

FINANCIAL PERFORMANCE OF COUNCIL DESIGNATED HOSPITALS (CDHS) AND VOLUNTEERING AGENCY HOSPITALS (VAHS) IN TANZANIA

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ABSTRACT

The primary objective of this paper is to analyze the financial performance of council designated hospitals (CDHs) and volunteering agency hospitals (VAHs) in Tanzania. Specifically, the study involves analysis of financial performance of the two categories of hospitals based on operating margin, growth rate in equity, current ratios, days cash on hand, equity financing and average age of plant during 2011/12 - 2014/15. Ratio analysis technique was employed in analyzing financial performance of the two categories. Data were extracted from respective hospitals' annual reports and collected using the stratified sampling procedure whereby Lake, Eastern, Western, Southern and Northern Zone were treated as stratum. The aim of using stratified sampling aimed at obtaining representation of the total population (90 faith based private hospitals) in the country. Result revealed that Hospitals in both categories have good liquidity position, evidenced by current ratios which is above the required benchmark of 2.0 times, as well as reasonably average days cash on hand (DCH) of at least 20 days. However, CDHs seems to outperform the VAHs in terms of liquidity over the sampled period. As far as the operating margin is concerned both categories were not performing well, since they all have negative or almost zero operating margin. Result on growth rate in equity indicates that both categories have zero or less than one percent growth in equity which is very marginal. Average age of plant was higher in VAHs category compared to their CDHs counterpart. Since both categories are not performing quite well in many aspects (such as profitability, equity financing, and growth rate in equity) the study recommends that administrators should ensure stability in liquidity. Good performance in liquidity and zero leverage make the hospitals safer (less risk) as far as solvency and financial condition is concerned.

Keywords: *Financial Performance, Council Designated Hospitals, Volunteering Agency Hospitals, Tanzania*

1. INTRODUCTION

Regardless of the nature of hospitals' ownership, health facilities in Tanzania are regulated and supervised by the Ministry of Health, Community Development, Gender, Elderly and Children. Private not for profit (PNFP), Private for profit (PFP) as well as publicly owned hospitals define the ownership structure of health facilities in Tanzania, and the three categories therefore are in the national health map. Majority of Private not for profit health facilities in the country are owned by faith-based organizations. Depending on the nature of contract signed with the government, faith based hospitals sometimes receive direct and indirect support from the government.

In Tanzania Private not for profit (PNFP) hospitals can be categorized into Voluntary Agency Hospitals (VAHs) and Council Designated Hospitals (CDHs). Voluntary Agencies Hospitals (VAHs) is the group in which all accredited faith-based hospitals fall while Designated Hospitals (CDHs) are VAHs officially designated to operate as councils or districts referral health facilities (PPP Guidelines, 2011). The CDHs are private not for profit hospitals which operate as council or district referral hospitals; on the other hand Volunteering Agency Hospitals (VAHs) are private not for profit hospitals which do not have contract to operate as the council or district referral hospitals. According to Christian Social Services Commission (CSSC) number of CDHs and VAHs in the country is 37 and 53 respectively. Both CDHs and VAHs are private not for profit (PNFP) hospitals in Tanzania and they fall under the same ownership structure.

Studies focusing on the hospitals' performance particularly efficiency and productivity in Tanzania have increased speedily over the recent years. For example Bwana (2015) assessed efficiency of faith based hospitals in Tanzania, in which Data envelopment analysis (DEA) model was applied in 15 Hospitals. In another study Bwana (2018(a)) investigated efficiency of private hospitals based on hospitals size; hospitals were classified into small, medium and large hospitals and then analyzed separately. However, due to challenges in accessing hospitals financial data, few studies have been conducted on hospitals financial performance in Tanzania. For example Bwana (2018(b)) examined impact of public private partnerships (PPPs) on the financial performance of Council Designated Hospitals (CDHs),

