

Journal of Finance and Accounting



ISSN Online: 2616-4965



Relationship between Cash Management and Financial Performance of Private Hospitals in Nairobi County, Kenya

Esther Njoki Wanjuki, Dr. Thomas Githui & Mr. John Omurwa

ISSN: 2616-4965

Relationship between Cash Management and Financial Performance of Private Hospitals in Nairobi County, Kenya

*¹Esther Njoki Wanjuki, ²Dr. Thomas Githui & ³Mr. John Omurwa

¹Master's Student, School of Business, The Catholic University of Eastern Africa

²Lecturer, The Catholic University of Eastern Africa

³Lecturer, The Catholic University of Eastern Africa

*E-mail of Corresponding Author: esthernwanjuki@gmail.com

How to cite this article: Wanjuki, E.N, Githui, T. & Omurwa, J. (2021), Relationship between Cash Management and Financial Performance of Private Hospitals in Nairobi County, Kenya, *Journal of Finance and Accounting*. Vol 5 (2) pp.128-146. <https://doi.org/10.53819/81018102t40010>

Abstract

The general objective of this study was to investigate the relationship between cash management and financial performance of private hospitals in Nairobi County, Kenya. This study adopted a descriptive design. The target population for this study was 25 private hospitals in Nairobi County. The study collected primary data from the respondents. The data collected was quantitative and was analyzed through Statistical Package for Social Sciences (SPSSV18.0). Both descriptive and inferential analysis were conducted by the study. The findings indicated that cash conversion cycle and cash budgeting had a positive and significant effect on financial performance of private hospitals. However, cash banking and cash flow forecasting didn't significantly improve financial performance. Given that cash management practices were found to enhance the financial performance of private hospitals, this study therefore recommends for continuous embracement of these practices (cash budgeting, cash banking, cash conversion cycle and cash flow forecasting) by private hospitals. To ensure efficient management of cash, clear guidelines and policies should be developed based on the hospital needs to guide the employees in doing the same. To monitor cash flows, private hospitals should adopt automated cash management technology to aid in maintaining healthy cash flow position. Investment in cash management technology will also improve the accuracy and efficiency of cash management and allows the staff to focus on development and innovation. The study recommends future studies to focus on recent hospital directory. The study focused on private hospitals within the Nairobi County, a more comprehensive study should include other counties.

Keywords: *Cash Budgeting, Cash Banking, Cash Conversion Cycle, Cash Flow Forecasting, Financial Performance, Private Hospitals*

<https://doi.org/10.53819/81018102t40010>

1.1 Background of the Study

Cash management is imperative in every business, given that cash drives other activities. It refers to full exploitation of the liquid cash available, deriving maximum interest from the extra funds as well as reducing any holdups in transmission of funds (Waltson & Head, 2007). Furthermore, it was described by Zimmerer et al. (2008) as the process of projecting, mobilizing and allocating cash for smooth company operations. Since cash is the most significant asset a small business has, it is also imperative that it be handled prudently.

Without adequate capital, a business will be bankrupt and unable to fulfill its short-term commitments. This is partially since mutually creditors as well as lenders demand on-time payments, which is unlikely if a company has insufficient cash. Pandey (2005) acknowledges that an appropriate sum is available to allow an organization to achieve its goals. The Chartered Institute of Management Accountant (CIMA, 2002) reinforces this, recording that cash management is crucial because it can otherwise be defined as any company's bloodline. Given its significance, Ross et al. (2011) argued that to arrive at an optimal number, it is necessary for any company to track its cash flow overtime. If a firm faces cash crux, the availability of efficient cash management methods will result in successful businesses (Atrill, 2006).

This cross-examination is based on the Free-Cash Flow Theory postulated by Jensen (1986), Gitman's Cash Conversion Theory (1974) and the Baumol model method suggested by Baumol (1952) in its study. The first theory suggests caution when it comes to spending extra funds in non-profit organizations and ventures as it will increase shareholder costs; on the other hand, the Cash Conversion Cycle argued that there is a need for a short cash conversion cycle between the purchasing of raw materials and the selling of the goods, while Baumol Model viewed cash management as well as inventory management dilemma arguing that transactions requiring financing need to be balanced.

Cash Management is a broad term referring to cash collection, concentration and disbursement of cash for the purpose of running business operations. The ultimate goal of cash management to is manage cash surplus or balances of an enterprise to maximize availability of cash not invested in property plant and equipment or stock to avoid risk of insolvency (Tarus & Juma, 2017). Cash management assumes more significance and is considered as most important asset an organization holds in comparative to other current assets (Amijee, 2015). Cash management among health facilities in Kenya is crucial for the smooth quality of healthcare delivery. The industry has faced more than one problem contributing to unfavorable health effects since the devolution of this vital service. An analysis of the management of cash among these important facilities is critical. Private healthcare in Kenya contributed 2.9 per cent of 4.7 per cent of healthcare spending in 2012. The sector contributes 22 per cent of all healthcare services (Kenya National Health Accounts 2009/2010).

If healthcare quality in both public and private hospitals in Kenya continues to deteriorate, the number of Kenyans pursuing out-of-country medical services is set to increase further the contribution of the health sector to Kenya's GDP. Private health facilities, which are beyond government regulation, have stepped up their programs to fill the holes that cannot be filled by public facilities (Kamilu, 2004). This category consists mostly of organizational, private, charitable or group-owned facilities aimed at making money and at the same time providing critical healthcare services, but the issue remains. Private health facilities, which are outside the control

of government, have stepped up their services to fill the gaps which the public facilities are no able to (Kamilu, 2004). This category comprises majorly of organizational, individual, charity or group owned facilities which aim to make profits while at the same time offering the essential healthcare services, However, the shortage of sufficient and quality healthcare facilities remains a matter of concern (Kamilu, 2004). Attom (2014) showed the importance of cash management in maintaining the delivery of these quality services.

