bearing on the degree to which healthcare service can be improved. Significantly different was the variability of available funds for ongoing projects and improvements ($F = 14.368$, $p < 0.001$), which also indicated the varying degrees of financial preparedness for sustaining development. Financial risks ($F = 25.162$, $p < 0.001$) were vastly different in their measures for mitigation. Some hospitals were more ready for future financial risks. In general terms, these findings suggest that financial management approaches are quite different and differ widely, and they all impact hospital efficiency, output of operational services, and delivery of services.

4.4.2. Analysis of Variance (ANOVA) of Workforce Competence

Table 8. The ANOVA results highlight that hospitals have significant differences

in workforce competence, which indicates variability in staff qualification, experience, and performance. More specifically, there was wide variation in the qualifications and skills of medical staff ($F = 8.619, p < 0.001$), suggesting that hospitals with better qualified staff provide better quality care. Access to continuing education and training programs for clinical staff ($F = 5.200, p = 0.001$) shows the lack of access to clinical staff development, which really shows that the hospitals that have this training program will have done to deliver updated and quality care. Furthermore, there are statistically significant differences in workforce communication with patients and families ($F = 6.704, p < 0.001$) and overall teamwork (sum of squares = 86.100), and work communication has significant impacts on patient satisfaction and care delivery.

Table 8. Workforce competence for hospitals.

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
The medical staff have the necessary qualifications and skills to provide high-quality care.	Between Groups	63.619	4	15.905	8.619	<0.001
	Within Groups	378.305	205	1.845		
	Total	441.924	209			
Continuous training and education programs are available for clinical staff.	Between Groups	32.116	4	8.029	5.200	0.001
	Within Groups	316.499	205	1.544		
	Total	348.614	209			
The hospital workforce demonstrates effective communication skills with patients and families.	Between Groups	35.515	4	8.879	6.704	<0.001
	Within Groups	271.480	205	1.324		
	Total	306.995	209			
There is good communication and teamwork among hospital staff.	Between Groups	86.100	4	21.525	15.998	<0.001
	Within Groups	275.824	205	1.345		
	Total	361.924	209			
The staff adheres to best practices and protocols for patient safety.	Between Groups	65.622	4	16.405	10.077	<0.001
	Within Groups	333.735	205	1.628		
	Total	399.357	209			

Source: Primary data.

In addition, the ANOVA analysis underlines that patient safety practices (ANOVA $F = 10.077, p < 0.001$) are highly correlated with patient safety, which means how close or distant the achievement of the safety standards is critical to patient care. It was also found that the nature of workforce competencies ($F = 15.653, p \leq 0.001$) was strongly related to care quality as a function of workforce training level. The implications of these findings for workforce competence in hospitals and patient outcomes are important. For that reason, the administrators should think of how to improve both financial management and the competence

of the hospital's workforce for sustainability and fill gaps in order to deliver high-quality care.

4.5. Conclusion of Hypothesis Testing

Given the ANOVA results across various aspects of healthcare management, including service delivery, financial management, and workforce competence, we can draw conclusions based on the significance (Sig.) values: Given the ANOVA results across various aspects of healthcare management, including service delivery, leadership, financial management, and workforce competence, we can draw conclusions based on the significance (Sig.) values:

1) Financial Management

All the p -values that have been obtained are less than the significance level of 0.05. At the p -value of 0.001 for most of the financial management factors apart from cost reduction strategies, where the test has a p -value of 0.290, we can infer that the financial management practices differ significantly between the two hospitals. The findings lead us to support the H_1 and fail to support the H_0 for most of the financial aspects except the cost saving, where we are unable to reject the H_0 .

2) Workforce Competence

Every component of the whole workforce competence is presented with p -values below 0.001, thus suggesting a relation to the level of workforce competence in the management of healthcare between different hospitals. Hence, we fail to support the null hypothesis (H_0), and we support the view in the alternative hypothesis (H_1) that workforce competence affects healthcare management.

Based on the findings of the present research from the ANOVA test, the null hypothesis (H_0) is rejected, while the alternative hypothesis (H_1) is accepted for most of the aspects of healthcare management. This entails the fact that healthcare management in terms of service delivery, financial management, and workforce competency between the different capacities of hospitals varies considerably.