financial ratios were employed to analyze the performance before and after PPPs arrangements between the owners and government. Therefore this study is an extension of the previous work by Bwana (2018(b)) where financial ratios are adopted in the analysis of financial performance of both CDHs and VAHs. This study analyzes financial performance of the council designated hospitals (CDHs) and volunteering agency hospitals (VAHs). The rationale of conducting the study has been built on the fact that there is limited empirical evidence regarding hospitals' financial performance in Tanzania in terms of *liquidity, efficiency, leverage and profitability*. This study is built on the *Public Choice Theory*, which suggests that, if public sector monopolizes the provision of services, the result is oversupply and inefficiency (McMaster et al., 1996). Literatures contend that there is a close relationship between efficiency and financial performance. Palepu and Healy(2008) argued that a firm may generate a relative high profit by applying the efficiency management. If properly adopted Efficiency strategy enhance firms ability to produce the quality, high-volume product at the most competitive price, and also facilitate higher financial performance for firms especially if the firm is operating in a high competitive market (Aulakhet.al,2000). Based on *Public choice theory* we are motivated to analyze the financial performance of the hospitals in which the government has a stake in terms operation (CDHs) and hospitals which are fully operated by owners (VAHs).Therefore this study tries to bridge the existing gap in the literature where by efficiency and productivity analysis of the CDHs and VAHs has already been carried out while little is known about the financial performance of the two categories. General objective of this study is to analyze financial performance of Council Designated Hospitals (CDHs) and Volunteering Agency Hospitals (VAHs) in Tanzania, specifically the study aims at:

- i. Examining the performance of the two groups in terms of liquidity, profitability and assets management (efficiency)
- ii. Examining the financial position of the two categories in terms of Capitals Structure

Significance of this study stem from the fact that, most of previous studies on CDHs and VAHs performance in Tanzania have dealt with assessment of efficiency and productivity. None of them ever dealt with the assessment of financial performance of the two categories. The result from this study will shed light on the performance of two categories in terms of *profitability, liquidity, assets management performance as well as capital structure financial*. The remaining part of this paper include *section two* which comprises literature review, *section three* which involves techniques used in obtaining and analyzing the hospitals' data, *section four* includes findings and discussions in relation to result of previous similar studies. Conclusion and recommendations are presented in *section five*.

2. LITERATURE REVIEW

Hospitals financial performance analysis has progressed in the past twenty years, and special financial ratios reflecting the unique characteristics of the hospitals industry have been developed and employed in the performance analysis (Cleverly and Nilsen 1980; Zeller et al., 1996). Financial ratios analysis is an accepted approach to hospitals performance evaluation. Hospital administrators, governing boards, and public policy groups utilize financial ratios to benchmark the financial health of a hospitals or group of hospitals (Glandon et al., 1987). Cleverley,(1993) reported 34 hospitals (industry specific) financial ratios classified into profitability, liquidity, capital structure, assets efficiency and other financial measures. This study assumes hospitals are homogeneous with respect to environmental variables exogenous to the study, such as demographic and professional personnel shifts; changes in demand; utilization; wage rates and other resources; cost as well as general state of economy. We followed Pink et al (2007) and use special hospitals financial ratios to assess the financial performance of hospitals under the study (CDHs and VAHs).

Literature shows that the use of the ratios analysis in analyzing the financial performance in the hospitals industry has been increasing. Especially where there is no clear model that can be employed or no enough data to satisfy the required model (Pink et al, 2007). There are several financial dimensions when measuring hospitals financial performance using financial ratios, and the most common dimensions are *profitability, capitals structure, activity of efficiency and liquidity*. Hospitals' financial ratio express the relation between two or more selected numerical values picked from a hospital's financial statements. In most cases financial ratios are applied in assessing the overall financial health or performance of a firm, the ratios may be applied by internal or external users depending on the motive and kind of the information the user want to extract. For example, financial analyst employs financial ratios to evaluate and compare the strengths and weaknesses in different companies or the same company in different two or more periods. Ratios can be presented using decimal value, for example 0.10, or expressed in percentage value, 10% value. In most cases ratios which are more than one are expressed in decimal (for example price/earnings ratios) on the other hand ratios which are less than one are normally expressed in percentage (for example earning yield). Values included in the computations

of financial ratios can be selected from statement of financial position, statement of financial performance or sometimes statement of change in equity.