Although Abioro (2013) indicated that cash management ensures smooth operating flow, Lienert (2009) added that cash availability, accurate cash forecasting as well as smooth cash flow when required, Funds availability also reduces borrowing costs which lead to sustainable financial results. Moyer, Maguigan and Kretlow (2011) and Ondiek, Deya and Busaka (2013) further revealed that cash management is critical in ensuring a substantial reduction of the cash shortage problem. The need for cash management, based on a claim by Kesseven (2016), has been intensified in the modern era by the increasing demands of business relative to the past. According to Lienert (2009), cash management in the modern era is aimed at checking cash availability, borrowing when there is need, as well as optimizing the returns on available cash. Kane and Magnus (2011) illustrated weak cash management practices in the United States healthcare sector, whereby FA was inefficient and badly drafted with missing data. Equally, Wheeler et al. (2010) suggested that cash management activities were also lacking in quality among the healthcare units facilitated by Not-For-Profit (NFP) organizations, as most of them invested in long-term ventures leading to short-term cash shortages.

The private sector market is enormous and plays an important role in the improvement of the health of the people in most parts of the world. They make sure they have the very best doctors to provide the services as they are required. In addition, the sector has invested in appropriate infrastructure and medical equipment to complement their services. Almost 70 percent of the private sector has ownership of the doctors on the market and individuals are limited as only those who can afford the private fees. They are in a position to reach the facilities. With most hospitals located in Nairobi, the hospital concentration is primarily in urban areas (Kioi, Cowden, & Karodia, 2015).

The private health sector includes Private-Not-For-Profit (PNFP), Private Health Providers (PHP), Faith Based Organizations (FBO) and Traditional and Complementary Medicine Providers (TCMP) (Muthoka, 2017). There is need to strengthen collaboration in this sector through development of a Public Private Partnership in Health (PPPH) policy framework; establishment of appropriate legislative frameworks and guidelines to facilitate and regulate the private sector in line with existing laws and regulations; and work with the private sector to reform incentive mechanisms (e.g. fiscal) that would attract registered private health practitioners to the under-served and difficult to reach areas (Nyambura, 2016).

The health sector like any other sector in Kenya has experienced hard times in the last decade or so. This is mainly due to hard economic times facing the country and other forces such as change in technology, liberalization, expectation of patients, rising levels of poverty and poor infrastructure (Muthoka, 2017). All these changes have made it hard and very expensive to deliver health care in the country. However, over the last two decades, the private health sector has expanded rapidly. Possible factors leading to its rise include: the lack of appropriate and quality public health care services; the implementation of public facility usage fees; In the 1980s and 1990s, health sector reforms relaxed the licensing and supervision of private providers of health care and allowed public sector workers to work in private practice (Muthaka, 2004). Increases in

<https://doi.org/10.53819/81018102t40010>

health facilities operated by the private sector are one measure of growth (Boore, James& Iraki, 2017).

The government of Kenya has acknowledged the importance of health sector and has therefore developed policies, strategic plans and strategies to grow it. The policies seek to achieve improved standard of healthcare, reduce the role of the ministry in delivering this service and encourage more public-private partnerships (PPPs). This private sector has produced enormous growth in subsequent decades. In the public domain and in government circles, there is a general consensus that this sector also provides vital services. The government has therefore launched efforts to collaborate with the private sector through PPPs with a view to achieving quality healthcare.

1.2 Statement of the Problem

Cash management is an important practice for any organization. This is because lack of or availability of ineffective cash management practices would lead to challenges in execution of budgets and poor timing of cash inflows which ultimately result to temporary cash scarcity. In as much as it is important to have effective cash management practices, scholars have demonstrated evidence of cash related issues among businesses (Attom, 2014; Lienert, 2013). Hospitals have experienced inadequate cash management practices leading to poor service delivery and regular strikes as well as insufficient drug stocks, equipment and basic consumables for operation in the hospitals as a result of poor cash management (R.A Muthama, 2016).

Locally, the issue of cash management in the private healthcare sector is critical given the need to deliver quality and affordable healthcare. Given the recent challenges in the healthcare sector in Kenya, such as workers strikes owing to poor remuneration, provision of low-quality services due to lack of crucial medical supplies as well as erratic supplies, triggers a relook on whether this is related to the cash management practices of these organizations. This is because of the previous studies conception that effective cash management ensures smooth organizational performance and enhanced financial performance.

The study is also motivated by existence of contextual and conceptual research gaps on previous interrogations on cash management. Previous studies such as Lobel (2013) on cash management practices and firm performance, Hamza, Mutala and Antwi (2015) on cash management practices and financial performance in Ghanaian firms, Njeru et al. (2015) on cash management practices and financial performance of SACCOs, and Kamau (2014) on internal determinants of financial performance of private hospitals in Kenya have indicated research gaps. By context, some have focused outside Kenya while by concept, the studies have not necessarily focused on similar cash management practices and financial performance of private hospitals in Kenya.

1.3 Objective of the Study

The objective of the study was to develop a relationship between cash management and the financial performance of private hospitals in Nairobi County.

1.4 Research Questions

- i. How does cash budgeting affect financial performance of private hospitals in Kenya?
- ii. To what extent does cash banking affect financial performance of private hospitals in Kenya?
- iii. Does cash conversion cycle affect financial performance of private hospitals in Kenya?
- iv. How does cash flow forecasting affect financial performance of private hospitals in Kenya?

<https://doi.org/10.53819/81018102t40010>

1.5 Research Hypotheses

H₀₁: There is no statistical significant relationship between cash budgeting and financial performance of private hospitals in Kenya.

H₀₂: There is no statistical significant relationship between cash banking and financial performance of private hospitals in Kenya.

H₀₃: There is no statistical significant relationship between cash conversion cycle and financial performance of private hospitals in Kenya.

H₀₄: There is no statistical significant relationship between cash flow forecasting and financial performance of private hospitals in Kenya.