4.6. Key Informants Interview

Benadir Hospital is dependent on numerous sources of finance, ranging from international donors, including WHO, UNICEF, and Qatar Charity; government assistance; and NGO donations. The funds are spent on departments like nutrition, neonatal care, and tuberculosis. Nevertheless, the donor funding at the hospital has been unstable, as in Begs Maternal's case, from which the hospital receives support had to cease support. To mitigate the lack of supply at the hospital, they introduced the fee collection system in August 2024. This has filled some resource gaps, but there are still gaps in the services offered. However, despite these efforts, the hospital is still unable to afford comprehensive service due to resource constraints.

Aden Abdulla Hospital, on the other hand, takes a private investor model; its sources of funds consist of shareholders and specialized doctors, and the payment

method is the fees of patients only. Insurance coverage also mean steady income stream for the hospital. The competition between the investors for winning the offer makes it a guarantee that Aden Abdulla Hospital gets ensured with a more reliable and timely supply of supplies and equipment. The institution's strategic location enables the provision of comprehensive healthcare services, encompassing specialized care, while avoiding the resource limitations characteristic of Benadir Hospital. The private model offers greater stability and service coverage but does less to serve patients who cannot afford the payment or do not have insurance.

5. Discussion and Conclusion

The results show large variations in resource allocation, revenue collection, financial reporting, funding adequacy, and financial risk management between Aden Abdulle Hospital and Benadir Hospital. Benadir Hospital has always outperformed Aden Abdulle Hospital with higher efficiency due to the advancement of technologies, skilled employees, and streamlining of the organization. The results are consistent with literature that underlines the significance of proper resource management, transparency in financial activities, and mitigation of risk in healthcare systems (Baltussen & Niessen, 2006; Chan et al., 2019). The moderate scores of Benadir Hospital identify inefficiencies in outdated systems and do not have well-formed stakeholder engagement mechanisms that may need to be targeted in order to bridge the performance gap.

Respondents expressed positive consensus as to the impact of financial management on healthcare delivery by suggesting that patient satisfaction is the highest endorsed and emergency response is slightly less consensual. Overall, these results concur with earlier research by Baltussen and Niessen (2006) and Chan et al. (2019) that effective financial management either creates a more qualified pool of human resources for the organization, improves resource allocation, and as a result, helps the organization optimize its use of resources, thereby reducing inefficiencies, and effective financial management enhances service quality, efficiency, and satisfaction. Shared perceptions in emergency response (lower standard deviations) are consistent responses, while gaps in emergency response (Blanchet et al., 2017) call for better financial preparedness in emergencies. Overall, this study contributes to existing literature associating robust financial management with improvement of healthcare delivery and sustainable financing, as also done by Tsani et al. (2021).

We compare Benadir Hospital and Aden Abdulle Hospital and identify major aspects of workers, their training, how they communicate with one another, and how they stick to patient safety protocols. To this day, Aden Abdulle Hospital far outperforms the Benadir Hospital in terms of performance since the staff qualifications are stronger, the continuous training programs are better, the communication skills are better, teamwork is better, and adherence to patient safety protocols commands stricter adherence than in the Benadir hospital. This agrees well

with previous studies, which highlight the importance of staff development, communication, and implementation of safety protocols as increasing factors that contribute to enhancing healthcare provision outcomes (WHO, 2022; Alkhenizan & Shaw, 2011). Although Aden Abdulle Hospital has good policies and training initiatives, Benadir Hospital has some scope in the implementation of training policies with improved teamwork. Filling these gaps would go a long way to improving the condition of Benadir Hospital care delivery as well as patient satisfaction (WHO, 2022). According to Abdi-Soojeede & Alasow (2023), a high percentage of risk factors for childbirth complications is “non-accessibility of near health services facilities,” which is also related to a lack of sufficient health workers. This further reinforces the disparities in health service access in the community.

From Table 6, hospital workforce competencies are perceived to be moderately positively related to different dimensions of healthcare service delivery, with the strongest impact on innovation and improvement (3.69, SD = 1.296) and the weakest on efficiency (3.47, SD = 1.356). The results provide support for previous work emphasizing the centrality of workforce competencies in driving healthcare innovation and improved healthcare outcomes (Baker et al., 2020). Other similar studies, for instance, those of Salas et al. (2018), indicated that although the competencies of a workforce have consequences for patient safety and satisfaction, their importance for operational efficiency depends on the effectiveness of training and the presence of resources. The moderate variability in participant responses also underscores diverse perceptions, which could stem from differences in institutional culture or resource constraints. These findings support the need for targeted interventions, including targeted training programs that target competencies of the workforce and improve service delivery in healthcare.