Empirical studies on the analysis of hospitals financial performance using special financial ratios indicated that ratios have been adopted in both developed and developing countries. For example, using financial ratio analysis Bhat and Jain (2006) conducted a study on financial performance of private hospitals in India and one of the ratios used was the average age of plant and the result revealed that average age of plant of private hospitals in India was increasing between the year 1999 and 2004 . In another study Zeller et al (1996) contended that day's cash on hand (DCH) is one of the important liquidity ratios in measuring hospitals financial performance. They argued that DCH helps the hospitals managers to control the hospitals expenditures particularly if the cash on hand is getting low. In the study conducted by Kane Consulting Group (2008) using financial ratio analysis on 23 acute care not-profit hospitals in New Hampshire, it was found that the New Hampshire acute care hospitals' days cash on hand were higher than national or regional medians. Another element of hospitals financial ratio is average age of plant, the ratio measure how old a hospitals' fixed assets are. It based on the assumption that hospitals are using the straight line depreciation method. It is the hospitals plant that are used to generate revenue, therefore too old assets implies low ability of the hospital to generate revenue. Consequently, low profitability and to what extent the replacement fund will be required in the near future. In the study by Kane Consulting Group (2008) indicate that the median age of plant for New Hampshire is younger than the Northeast and National medians.

This study also follows Watkins (2000); Zeller et al., (1996) and Pink et al., (2007) and applies financial ratios computed from the audited financial statement to scrutinize financial health of the hospitals under the study. In a study by Pink et al., (2007) in which financial ratio analysis technique was used, it was found that community hospitals were experiencing negative total margin while teaching hospitals and small hospitals manifested small positive margin (operating margin). Using financial ratio analysis equity ratios was measured in a study by Zeller et al., (1996) result indicates that equity financing and fixed assets financing are strongly correlated ranging between 0.63 to 0.75, implying that low values of equity financing indicates more debt included in the capital structure, while low values for fixed assets financing lead to less debt. In the study by Kane Consulting Group (2008) using ratio analysis it was found that all Critical Access Hospital (CAH) of New Hampshire Hospitals falls within the benchmark of inter-quartile range of equity financing, and those hospitals tend to increase their proportion of equity financing. In another study by Pink et al., (2009) on financial performance of US Critical Access Hospitals (CAHs), it was found that on average 40% of hospitals under the study (421 hospitals) meet the benchmark of equity financing.

Given the fact that review of literature indicates that less attention had been paid to the financial performance of CDHs and VAHs in Tanzania, this study employs ratio analysis and tries to bridge the gap by measuring hospitals' profitability using operating margin ratio; liquidity using current ratio and days cash on hand (DCHs); leverage using growth rate in equity and equity ratio; efficiency using average age of plant. Zeller et al. (1996); Chu et al (1991) proposed the profitability as the characteristics of hospitals financial performance. Operating margin is applied as the measure of the control of expense relative to revenue (Pink et al., 2007)

3. METHODOLOGY

3.1 Data and Data Sources

Data employed in this study were extracted from respective hospitals' annual reports and collected based on stratified sampling procedure. The data set comprises panel data (2011/12 – 2014/2015) whereby the same hospitals in each group are traced for five years.

According to Christian Social Services Commission (CSSC), faith based hospitals in Tanzania are mapped into five zones, that is *Eastern, Western, Northern, Southern and Lake Zone*. In this case zones were treated as stratum from which the data for VAHs and CDHs were drawn. The aim of using stratified sampling was to get representation of the total population (90 private not for profit hospitals) in the country; the method is also suitable for the study which focuses on specific issues. Hospitals included in the study were 17 from CDHs category and 17 from VAHs. Names of VAHs category; were Bukumbi, Iambi, Igongwe, Ilembula, Lugalawa, Lutembo, Marangu, Mbesa Mission. Others were Mbozi Mission, Mkula, Ndolage, Nkinga, Nkoaranga, ST.Benedict, Uhai Baptis, St. Corneleous and St. Raphael Hospitals. On the other hand, CDHs included in this study were Biharamulo, Bunda, Huruma, Kilema, Rubya hospitals. Others are Sengerema, Sikonge, Sumve and Muheza hospital. Others CDHs include Ilula, Makiungu, Mbalizi Evangelism, Peramio hospitals. Others were Tosamaganga, Turiani, Mvumi, and ST. Gema hospitals.