1.6 Conceptual Framework

In this study, a conceptual framework has been established to indicate the link between cash management practices and financial performance of private health facilities in Kenya as shown in Figure 1.

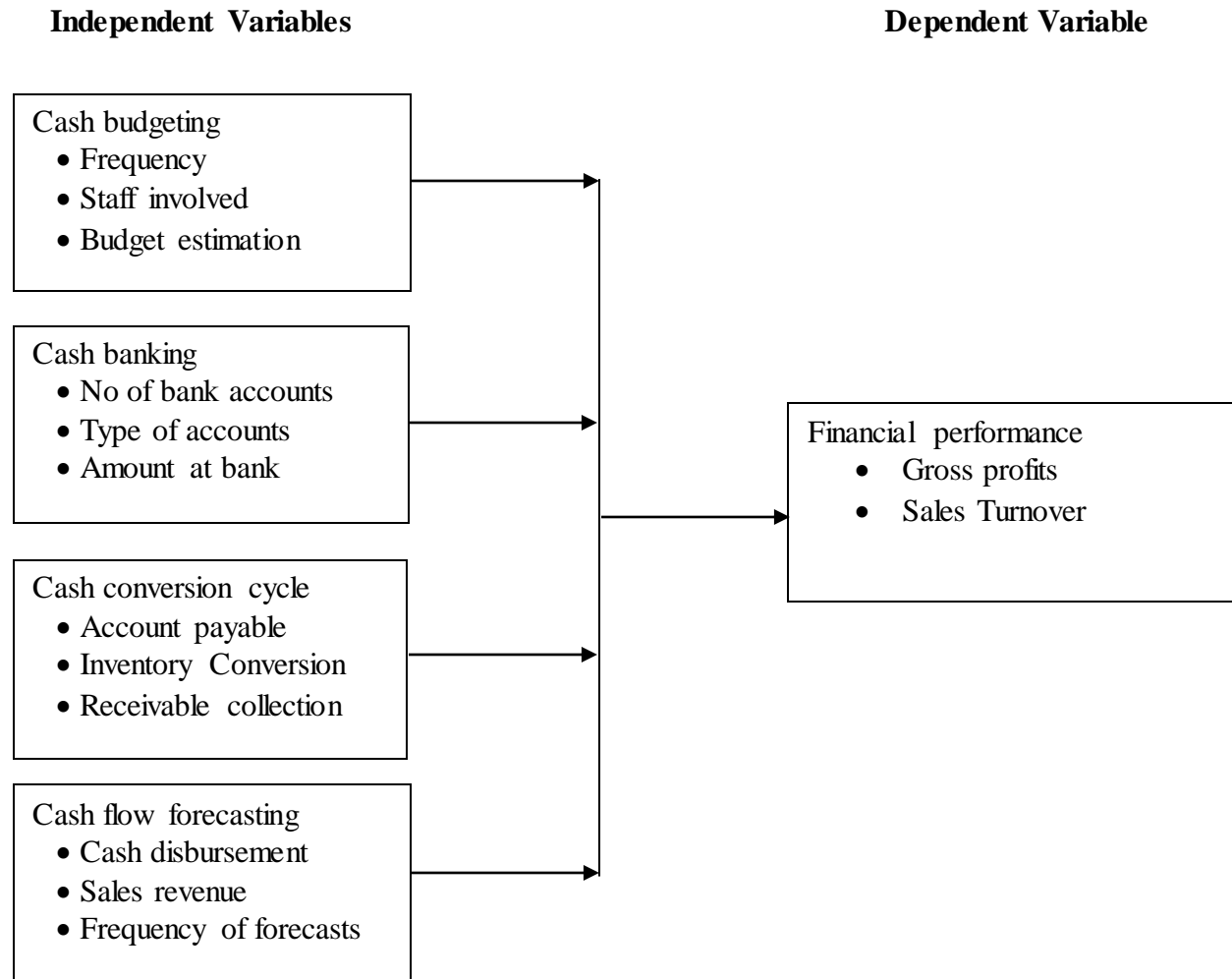


Figure 1: Conceptual Framework

Source: Researcher, 2018

2.1 Theoretical Literature

2.1.1 Cash Management theory

The hypothesis, advocated by Brigham et al (1999), aims to create an optimal amount of cash that is compatible with the nature of company. The model provides a cash management approach to economic order whereby fees and expenses such as forgotten interests are expected to be well handled to boost cash returns. An optimal cash sum can be realized through the model (Baumol, 1952; Erkki, 2004; Ross, 2010).

Lockyer (2003) subsequently modified the Baumol model to include overdraft facilities and document the overall cost of using such facilities. However, this was questioned by Erkki (2004), who clarified that the author believed that such facilities existed. Erkki (2004) added that cash is required for both transactional and speculative purposes to be held in a cyclical nature. Baumol model was later adjusted by Lockyer (2003) to include overdraft facilities documenting the overall costs of using such facilities. This was however critiqued by Erkki (2004) who elaborated that the author assumed existence of such facilities. Erkki (2004) added that there is a need for cyclical nature of cash whereby cash is kept for both transactional and speculative purposes. On the contrary, Gibbs clarified that by integrating both investment and financial decisions and not just the transactional and speculative aspects, optimal cash can be generated. Holding money as a buffer is seen as an investment decision, according to him. There is nevertheless a need for caution because of the cost of holding money (Erkki, 2004).

2.1.2 Free Cash Flow theory

The theory proposes caution in regard to investment of extra funds into non-profit making entities and projects since it would raise shareholders costs. According to the theory, managers should act on behalf of the shareholders with an aim of maximizing their wealth. As such, they are supposed to invest surplus cash in profit making businesses; however, the reverse is true sometimes in cases where the managers pursue their interest (Eisenhardt, 1989). These agency problems are mostly geared by cash holding.