Different ANOVA results across areas of healthcare management, such as financial management and workforce competency, show important differences between the two hospitals. The p values for most factors are below the 0.05 significance level, except cost reduction strategies, for which the p value is 0.290, and the results do not prove any significant difference between hospitals. Most financial activity is therefore rejected from the null hypothesis (H_0) and accepted into the alternative hypothesis (H_1), implying that financial management practices differ greatly between hospitals. Likewise, p values below 0.001 also indicated that workforce competence is very significant between the hospitals and therefore support H_1 and reject H_0 . These results suggest that hospitals' capacity and management tasks, like service delivery, financial management, and workforce competence, vary markedly among institutions and indicate the importance of interventions adapted to facilitate healthcare management in distinct settings.

Benadir Hospital relies on various financial sources, including international donors and government support. However, it has faced challenges due to the instability of donor funding, such as the withdrawal of support from Begs Maternal. The hospital achieved two things: to address supply shortages in August 2024, it introduced a fee collection system, but this reduced some resource gaps and is

limited. Benadir Hospital moved to fee-for-service in September 2024 instead of giving services for free. On the other hand, Aden Abdulla Hospital is operated by a private investor model that is dependent on shareholders' funds, specialized doctors, patient fees, and insurance coverage. With this model, hospitals can provide better service without resource shortages, as Benadir Hospital experiences. Nevertheless, this model may be limiting for low-income patients who cannot afford the charges or who do not have insurance. Aden Abdulla Hospital's model provides a more consistent resource available, and Benadir Hospital relies far too much on donor funding for financial stability.

A comparative analysis of Aden Abdulle Hospital (a private hospital) and Benadir Hospital (a public hospital) exposes significant differences in indicators like resource allocation, revenue collection, financial reporting, funding adequacy, and financial risk management. Aden Abdulle Hospital reliably outperforms Benadir Hospital, qualified to its advanced technologies, skilled workforce, and efficient organizational processes.

Aden Abdulle Hospital is more well-off than Benadir Hospital in terms of financial management and resource allocation, as it has a wider scope of funding through shareholder contributions, patient fees, and even insurance reimbursements, thus ensuring a balance of funds and reinvesting into service delivery. The end of donor support, such as that from Begs Maternal, has worsened these challenges. Furthermore, public hospitals such as Benadir often face challenges in applying effective motivation schemes to promote and reward highly motivated staff, which can impact financial performance (Lucifora, 2023). In workforce competency and training, Aden Abdulle Hospital emphasizes continuous staff development, regular training programs, and effective communication among team members. This promise enhances adherence to patient safety protocols and general service quality. The performance of Benadir Hospital suffers from inadequate training policy implementation and inconsistent teamwork practices. Managerial performances at public sector hospitals show lower levels than private hospital operations, which reduce both staff competencies and hospital performance results (Lucifora, 2023). Public hospitals frequently have extensive management boards staffed with political occupants who have the power to influence executive decisions, but at times, these practices lead to inefficient administrative performance. Public hospitals face challenges in financial efficiency because of their current organizational style. The management structure at Aden Abdulle, along with other private hospitals, functions smoothly, which enables quick decision-making and swift adaptation to new conditions (Lucifora, 2023).

The first limitation was that the study focused on two hospitals, which may not represent the broader spectrum of public and private healthcare facilities. A larger sample size would enhance the generalizability of the findings. The second limitation was that variations in data reporting standards between hospitals may affect the comparability of financial and operational data. Limited access to detailed financial records could introduce reporting biases. Addressing these limitations in

future research could provide a more comprehensive understanding of the factors influencing performance differences between public and private hospitals, informing strategies to enhance healthcare delivery across various settings.

Conclusion: A comparison between Benadir Hospital and Aden Abdulla Hospital indicates differences in financial management, resource allocation, workforce competence, and service delivery. Despite having diversified financial sources, including international donors and government support, Benadir Hospital lacks resources, particularly in specialized services, and faces financial instability, even with its fee-for-service model. Aden Abdulla Hospital has more consistent resource availability and efficient service delivery compared with public hospitals, but at the expense of hampering access for poor patients since it works according to a model driven by private investors. These differences highlight the need for application-specific interventions addressing financial and operational inefficiencies, training workforce competencies, and the provision of accessible and quality health services in different hospital settings.