3.2 Data Analysis Technique

This study employs ratio analysis, financial ratios measure several aspects of a firm and they are integral part of the financial statement analysis. Generally, financial ratios can be categorized according to the aspect of the firm to be measured. For example *Liquidity ratios* evaluate the liquidity position of the firm or availability of cash to pay short term liability. In this study ratios that measure hospitals' liquidity include *current ratio* and *days' cash on hand*. *Efficiency or Activity ratio* (sometimes also known as turnover ratio) represents group of ratios that measure the extent to which the firm converts or change non-cash assets to cash assets, in this study hospitals' efficiency is measured using average age of plant. *Equity ratios* are group of ratios that assess the firm's ability to finance its assets using equity (internal sources of financing) while the *Profitability ratios* examine the firm's use of assets and control of its operating expenses to generate an acceptable rate of return, in this study hospitals profitability is measured using operating margin.

Financial ratios are very useful and suitable for comparisons *between companies; between industries; different time periods for one company or between a single company and its industry average*. In assessing hospitals financial performance, ratio analysis is one of suitable and efficient methods of examining hospital's financial health. Through ratio analysis user of financial can establish the important relationship between numerical values in financial statement and convert financial details to a meaningful performance standards. However, financial ratios generally are not fruitful unless they are *benchmarked* against something else, like past performance or another company. Thus, the financial ratios of firms in different industries, which face different risks, capital requirements, and competition, are usually hard to compare. Literature contends that there are specific ratios which are much meaningful when applied in specific sector (i.e ratios used in measuring financial performance in hospitals sector). Therefore this paper employs specific hospitals ratios to examine the financial performance of CDHs and VAHs hospitals under the study. Ratio analysis is suitable for comparison of the performance of two groups of hospitals, we therefore, examine the financial performance of VAHs and CDHs over the period of four years (2011/12 - 2014/15). Types, meaning and implications of the ratios employed are as follows:

- *Operating margin (OM)* -the ratio of operating profit to net sales, usually presented in presented in percentage. Operating margin ratio Measures whether the particular hospital is profitable or not, it also implies the hospitals' ability to cover the operating expenses with operating revenues.

$$OM \approx \frac{\text{Total Revenue} - (\text{Operating Expenses} + \text{Tax paid})}{\text{Total revenue}} * 100$$

- *Growth rate in equity (GRE)*- it is the ratio that measures the amount of additional equity being added to the equity provided by stockholders. This ratio measures the increase in the value of equity after the end of each financial year. The hospital will experience increase or growth in equity if it generates the surplus. An increase in stockholders equity growth rate over several time indicate a good sign as more percentage of equity being held in stockholders' equity. On the other hand a decrease of the same may indicate that the company is taking in fewer net earnings or is giving out more stock dividend.

$$GRE \approx \frac{\text{Change in fund Balance}}{\text{Fund Balance}}$$

- *Current ratio (CR)*—it is the ratio that reflect liquidity position of the hospitals, in other words larger current assets in relation to small amount of current liabilities gives assurance the maturing financial obligations will be paid. It is the ratio of current assets to current liabilities. Implies access to the unrestricted cash which is used or employed in the financing of the short-term needs, it measures ability to meet short term lender requirements

$$CR \approx \frac{\text{Current assets}}{\text{Current liabilities}}$$

- *Days cash on hand (DCH)* - it is the ratio that measure liquidity, it shows the number of days an organization can continue to finance its activities even if new cash are not coming in. In other words if reflect how many days the hospitals could continue to operate if no additional cash were collected from clients (in this case patients). If the DCH is too high it may have bad impact since the cash is not allocated to areas of business

activities to generate high returns, on the other hand low DCH is risk to the hospitals since it cannot operate for long time without collecting new cash.