Huseyin (2011) asserted that sometimes, managers assume control of a company through transferring cash into assets which they can control. With cash, some managers would rather invest in low return investments that would solidify their control of the company than invest in profit making businesses. It is common sense that firms operating in environments characterized by low opportunities for investment should hold more cash than investing in investments that can yield low returns that would destroy the shareholders' value.

2.1.3 Cash Conversion Cycle Theory

The theory propagated by Gitman (1974), predicts that CCC and financial performance are positively related. CCC allows a business to recognize the amount of cash needed. This duration represents the time interval between the purchase of raw materials and the selling of finished goods. With the proper review of its CCC, a business is in a position to know the required changes needed to significantly impact its performance.

A shorter CCC period demonstrates that a business has less to operate with. It has few resources which can significantly influence performance. A longer CCC implies that sales growth is high which can imply better returns and financial performance. However, this claim is contradictory,

since Akinsulire (2003) argued that this period should be as short as possible in order to generate extra value.

2.2 Empirical Literature

Several studies have challenged the connection linking cash management and performance in diverse contexts. Andy and Johnson (2010) established whether cash management would have an effect on the output of US agricultural and insurance firms. Survey and quantitative approaches have shown that cash management is a major contributor to firm productivity. This study was done on agriculture, insurance and construction sectors other than private hospitals.

Chikashi (2013) explored the effect of cash flow and firm performance of the electric appliances industry of the Tokyo Stock Exchange. The observations divulged a negative significant relationship between cash flows and firm performance. A further study by Thanh and Nguyen (2013) examined the effect of banking relationship on firm performance in Vietnam. The study pointed out that cash flow has negative relationship with firms, return on equity, while assets had a negative association with return on assets. Finally, Ali et al. (2013) examined the association between diverse earnings and cash flow measures of firm performance and stock returns in Iran. The findings revealed a significant and negative effect between cash flow and company's performance; moreover, earning based measures were more correlated to stock returns and symbolize the company performance better than cash flow measures in some companies with superior accruals. This studies focused on diverse sectors other than private hospitals.

In a related focus, Nguyen (2011) documented advanced cash management practices such as budgeting among high performing firms. Correspondingly, a study by Abioro (2013), although focusing on manufacturing firms in Nigeria, also found evidence that a shorter Cash Conversion Cycle (CCC) was associated with improved performance. However, this study was done on manufacturing firms and not private hospitals.

Similarly, a study by Uwalomwa (2013) among insurance firms in Nigeria between the year 2006 and 2011 used secondary data and panel modelling to provide support of a positive significant correlation linking the variables. The study similarly differed in context from this study since it was done on insurance firms but the current study is based on private hospitals.

Other studies have documented significance of cash predicting as cash management variable. An examination by Okwena, Onkioma and Onsongo (2011) revealed practices such as forecasting of cash demand in future as critical in enhancing financial stability and performance. The same was supported by Hutchison (2017). In the case of an emerging economy like Uganda, related results were elaborated in a study by Godwin (2013) which assessed the link among cash management and profitability of banks. It was shown that profitability was high among those banks that had enacted cash management practices to curb fraud. Even considering small and medium enterprises in the same Ugandan context, Festus (2011) provided evidence that poor cash management practices led to customer dissatisfaction which adversely affected performance.

In a different context of India, divergent results were established in a study conducted by Bosra (2013) among insurance firms between the year 2005 and 2010. Through a linear regression model, it was determined that there was no evidence to ascertain that cash management influenced financial performance. The context of the study likewise differs from that of this focus. Contracting results, to that of Abioro (2013), were found in a study by Akinyomi (2014) which still focusing on manufacturing firms, elaborated that CCC led to a non-significant negative effect on ROA.

<https://doi.org/10.53819/81018102t40010>

Locally, a study by Maritim (2013), even though conducted in a different sector, indicated that availability of budgeting practices such as planning, participation and sophistication resulted in greater revenue. Contradicting results were however reported in a study by Muthiani(2011) which focused on CCC and listed firm's performance in Kenya through correlation analysis. The outcome revealed that CCC negatively influenced financial performance of these firms. The study however involved listed firms other than private hospitals. A corresponding study by Waihenya (2013), though based on all firms other than specifically private hospitals, provided evidence that CCC had no significant effect on financial performance.

Another local study was conducted by Maranga (2011) focusing on WCM and financial performance of listed firms at NSE and showed contradicting results. It suggested that the CCC greatly increased the financial performance of the firms. A related study by Mose (2016) analyzed cash management practices among insurance firms and found that good cash management practices improved transparency and therefore improved financial performance. However, it focused on insurance providers that are distinct from the existing study that focuses on private hospitals.

3.1 Research Methodology

The study is based on a descriptive research design. This design is relevant in that descriptive research seeks to establish the relationship between variables. In this study, the correlation linking cash management and financial performance of private hospitals will be established. The study targeted the 25 private hospitals in Nairobi County. The study also targeted the heads or those in charge of finance, accounting and audit for each of the 25 hospitals. The reason behind this choice was that they are involved in financial, accounting and audit practices of the hospitals. In this study, the population being small, a census was conducted on the entire set. In total, 75 respondents were targeted. The data collected was cross-sectional which is data collected by observing various subjects at the same point in time. A cross sectional data is analyzed by comparing the differences within the subjects. The design of the questionnaire comprised of five sections, that is, one for demographic information about the respondents and the remaining sections for the study objectives. The questionnaire had a letter of introduction to ensure that the respondents knew the details of the research and the use of the data provided. Quantitative data obtained has been analyzed using mutually descriptive and inferential statistics. Descriptive statistics included frequencies, percentages, mean and standard deviations. Multiple regression research was used in inferential statistics. Multiple regression was also conducted using the following model;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

Whereby: Y = Financial performance of Private Hospitals

X₁ = Cash budgeting

X₂ = Cash banking

X₃ = Cash Conversion Cycle

X₄ = Cash Flow Forecasting

β₀ = Constant

β₁, β₂, β₃, β₄ =Regression coefficients.