6. Recommendation

The case study in which Benadir Hospital has been compared to Aden Abdulla Hospital shows that the two differ with regard to financial sustainability, efficient use of resources, and professional human resources. Based on these findings, the following recommendations are made: Due to the formulations made in the three sections above, the following recommendations should be implemented: 1) Benadir Hospital should seek the support of private investors and pursue insurance programs with non-prolific, unpredictable donor funds. 2) The hospital should strive to enhance its specialized services; hence, it needs to buy specialized equipment and training. The following are the gaps between the two hospitals: 3) For the purpose of learning and communication, as well as the promotion of effective teamwork in the area of patient safety and service delivery, both hospitals need to support the development of their workforce development programs. 4) More effective financial risk management frameworks should be developed and implemented in both hospitals; they should engage emergency management plans that should embrace protective cost strategies for future sustainability and efficient operations. All the mentioned recommendations should be designed to enhance the efficiency of the overburdened and strained healthcare delivery system, fix fiscal instability, and tackle human capital shortages.

Acknowledgements

I want to thank Abdijalal for having made efforts at Benadir Hospital and Abdinur for his work at Aden Abdulle Hospital. I also want to express my gratitude to the students of the public health class at Hope University for their hard efforts and contributions. It is also my honor to thank all my co-workers and tutors who helped me during this project. The authors are grateful to President Prof. Najib and Academic Dean Prof. Abdirahman Mohamud Sh. Ahmed for their valuable

support. Ahmed: An intellectual level where respective leaders and visionaries are recognized. Also, I would like to take this opportunity to express my great appreciation to the registrar of Hope University, Prof. Hassan Elmi Kulle, for his constant encouragement.

Data Availability Statement

Primary research was used to gather the data on which this study, “Assessment of Financial and Workforce Impact on Health Service Delivery in Mogadishu, Somalia,” was based: questionnaires and interviews. Qualitative data, including survey responses and interview transcripts, have been anonymized and can be shared with the corresponding author upon request. Due to ethical considerations, privacy policy, and regulation by the institution, the raw data is restricted. It could be necessary that an agreement is signed so that the particulars shared will not be divulged and will be employed for ethical purposes only.

Conflicts of Interest

We declare there are no conflicts of interest regarding the publication of this paper.

References

- Abdi-Soojeede, M. I., & Alasow, M. D. (2023). Health Care Workers' Experiences on Child-birth Complications and their Risk Factors in Mogadishu, Somalia. *British Journal of Healthcare and Medical Research*, *10*, 155-167. <https://doi.org/10.14738/bjhm.105.15212>
- Ahmed, A., Nor, F., Ahmed, M., & Osman, M. (2023). Universal Health Coverage in Somalia: Charting the Path to Equitable Healthcare Financing and Governance. *Health*, *15*, 1298-1317. <https://doi.org/10.4236/health.2023.1511085>
- Alkhenizan, A., & Shaw, C. (2011). Impact of Accreditation on the Quality of Healthcare Services: A Systematic Review of the Literature. *Annals of Saudi Medicine*, *31*, 407-416. <https://doi.org/10.4103/0256-4947.83204>
- Baker, S. R., Bloom, N., Davis, S. J., & Terry, S. J. (2020). *Covid-Induced Economic Uncertainty* (No. W26983). National Bureau of Economic Research. <https://doi.org/10.3386/w26983>
- Baltussen, R., & Niessen, L. (2006). Priority Setting of Health Interventions: The Need for Multi-Criteria Decision Analysis. *Cost Effectiveness and Resource Allocation*, *4*, 1-9. <https://doi.org/10.2139/ssrn.943814>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*, 99-120. <https://doi.org/10.1177/014920639101700108>
- Blanchet, K., Ramesh, A., Frison, S., Warren, E., Hossain, M., Smith, J. et al. (2017). Evidence on Public Health Interventions in Humanitarian Crises. *The Lancet*, *390*, 2287-2296. [https://doi.org/10.1016/S0140-6736\(16\)30768-1](https://doi.org/10.1016/S0140-6736(16)30768-1)
- Chan, B. T., Veillard, J. H., Cowling, K., Klazinga, N. S., Brown, A. D., & Leatherman, S. (2019). Stewardship of Quality of Care in Health Systems: Core Functions, Common Pitfalls, and Potential Solutions. *Public Administration and Development*, *39*, 34-46. <https://doi.org/10.1002/pad.1835>
- Danish Immigration Service (DIS) (2020a). *Report on the Health System, Somalia*. https://www.nyidanmark.dk/-/media/Files/US/Landenotater/COI_report_somalia_health_care_nov_2020.pdf?la=en-