$$DCH \approx \frac{\text{Cash} + \text{Marketable securities}}{\text{Operating Expenses} - \text{Depreciation} * \frac{1}{365}}$$

- *Equity financing ratios (EFR)*- is the ratio that indicates the proportion of the equity that is applied to finance the assets of the hospitals. Sometimes is sometimes referred as net worth to total assets. The ratio also shows inclusion of equity in the total capital structure of hospitals in other words the part of capital structure that is equity. Measure the ability of the hospitals to finance its assets using internal sources of financing

$$EFR \approx \frac{\text{Fund Balance}}{\text{Total Assets}} * 100$$

- *Average age of plant (AAP)* - Measure the relative age of fixed assets and technology used in provision of hospitals services. The median value for the average age of plant provides indications on the replacement cost to be incurred in the near future, It also signify the hospital's ability to generate revenue (obtained through examining the accumulated depreciation and gross fixed assets to net fixed assets). As the assets become used and get older it shows the capital expenditure in the near future (capital expenditure required replacing the existing asset), on the other hand when the assets are younger it implies the hospitals ability to generate revenue

$$AAP \approx \frac{\text{Accumulated depreciation}}{\text{Depreciation Expenses}}$$

4. FINDINGS AND DISCUSSION

This section presents result of the study; **Table 1** summarizes the median-financial performance indicators of Council Designated Hospitals (CDHs) in terms of *operating margin, growth rate in equity, current ratio, days' cash on hand, equity finance and average age of plant* while **Table 2** presents result for Volunteering Agency Hospitals (VAHs) on the same

Table 1: Median–Financial Performance Ratio for CDHs 2011/12 – 2014/15

Performance indicators	2011/2012	2012/2013	2013/2014	2014/2015
Operating margin (%)	-0.109082	-0.050969	-0.001785	-0.468977
Growth rate in equity (%)	0.026615.	-0.327327	1.154752	0
Current ratios	1.852557	0.472149	3.423267	5.353724
Days cash on hand	110.021789	117.999899	120.665655	123.059452
Equity financing (%)	-4.384568	-14.717859	-4.119960	-4.936417
Average age of plant	8.633151	12.7611203	8.713363	11.827273

Source: Research Findings, 2015

The financial ratios used in the analysis of both categories are specific financial ratios that have been employed in the previous hospitals' studies. These ratios (ref: *Table 1 and Table 2*) include *Operating Margin, Growth Rate In Equity, Current Ratios, Days Cash on Hand, Equity Financing, Average Age of Plant*.

Operating margin

Result (*Table 1 & 2*) indicates that *operating margin* of both group of hospitals (VAHs and CDHs) was not healthy. Both group experienced the low ability to generate profit since they all have negative operating margin. Therefore on average faith-based hospitals (both CDHs and VAHs) in Tanzania manifested relative low level or negative financial viability over the sampled period of five years. For example CDHs had operating margin ranging between -0.1090% and -0.468977% in the year 2011/12 and 2014/15 respectively, on the other hand operating margin of VAHs was ranging between -3.9% and -1.46% in the year 2011/12 and 2014/15 respectively. The findings report that probably both VAHs and CDHs are not careful in cost control management (expenses control over revenue). Generally, surplus generation is very important to ensure that the hospital remains sustainable in the long run, it also attract the resources

as the means of performance evaluation. According to Pink et al (2005) the a hospital should be considered to have good a financial performance if it has the operating margin ranging between 0% and 5%, therefore in this case both CDHs and VAHs are considered to have been performing poorly with regards to operating margin given the proposed benchmark by Pink et al (2005).