ε = Error Term

Statistics were created by the use of SPSS, a statistical program that can handle a large amount of data that saves time.

4.1 Findings and Discussion

A total of 75 respondents from the finance, accounting and audit departments were targeted. Therefore, an equal number of questionnaires were distributed to the hospitals. Out of the target number of 75, only 58 questionnaires were well responded to which gave a response rate of 78%. Regarding general information, the study found that 34.1 per cent of respondents said they were 36 to 45 years, 26.1% were in the range of 25 to 35 years, 25% indicated 46 to 55 years, 11.4% ranged between 56 to 65 years 3.4% of the respondents were above 66 years. The findings indicated representativeness in age distribution. It was also ascertained that majority of the respondents (44.3%) had a Bachelor's degree, 19.3% had a Diploma or masters 10.2% had postgraduate degree while 6.8% had a certificate. This is an indication that majority of the employees in the finance department of private hospitals have a first degree. In regards to work experience, it was demonstrated that 34.1 percent of respondents served in hospital for 11-15 years, 29.5 percent of respondents indicated more than 15 years, and 26.1 percent indicated between 6-10 years, while 10.2 percent indicated between 1-5 years. The results suggested that the respondents had a high degree of work experience to provide reliable information.

Concerning the period which the hospital been in existence, the results showed that 35.2% of respondents reported that the hospital had been in service for more than 20 years, 29.5% of respondents reported 16-20 years, 25.0% of respondents reported 5-10 years, while 10.2% of respondents reported less than 5 years. This means that most of Nairobi's private hospitals have been in service for a significant period of time, suggesting that this study obtained quality data based on long-term patient experience and operational experience.

4.2 Descriptive Statistics

Cash Budgeting

The study interrogated whether the hospitals investigated prepared cash budgets. All the respondents agreed that their respective hospitals prepared cash budgets. The respondents further indicated the frequency of budgeting. The results showed that a half the respondents indicated that the hospital prepared annual cash budgets, 34.1% indicated that their hospital prepared cash budgets after every 6 months while 15.9% indicated that their hospital prepared cash budgets on quarterly basis. This implies that most of the private hospitals in Nairobi prepared budgets either on annual or semi-annual basis. In addition, the study interrogated the extent to which internal staff expertise prepare budgets. The results demonstrated that 48.9 percent of the respondents agreed that their hospitals included internal workers to a large extent. On the contrary, 30 percent indicated involvement of internal staff in budgeting to a very large extent. This demonstrated involvement of the internal staff in budget making to a large extent among the hospitals.

The respondents further rated statements on cash budgeting on a Likert scale. The results indicated an agreement that cash budgeting ensures effective management of cash which enhances financial performance of my hospital to a high extent (Mean = 4.02; SD = 0.96), my firm has a cash budget (Mean = 4.03 ; SD = 0.94), the cash budget in my hospital is well implemented (Mean = 3.93 ; SD = 1.92), my firm makes periodical cash budget estimations (Mean = 4.00; SD = 0.99), cash budgeting promotes high revenue growth in private hospitals, formal budgetary control leads to

<https://doi.org/10.53819/81018102t40010>

improved financial performance (Mean = 4.16 ; SD = 0.74), the cash budgeting process in my firm is complicated (Mean = 4.09 ; SD = 0.63) as well as my firm budgets for capital expenditure (Mean = 4.10 ; SD = 0.74). On average, there was an agreement that the private hospitals implemented cash budgeting to a high extent (Mean = 4.10; SD = 0.74).

Cash Banking

The study interrogated whether the hospitals operated bank accounts. It was agreed that all the private hospitals have bank accounts. On the reasons why they had the accounts, majority of the respondents documented the need for accessing loan from financial institutions as shown by 73.9%, in order to separate business money from personal money as shown by 79.5%. Others indicated that the purpose of observing the business growth and investment in extra activities (80.7%), facilitation of debt collection (85%) and payment to suppliers (75%). It can thus be agreed that the reasons for maintain bank accounts by private hospitals vary. The respondents further rated statements on cash banking on a Likert scale. The results indicated an agreement that cash banking enhances financial performance of the firm to a high extent (Mean = 4.22; SD = 0.59), my hospital operates various bank accounts (Mean = 4.21; SD = 0.64), my hospital maintains a current account (Mean = 4.21; SD = 0.67), my hospital operates a savings account (Mean = 4.26; SD = 0.58) and also both current and savings account (Mean = 4.14; SD = 0.69). On average, there was an agreement that the hospitals have implemented various cans banking practices such as operating various accounts like savings, current and both (Mean = 4.21; SD = 0.63).

Cash Conversion Cycle

The respondents were asked to indicate whether cash conversion cycle affects their hospital's financial results. All the respondents felt that it does affect their hospitals. They were further asked to rate the extent to which various CCC practices affected their financial performance and the results demonstrated an agreement that the receivable collection period affects the financial performance of hospitals to a high extent (Mean = 4.20; SD = 0.55), the accounts payable period affects the financial performance of hospitals to a high extent. (Mean = 4.16; SD = 0.60) as well as inventory conversion period (Mean = 4.07; SD = 0.62).

The respondents also rated statements on cash conversion cycle on a Likert scale. The results indicated an agreement that the hospitals have a short account payable period (Mean = 4.03; SD = 0.72), pays trade credit liabilities rate (Mean = 4.19; SD = 0.71), if the number of days of account payable are reduced then the financial performance increases (Mean = 4.02; SD = 0.58), extending the payables deferral period damages the company's credit reputation which in turn influences financial performance (Mean = 4.14; SD = 0.76), shortening the inventory conversion period increases stock out costs of inventory (Mean = 4.07; SD = 0.72)and re-order time affects the financial performance of the hospital (Mean = 4.14; SD = 0.66). Generally, there was an agreement that private hospitals implement CCC practices to a high extent (Mean = 4.10; SD = 0.69).