[GB&hash=3F6C5E28C30AF49C2A5183D32E1B68E3BA52E60C](https://doi.org/10.4236/vp.2025.111012)

- Danish Immigration Service (DIS) (2020b). *Somalia: Health Care Services in Mogadishu*. Center for Documentation and Counter Extremism.
<https://www.ecoi.net/en/file/local/2105661/medcoi-somalia-til-upload-ny-forside.pdf>
- Das, S., Grant, L., Fernandes, G., & Antonio, C. A. T. (2023). Task Shifting Healthcare Services in the Post-COVID World: A Scoping Review. *PLOS Global Public Health*, 3, e0001712. <https://doi.org/10.1101/2023.02.26.23286301>
- Gopichandran, V. (2022). Exploring Ethics in the Implementation of the Community Health Worker Programmes in India. *Indian Journal of Medical Ethics*, 7, 264-267.
<https://doi.org/10.20529/IJME.2022.077>
- Heritage Institute & City University of Mogadishu (2020). *Somalia's Healthcare System: A Baseline Study and Human Capital Development Strategy*. <https://heritageinstitute.org>
- Lucifora, C. (2023). Management Practices in Hospitals: A Public-Private Comparison. *PLOS ONE*, 18, e0282313. <https://doi.org/10.1371/journal.pone.0282313>
- Ministry of Health and Human Services, Federal Government of Somalia (2022). *Somalia Health Sector Strategic Plan (HSSP III) 2022-2026*. <https://andp.unescwa.org>
- MOH (2021). *Somalia Health Sector Strategic Plan 2022-2026 (HSSP III)*. Federal Government of Somalia.
<https://moh.gov.so/so/wp-content/uploads/2022/11/Health-Sector-Strategy-Plan-III.pdf>
- Mundeva, H., Snyder, J., Ngilangwa, D. P., & Mmbaga, E. J. (2018). Ethics of Task Shifting in the Health Workforce: Exploring the Role of Community Health Workers in HIV Service Delivery in Low- and Middle-Income Countries. *BMC Medical Ethics*, 19, Article No. 71. <https://doi.org/10.1186/s12910-018-0312-3>
- Rowe, A. K., Rowe, S. Y., Peters, D. H., Holloway, K. A., & Peters, T. J. (2018). Improving Health Worker Performance: An Ongoing Challenge for Health Systems in Developing Countries. *Human Resources for Health*, 16, Article No. 1.
<https://doi.org/10.1186/s12960-021-00683-z>
- Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The Science of Teamwork: Progress, Reflections, and the Road Ahead. *American Psychologist*, 73, 593-600.
<https://doi.org/10.1037/amp0000334>
- Tsani, S., Riza, E., Tsiamagka, P., & Nassi, M. (2021). Public Financing and Management for a Sustainable Healthcare Sector: Some Lessons from the Covid-19 Pandemic. In W. Leal Filho (Ed.), *COVID-19: Paving the Way for a More Sustainable World* (pp. 233-254). Springer International Publishing. https://doi.org/10.1007/978-3-030-69284-1_12
- Wang, X., Liu, Y., & Zhang, J. (2021). Referral Payments and Healthcare Delivery Efficiency: Analysis of Equilibrium Rates and Capacity. *Health Economics*, 30, 1035-1049.
- Warsame, A. A. (2020). *Somalia's Healthcare System: A Baseline Study & Human Capital Development Strategy*. The Heritage Institute for Policy Studies and City University of Mogadishu.
- WHO (2010). *Monitoring the Building Blocks of Health Systems: A Handbook of Indicators and Their Measurement Strategies*. WHO Document Production Services.
- World Health Organization (WHO) (2016). *Global Strategy on Human Resources for Health: Workforce 2030*. World Health Organization.
<https://iris.who.int/bitstream/handle/10665/250368/9789241511131-eng.pdf>
- World Health Organization (WHO) (2022). *Global Health Workforce Statistics, 2022 Update*. World Health Organization.
<https://www.who.int/data/gho/data/themes/topics/health-workforce>