Liquidity

Results revealed that as far as current ratios is concerned, hospitals under scrutiny (both CDHs and VAHs) exhibited good performance in terms of liquidity position, since most of them have the current ratios of more than 2.0 over the study period (Ref : Table 1& 2).Moreover, the current ratio in CDHs category was increasing over the sampled period from 1.8 in 2011/12 to 5.3 in 2014/15(Table1) on the other hand, the current ratio of VAHs was stable above bench mark of 2 during the entire period of analysis (Table 2). Although CDHs experienced current ratio of less than 2.0 in the year 2011/12 and 2012/13 but for the subsequent years it continues to grow up to 5.3 times in the year 2014/15 . the possible cause of a sharp decrease in liquidity of the in the year 2012/2013 can either be increase in current liability or sudden decline in cash or other current assets that which can be used to cover the current liability in that particular year. According to Pink et al. (2005) 2005 the desired benchmark was established that the hospital is considered to have a good liquidity position if it has the current ration of at least 2.0. This means that both CDHs and VAHs have the higher current ratio since the hospitals under scrutiny depicted average current ratio of above 2.0 (benchmark).

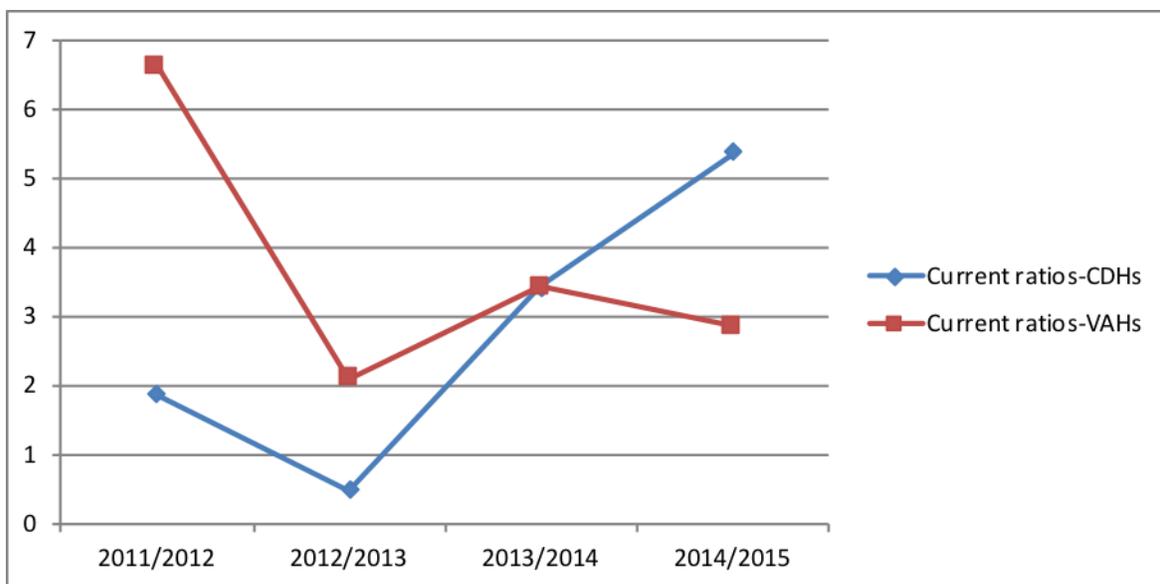


Figure 1: Trend of Liquidity of CDHs and VAHs using Current Ratio 2011/12-2012/15

As far as *day's cash on hand* is concerned, result revealed that day's cash on hand in both categories (CDHs and VAHs) was more than 60 days. This implies that on average private not for profit(PNFP) hospitals in Tanzania can operate for sixty days without depending on collection from their operating activities. Days cash on hand for CDHs were ranging from 110 days to 123 days in the year 2011/12 and 2014/15 respectively. While that of the VAHs were 84 days to 60 days in the same period. In both categories (CDHs and VAHs) day's cash on hand were showing the ability of the hospitals to adjust or accommodate changes in case there is a need to do that. Though both CDHs and VAHs were performing above the propose benchmark, CDHs were performing relatively better (in terms of liquidity) compared to their VAHs counterparts. Days cash on hand also implies that the higher the days cash on hand the lesser the risk of becoming insolvent and higher the room for hospitals adjustment. In the study conducted by Pink et al., (2009) it was established that Days cash hand of 60 days should be used as the appropriate benchmark. Therefore in this study all hospitals from both categories (CDHs and VAHs) manifested the day's cash on hand of above 60 days which implies high (liquidity) ability of hospitals to meet short term financial obligations. The conclusion with this regard is in line with McCue and Nayar (2009) who contended that, not for profit hospitals may have high liquidity but not cash flows to access tax exempt debt market to fund future capital expenditure.