Cash Flow Forecasting

The study established whether the hospitals carry out cash flow forecast. All the respondents agreed that indeed their hospitals do. The respondents then rated statements on cash conversion cycle on a Likert scale. The results indicated an agreement that the private hospitals maintain a detailed forecast of cash receipts (Mean = 4.19; SD = 0.66), keeps forecast on cash disbursements (Mean = 4.14; SD = 0.61), keeps monthly forecast of sales revenues (Mean = 4.05; SD = 0.66), keeps a weekly forecast of sales revenues (Mean = 4.24; SD = 0.71) as well as keeps daily forecast

of sales revenues (Mean = 4.07; SD = 0.70). On average it was agreed that the hospitals have adopted cash flow forecasting practices to a high extent (Mean = 4.14; SD = 0.67).

Financial Performance

The respondents were asked to indicate the range of financial performance (gross profits and sales turnover) for the last 3 years. The results indicated that the number of private hospitals recording less than Kshs. 500 M in gross profits remained constant at 25.9% between 2017 and 2019. Those recording between Kshs. 500 M and Kshs 1Billion decreased from 34.5% in the year 2017 to 25.9% in the year 2019. However, there was an increase in the private hospitals recording more than Kshs 1Billion gross profits from 39.7% in the year 2017 to 48.3% in the year 2019. In regard to sales turnover, the results in Table 4.12 indicated that the number of private hospitals recording less than Kshs. 500 M in sales turnover decreased from 25.9% in the year 2017 to 12.1 % in the year 2019. However, there was an increase in the private hospitals recording more than Kshs 1Billion sales turnover from 31% in the year 2017 to 36.2% in the year 2019.

4.3 Correlation Analysis

A correlation analysis was conducted to establish the association between the study variables. The results in Table 1 indicates that cash budgeting is positively and significantly associated with financial performance of private hospitals in Kenya ($r = 0.796$; $\text{Sig} < 0.05$). This implies that increasing cash budgeting practices leads to a significant improvement in financial performance of the private hospitals. The results also demonstrated that cash banking is positively and significantly associated with financial performance of private hospitals in Kenya ($r = 0.715$; $\text{Sig} < 0.05$). This implies that increasing cash banking practices leads to a significant improvement in financial performance of the private hospitals.

It was also showed that CCC is positively and significantly associated with financial performance of private hospitals in Kenya ($r = 0.801$; $\text{Sig} < 0.05$). This implies that increasing CCC practices leads to a significant improvement in financial performance of the private hospitals. In addition, it was established that cashflow forecasting is positively and significantly associated with financial performance of private hospitals in Kenya ($r = 0.715$; $\text{Sig} < 0.05$). This implies that increasing cashflow forecasting practices leads to a significant improvement in financial performance of the private hospitals. Correlation analysis results are presented in Table 1.

Table 1: Correlation Analysis

		Cash Budgeting	Cash Banking	CCC	Cashflow Forecasting	Financial Performance
Cash Budgeting	Pearson Correlation	1				
	Sig. (2-tailed)					
Cash Banking	Pearson Correlation	.821**	1			
	Sig. (2-tailed)	0.000				
CCC	Pearson Correlation	.794**	.753**	1		
	Sig. (2-tailed)	0.000	0.000			
Cashflow Forecasting	Pearson Correlation	.666**	.561**	.790**	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
Financial Performance	Pearson Correlation	.796**	.715**	.801**	.715**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	58	58	58	58	58

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

4.4 Regression Analysis

A multiple regression model was used to show the relationship between the variables. The model summary is presented in the Table 2 indicate that Cash flow forecasting, Cash banking, Cash Budgeting and CCC explain up to 72.5 percent of variations in financial performance of private hospitals in Kenya. The remaining percentage can be explained by other factors not considered in this study. Table 2 shows model summary results.

Table 2: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.851	0.725	0.704	0.2125

Predictors: (Constant), Cash flow forecasting, Cash banking, Cash Budgeting, CCC

The ANOVA results showed that the regression model connecting Cashflow forecasting, Cash banking, Cash Budgeting and Cash Conversion Cycle to financial performance of private hospitals in Kenya was a good fit since F statistic was significant ($0.000 < 0.05$). Any further generalizations based on the model makes sense. The ANOVA results are presented in Table 3.

Table 3: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.305	4	1.576	34.893	.000
Residual	2.394	53	0.045		
Total	8.699	57			

Dependent Variable: Financial Performance
 Predictors: (Constant), Cash-flow forecasting, Cash banking, Cash Budgeting, CCC

The effect of each of the predictor variables on Financial Performance was established and presented in Table 4. These results were used to test the research hypotheses.

Table 4: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	-0.552	0.311		-1.772	0.082
Cash Budgeting	0.229	0.092	0.361	2.484	0.016
Cash Banking	0.077	0.116	0.088	0.659	0.512
CCC	0.228	0.098	0.300	2.327	0.036
Cash-flow Forecasting	0.148	0.094	0.188	1.571	0.122

Dependent Variable: Financial Performance

The findings indicated that cash budgeting has a positive and significant effect on financial performance of private hospitals in Kenya ($B = 0.229$; $Sig < 0.05$). This implies that increasing cash budgeting practices by one unit leads to a significant improvement in financial performance of the private hospitals by 0.229 units. The findings also indicated that CCC has a positive and significant effect on financial performance of private hospitals in Kenya ($B = 0.228$; $Sig < 0.05$). This implies that increasing CCC practices by one unit leads to a significant improvement in financial performance of the private hospitals by 0.228 units.

The effect of cash banking on financial performance of private hospitals in Kenya was established to be positive but not significant ($B = 0.077$; $Sig > 0.05$). This implies that even though cash banking has a positive effect on financial performance, the same is not significant. Similarly, the effect of cashflow forecasting on financial performance of private hospitals in Kenya was established to be positive but not significant ($B = 0.148$; $Sig > 0.05$). This implies that even though cash flow forecasting has a positive effect on financial performance, the same is not significant. Table 5 provides a summary of hypotheses testing.