Table 2: Median–Financial Performance Ratios for VAHs 2011/12 – 2014/15

Performance indicators	2011/2012	2012/2013	2013/2014	2014/2015
Operating margin (%)	-3.980712	-1.45481	-1.264843	-1.468977
Growth rate in equity (%)	-0.132363	0.002789	-0.077689	0.383678
Current ratios	6.604267	2.098809	3.423267	2.832436
Days cash on hand	83.72614	80.106989	98.316455	60.022252
Equity financing (%)	-5.384387	-6.317465	-7.324270	-5.936989
Average age of plant	4.633151	9.7611203	8.513363	11.825988

Source: Research Findings, 2015

In the first two years (2011/12 & 2012/13) CDHs experienced current ratio below the proposed bench mark and above bench mark in the subsequent years. When compared to VAHs both *current ratio and days cash on hand* was decreasing though was still above the proposed bench mark of 2 and 60 days respectively. Therefore CDHs were experiencing high growth in liquidity than their VAHs counterparts.

Equity finance

This ratio gauges the ability of the hospitals to finance its assets using the equity financing (internal sources of financing). As the percent of equity financing become less it reflects the extent to which the hospitals depend on the external source of financing (debt financing). It is appropriate indicator of the level of leverage used by hospitals (www.wikipedia.org/wiki/equity_ratio). Generally, higher equity financing is healthier, although most financially healthy hospitals should have some debt for working capital as the way to minimize overall cost of capital (Kane Consulting Group, 2008). According to Consulting Group (2008) the appropriate range of equity finance is between 40% and 70%. Findings shows that most of CDHs and VAHs in this study have equity financing of less than the proposed bench mark, which implies that ability of these hospitals to finance their assets from internal sources was very questionable over the sampled period. Therefore, result implies that not for profit hospitals (CDHs and VAHs) in Tanzania are less capable of financing their assets using equity. Therefore in totality the equity financing in Tanzania faith based hospitals is still low compared to findings in previous similar studies.

Growth rate in Equity

This measure the increase in the value of equity after the end of each financial year, the hospital will experience increase or growth in equity if it generates the surplus, obviously since these faith based hospitals in Tanzania experienced the negative or very insignificant operating margin it means there is (nothing or) insignificant amount to be added back to allow growth in equity. Our findings reveled that hospitals in CDHs and VAHs categories have growth in equity of less than two percent and in some years it is even negative. For example CDHs category in year 2012/13 had -0.3%, On the other hand the VAHs had negative equity growth rate of -0.132% and -0.077%; in the year 2011/12 and 2013/2014 respectively. Therefore, there was a slight improvement in VAHs (from -0.132% in 2011/2012 to 0.38% in 2014/2015) compared to CDHs whose growth rate in equity declined from 0.02% in 2011/2012 to 0 in 2014/2015.

Average age of plant

It is the financial measurement indicating how old a hospital fixed assets are. It premises on the assumption that hospitals use the straight line depreciation methodology. The median value for the average age of plant provides indications on the replacement cost required for the assets in the near future, It also signify the hospital's ability to generate revenue (it is obtained through examining the accumulated depreciation and gross fixed assets to net fixed assets). Results of our study revealed that average age of plant was lower in VAHs category (particularly before 2012/13) compared to their counterpart CDHs category, in other words increase in the age of plant VAHs was relatively higher (138%) compared to the increase in the age of CDHs (41%) over the sampled period, this also implies that, plants owned by CDHs were relatively younger than those owned by the VAHs. This study also revealed that, over the study period VAHs have the median value for average age of plant from 4.6 years in 2009/10 to 11.82 years in 2012/13, meanwhile the CDHs category have 8 years in 2009/10 to 11.34 years in 2012/13. Implying that the VAHs category in the year 2012/13 had plant or assets which could not generate revenue compare to their counterpart CDHs due to the age of the plant or assets.

Therefore, average age of plant of CDHs seems to be younger than that of the VAHs, in the study by McCue and Nayar (2009) it was contended that when non-profit hospitals possess old plants and equipments it implies in the future it may

affect their ability to operate. McCue and Nayar (2009) added that non-profit are not good in controlling their cost (cost control). Generally, our result supports the findings by McCue and Nayar (2009) in the sense that since VAHs and CDHs under the scrutiny have less capacity of equity financing and they maintain very old assets or plants the faith-based hospitals subject themselves into financial hardship during the replacement of plant or assets, which may lead to further usage of very old plant or assets which affect their ability to generate revenue as well as increasing equity financing capability. Generally, the two categories of hospitals (VAHs and CDHs) are likely to face the assets replacements (expected to incur capital expenditures in the near future) as both are maintaining relatively old assets. However, CDHs maintain relatively older assets as compared to VAHs counterparts.

5. CONCLUSION AND RECOMMENDATIONS

The study aimed at examining financial performance of CDHs and VAHs using specific financial ratios. Hospitals in both categories seem to have good liquidity position, evidenced by current ratios which is above the required benchmark of 2.0 times, as well as reasonably average days cash on hand (DCH) of at least 20 days. The finding is supporting the existing argument in the hospitals' financial management that, not for profit hospitals are good at maintaining high liquidity and cash flow but are facing low profitability and difficulties in accessing the external funds. As far as operating margin of is concerned over the same sampled period the *operating margin* of both group (VAHs and CDHs) was not financially healthy. Both groups experienced the low ability to generate profit since they all have negative and some almost zero operating margin. Result also revealed that hospitals in both categories (CDHs and VAHs) have growth in equity of zero and less than zero and sometimes less than one percent which is relatively small. The result also revealed that average age of plant was higher in CDHs category compared to their counterpart VAHs category; this also implies that, plants owned by VAHs were relatively younger than those owned by the CDHs.

Therefore too aged hospitals' plants and assets lead to low ability to generate revenue, and low profitability which influences low growth rate in equity financing of faith-based hospitals. The basic descriptive analysis that compares CDHs and VAHs, support findings from ratios analysis where VAHs seems to have high growth rate in average age of a plants compared to their CDHs counterparts. Therefore, from the fact that most of the not-for-profit hospitals (VAHs and CDHs) have less access to external funds such as debt financing (apart from donors funds and grant from the government), both CDHs and VAHs hospitals continue to depend on the government grants and donors funds or sometimes constrained themselves to maintain high level of cash to support assets/plants replacements when they get obsolete.

Conclusively, the financial performance of the VAHs and CDHs in Tanzania in terms of liquidity is good. However, liquidity position of CDHs was increasing while that of VAHs experienced a slight decline over the study period. This gives the idea that, though not for profit hospitals in Tanzania are not performing good in terms of other financial aspects (such as profitability, equity financing, growth rate in equity) performance in liquidity and zero leverage make the hospitals safer (less prone to financial risky) as far as solvency and financial condition is concerned.

Since VAHs and CDHs are less pressured to focus on profit, and in many cases they deal with less profitable services to serve community (especially where /public health facilities are inadequate), the government should continue supporting these hospitals in assets acquisition and replacements as most of them serve the community on behalf of the government and they have negative or very small margin which lead to no/very little growth in equity which could have been reinvested in the acquisition of the assets and hospitals plants. It is also recommended that since both VAHs and CDHs are well known for having low access to external financing the government has the role to make follow up on long term financial stability of the two categories by monitoring the capital structures, as indulging in long-term borrowing may lead to financial insolvency of the hospitals and threatens the existence of the CDHs and VAHs, hence affect the healthcare delivery in the country. Hospitals administrators (in CDHs and VAHs) should also revisit cost structures in their respective hospitals as poor performance in the operating margin may be partly attributed by poor control of expenditures against revenue.

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