Table 5: Summary of Hypotheses Testing

Hypothesis	P-Value	Decision	Conclusion
H ₀₁ : There is no statistically significant relationship between cash budgeting and financial performance of private hospitals in Kenya.	P-Value = 0.016 < 0.05	Reject null hypothesis	Cash budgeting has a positive and significant effect on financial performance of private hospitals in Kenya.
H ₀₂ : There is no statistically significant relationship between cash banking and financial performance of private hospitals in Kenya.	P-Value = 0.512 > 0.05	Do not reject null hypothesis	Cash banking has a positive but not significant effect on financial performance of private hospitals in Kenya.
H ₀₃ : There is no statistically significant relationship between cash conversion cycle and financial performance of private hospitals in Kenya.	P-Value = 0.036 < 0.05	Reject null hypothesis	CCC has a positive and significant effect on financial performance of private hospitals in Kenya.
H ₀₄ : There is no statistically significant relationship between cash flow forecasting and financial performance of private hospitals in Kenya.	P-Value = 0.122 > 0.05	Do not reject null hypothesis	Cash flow forecasting has a positive but not significant effect on financial performance of private hospitals in Kenya.

5.0 Conclusions

Based on the findings, this study concludes a significant positive relationship between implementation of cash budgeting and financial performance of private hospitals in Kenya. Further, the study concludes a positive but not significant relationship between implementation of cash banking and financial performance of private hospitals in Kenya. That is, private hospitals operated banks accounts for several reasons, which include; facilitating accessing loan from financial institutions, in order to separate business money from personal money, for the purpose of monitoring the growth of the business and investment in other activities. In addition, to facilitate debt collection and payment to suppliers.

The study concludes a significant positive relationship between implementation of cash conversion cycle and financial performance of private hospitals in Kenya. In other words, reductions in both account receivable (measured as days of sales outstanding) and reductions in inventory (measured as days of inventory outstanding) associate with positive improvements in hospitals' financial performance. Another conclusion is that cash flow forecasting significantly improves financial performance.

6.0 Recommendations

Given that cash management practices were found to enhance the financial performance of private hospitals, this study therefore recommends for continuous embracement of these practices (cash budgeting, cash banking, cash conversion cycle and cash flow forecasting) by private hospitals. To ensure efficient management of cash, clear guidelines and policies should be developed based on the hospital needs to guide the employees in doing the same. Hospitals ought to also invest in cash management technology. This will improve the accuracy and efficiency of cash management and allows the staff and management to focus on development and innovation. For this study, 2016 hospital directory was used to draw the population and sample size. The study recommends future studies to focus on recent hospital directory.

REFERENCES

- Abioro, M. (2013). The impact of cash management on the performance of manufacturing companies in Nigeria. *Uncertain Supply Chain Management*, (1), 177–192.
- Akinyomi, O. J. (2014). Effect of cash management on firm profitability of Nigerian manufacturing firms. *International Journal of Marketing and Technology*,4(1), 129-140.
- Ali M, Alireza, A and Jalal, .A. (2013). The association between various Earnings and cashflow measures of firm performance and stock returns: some Iranian evidence. *International journal of accounting and financial reporting.*, 3(1), 24-39.
- Aliet, N. 2012. *Cash management and profitability of corporate firms. A case study: MTN Uganda Ltd* (BA). Bishop Stuart University, Kampala, Uganda.
- Andy, S., & Johnson, H. N. (2010). Effect of Cash Management on the Financial Performance of the firms in the United States of America: The Empirical Evidence. *Journal of Finance*, 42-124-157.
- Archer, S. (1966). A model for determination for firms Cash Balances. *Journal of Finance and Quantitative Analysis*, 3(1), 1-11.
- Atrill, P. (2006). *Financial Management for Decision Makers*. London: Pearson Education Ltd.
- Atrill, P. (2016). *Financial Management for Decision Makers*. New York: Prentice Hall.
- Attom, E.B. (2014). Cash Management Practices By Micro And Small-Scale Enterprises At Kasoa In The Central Region Of Ghana. *Asian Journal of Business and Management Sciences*, 3(2), 1-12.
- Baumol, W. J. (1952). The Transactions Demand for Cash: An Inventory Theoretic Approach. *Quarterly Journal of Economics*, 3(5), 545-556.
- Boore, C., James, N. M., & Iraki, X. N. (2017). Strategic issues in e-Health implementation in developing countries: The Kenyan healthcare sector. *Global Scientific Journals*, 5(7), 50-62.
- Bosra, K. N. (2013). Relationship between Cash Management and Financial Performance of Insurance Companies in India. The Empirical Evidence. *Journal of Finance*, 10, 24 – 56.
- Brigham, E.F., Gapenski, & L.C., Ehrhardt, M.C. (1999). *Financial Management: Theory and Practice* (19th ed.). Japan. The Dryden Press.
- Chartered Institute of Management Accountants (2002). *Risk Management: A Guide to Good Practice*. London: CIMA Publishing.

- Chikashi, T O. (2013). An Investigation of comprehensive income and firm performance: The case of the electric appliances Industry of the Tokyo Stock Exchange. *Journal of Accounting and finance research*, 2(2), 29-35.
- Erkki, K., (2004). *Cash Management Behavior of Firms and its Structural Change in an Emerging Money Market*. Faculty of Economics and Business Administration, Department of Accounting and Finance, University of Oulu.
- Festus, A. (2011). *Cash Management and growth of small scale business in Ntungamo Market* (Doctoral dissertation). Makerere University, Kampala.
- Gitman, & L. J. (2009). Principles of Managerial finance (12th ed.). *Journal of accounting and economics*, 401-508.
- Gitman, L. J. (1974). Estimating corporate liquidity requirements: a simplified approach. *The Financial Review*, 9(1),79-88.
- Godwin, R. (2011). Investigation on cash management on the Profitability. *International Journal of Economics, Commerce and Management*, 3(4), 2121-38.
- Hamza, K., Mutala, Z., &Antwi, S. K. (2015). Cash Management Practices and Financial Performance of Small and Medium Enterprises (SMEs) In the Northern Region of Ghana. *International Journal of Economics, Commerce and Management*, 3(7), 456-480.
- Huseyin, Y., (2011) Another Perspective to Corporate Cash Management: A New Model and Definition. *International Journal of Humanities and Social Science*, 1(11), 234-47.
- Hutchison, P. D., Farris, M. T., & Anders, S. B. (2017). Cash-to-cash analysis and management. *The CPA Journal*, 77(8), 42-47.
- Kamau, S. M. (2014). Effect of internal factors on the profitability of private hospitals in Kenya: A case study of the Karen Hospital Limited. *International Journal of Social Sciences and Entrepreneurship*, 1 (13), 127-147.
- Kane, N. & Magnus, S.A. (2011). The Medicare Cost Report and the limits of hospital accountability: Improving financial accounting data. *J Health Polit Policy Law*, 26(1), 81-105. Kenya. *Unpublished MBA Thesis of the University of Nairobi*.
- Kesseven, P. (2016). Trends in working capital management and its impact on firms' performance. *International Review of Business Research Papers*, 2(2),45-58.
- Lienert, I. (2009). *Modernizing Cash Management*. Fiscal Affairs Department: International Monetary Fund.
- Lobel, B. (2013). *Small businesses still struggling with cash flow management*. Retrieved from <http://www.smallbusiness.co.uk/news/outlook/2351828>.

<https://doi.org/10.53819/81018102t40010>

- Lockyer, K.G. (2003). Cash as an Item of Stock. *Journal of Business and Finance*, 1(5), 44-51.
- Maranga, B. E. (2011). *Relationship between working capital management and financial performance of the companies listed at the Nairobi Securities Exchange in Kenya* (MSC Thesis). University of Nairobi, Nairobi, Kenya.
- Maritim C. F. (2013). *The effects of budgeting process on financial performance of commercial and manufacturing parastatals in Kenya* (MBA Project). University of Nairobi, Nairobi, Kenya.
- Mose, A.N. (2016). *Effect of Cash Management Practices on the Financial Performance of Insurance Firms in Kenya* (MBA Thesis). Kenyatta University, Nairobi.
- Moyer, R.C, Maguigan, J.R. &Kretlow, W.J. (2011). *Contemporary Financial Management*. Ohio: South Western Publishing.
- Muthaka, D. I. (2014). *A review of regulatory framework for private health care services in Kenya*. Nairobi, Kenya: Kenya Institute for Public Policy Research and Analysis.
- Muthama, R. A. (2016). Effects of cash management practices on operational performance of selected public hospitals in Kisii County, Kenya (Doctoral dissertation, COHRED, JKUAT).
- Muthiani, M. M. (2011). *Relationship Between Cash Conversion Cycle and Financial Performance Of Companies Listed At The Nairobi Stock Exchange* (MBA Thesis). University of Nairobi, Nairobi, Kenya.
- Muthoka, M. K. (2017). *Influence of Employee Relations Practices on Organizational Performance of Public Healthcare Sector in Kenya* (Doctoral dissertation, COHRED, JKUAT).
- Nguyen, K.M. (2011). *Financial management and profitability of small and medium enterprises*. (DBA thesis). Southern Cross University, Lismore.
- Njeru, M. D., Njeru, A., Member, F. &Ondabu I. T. (2015). Effect of Cash Management on Financial Performance of Deposit Taking SACCOs in Mount Kenya Region. *International Journal of Scientific and Research Publications*, 5(2), 1-7.
- Nyambura, W. A. (2016). *Determinants of Demand for Healthcare Services in Private Hospitals in Kenya* (Doctoral dissertation, University Of Nairobi).
- Okwena, K.D., Okioma, T. &Onsongo, E.N. (2011). *An assessment of the effect of proper book keeping practices on the financial performance perspectives from small and medium scale*

- business enterprises in Kisii municipality*. Working Paper, Kisii University College, Kenya.
- Ondiek, B. A., Deya, F.O. & Busaka, J.N. (2013). Cash Management Techniques Adopted By Small And Medium Level Enterprises In Eldoret Town, Kenya. *Research Journal of Finance and Accounting*, 4(18), 90-96.
- Pandey, I.M. (204) Financial Management 7 th Edition Delhi: Ram Pinto graph
- Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2008). *Fundamentals of Corporate Finance*. New York: McGraw-Hill Irwin Publications.
- Tarus, S., & Juma, D. (2017). Role of Cash Planning Technique on Financial Performance in Public Hospitals in Kajiado North Sub-County. *International Journal of Finance*, 2(7), 1-12.
- Thanh, V. H. & Nguyen, M.,H. (2013). The effect of banking relationship on firm performance in Vietnam. *International Journal of Economics and Finance*, 5(5), 148- 158.
- Uwalomwa, A. W. (2013). Impact of Cash Management on the Profitability of Insurance Firms in Nigeria: The Empirical Evidence. *Journal of Finance* 12(5), 114 – 147.
- Waihenya, K.S. (2013). Effect of Working Capital Management on the Profitability of the Firms. *Unpublished Masters of Science Thesis of the University of Nairobi*.
- Wheeler, J. R., Smith, D. G., Rivenson, H. L., & Reiter, K. L. (2010). Capital structure strategy in health care systems. *Journal of Health Care Finance*, 26(4), 42-52.
- Zimmerer, T.W., Scarborough, N.M., & Wilson, D. 2008. Essentials of entrepreneurship and small business management. *5th ed. Upper Saddle River, New Jersey: Pearson/Prentice Hall*.