

**WORKING CAPITAL MANAGEMENT AND FINANCIAL  
PERFORMANCE OF PRIVATE HEALTH FACILITIES IN  
HOMABAY COUNTY**

**BY  
WAYLINE AOKO OKETCH**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD  
OF DEGREE IN MASTER OF BUSINESS ADMINISTRATION,  
FACULTY OF BUSINESS AND MANAGEMENT SCIENCE,  
UNIVERSITY OF NAIROBI**

**NOVEMBER, 2022**

## DECLARATION

This research project is my original work which to the best of my knowledge has not been submitted for examination in any other institution.

SIGNED



Date: 9/11/2022

**WAYLINE AOKO OKETCH**

**D61/87697/2016**

This research proposal has been submitted for examination with my approval as the University Supervisor.

SIGNED:



Date: 9/11/2022

**DR. JOSHUA WANJARE**  
**SENIOR LECTURER,**  
**UNIVERSITY OF NAIROBI**

This research proposal has been submitted for examination with my approval as the University Moderator.

SIGNED



Date 9/11/2022

**DR. NIXON OMORO**  
**SENIOR LECTURER,**  
**UNIVERSITY OF NAIROBI**

## **ACKNOWLEDGEMENT**

First, I give thanks to God for provision of good health during this academic journey.

Thank you dear friend, Kasera Ogola for your unwavering inspiration, charisma and continued support throughout this course.

I wish to acknowledge with gratitude, the contribution of Dr. Joshua Wanjare (My Supervisor) for the exemplary guidance.

My appreciation also goes to the Administrators of the Health Facilities in Homabay County for allowing me to access their financial statements that were the source of secondary data adopted in this study.

## **DEDICATION**

My Loving Parents Dismas Okech and Annie Okech, I appreciate your overwhelming encouragement and financial support.

My Siblings Emily, Lilian and York, Kudos for your help through this journey.

To my special Friend Kasera Ogola, Thank you for the inspiration.

## TABLE OF CONTENT

<b>DECLARATION</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>iii</b>
<b>DEDICATION</b> .....	<b>iv</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>viii</b>
<b>LIST OF FIGURES</b> .....	<b>ix</b>
<b>LIST OF TABLES</b> .....	<b>x</b>
<b>ABSTRACT</b> .....	<b>xi</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.1 Background of the Study .....	1
1.1.1 Working Capital Management.....	2
1.1.2 Financial Performance .....	3
1.1.3 Working Capital Management and Financial Performance.....	4
1.1.4 Private Health Facilities in Homabay County .....	4
1.2 Research Problem .....	5
1.3 Research Objective .....	7
1.4 Value of the Study .....	7
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	<b>9</b>
2.1 Introduction.....	9
2.2 Theoretical Review .....	9
2.2.1 Net Trade Cycle Theory.....	9
2.2.2 Risk trade-off Theory.....	9
2.2.3 The Resource-Based Theory.....	10
2.3 Empirical Literature Review .....	11
2.4 Summary of Literature and Research Gap.....	13

2.5 Conceptual Framework.....	14
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>15</b>
3.1 Introduction.....	15
3.2 Research Design.....	15
3.3 Population .....	15
3.4 Data Collection .....	15
3.5 Data Analysis.....	16
3.5.1 Analytical Model .....	16
<b>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION .....</b>	<b>18</b>
4.1 Introduction.....	18
4.2 Descriptive Statistics.....	18
4.3 Correlation Analysis .....	21
4.4 Regression Analysis.....	22
4.5 Discussion of Findings.....	24
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS</b> <b>.....</b>	<b>26</b>
5.1 Introduction.....	26
5.2 Summary of Findings.....	26
5.3 Conclusion of the Study.....	27
5.4 Recommendations of the Study .....	27
5.5 Limitations of the Study.....	28
5.6 Ideas for Further Research.....	28
<b>REFERENCES.....</b>	<b>29</b>
<b>APPENDICES .....</b>	<b>34</b>
Appendix I: Registered Level 3 and 4 Private Health Facilities in Homabay County. .....	34

Appendix II: Secondary Data Collection Sheet.....36

## LIST OF ABBREVIATIONS

<b>CA</b>	Current Asset
<b>CL</b>	Current Liability
<b>CCC:</b>	Cash Conversion Cycle
<b>KEPH</b>	Kenya Essential Package for Health
<b>MOH:</b>	Ministry Of Health
<b>NGO:</b>	Non-Governmental Organization
<b>NSE:</b>	Nairobi Securities Exchange
<b>OPM:</b>	Operating Profit Margin
<b>ROA:</b>	Return on Assets
<b>ROE:</b>	Return on Equity
<b>WCM:</b>	Working Capital Management
<b>WCMP:</b>	Working Capital Management Policy



## LIST OF FIGURES

Fig 2.1: Conceptual Model .....	14
Figure 4.1 Mean Trend of Dependent Variable (ROA).....	19
Figure 4.2 Bar Chart of mean trends of Study Independent variables.....	20

## LIST OF TABLES

Table 4.1 Descriptive Statistics of Study Variables.....	18
Table 4.2 Pearson Correlation of ROA cum ARTR, APTR, CR and ITR .....	21
Table 4.3 Model Summary .....	22
Table 4.4 Analysis of Variance .....	22
Table 4.5 Regression Coefficients of ARTR, APTR, CR, ITR and ROA.....	23

## **ABSTRACT**

Working Capital facilitates daily operation of firms. The study established influence of Working Capital Management Practices on Financial Performance of Private Health Facilities in Homabay County. Correlation research design was used. Secondary data for the year 2016 to 2020 was used in the Study. The panel data for 115 health facilities-year end observations were used. Descriptive, correlation and panel data regression analysis aided by Statistical Package for Social Sciences was used. The accounts receivable turnover ratio had negative and significant affiliation with Return on Asset. Accounts payable turnover ratio, cash ratio plus inventory turnover ratio had positive and significant affiliation with Return on Asset. The study further revealed that all private health facilities in Homabay County registered positive Return on Asset across the year 2016 to 2020. The study recommend prudent deployment of Working Capital Practices and policies to enhance financial performance of Private Hospitals in Homabay County.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Working capital management (WCM) entails daily undertakings of handling entity's current assets (CA) cum current liabilities (CL). CA consists of cash or cash equivalents while CL are commitments payable within one year. Controlling of CA cum CL is critical for profitability of organizations amid snowballing financial pressures (Vahid, Mohsen & Mohammadreza, 2012). The WCM contributes towards entity's liquidity, profitability cum performance. The organization's financial performance hinge on efficiency of its WCM: Accounts payable, accounts receivable, inventory and cash. Enhancing efficiency level of receivable, cash and inventory management practices allows organizations to improve their financial performance. Collectively, market shares, profits, total assets cum business sales growth are substantial for efficient management of inventory, cash and receivables hence contributing to financial performance of an entity.

The Net trade cycle theory advanced by Shin & Soenen (1998) was the main anchor theory presenting percentages in relation to turnover and showing firms' sales period due for financing, thus advances financial management of assembly entity. The Risk trade-off theory as advanced by Smith (1980) which focuses on liquidity- solvency cum profitability trade-offs of a firm. Resource-Based Theory encompasses the capacity of enterprise administrators to deploy operative engagement of CA of an entity (Alvarez and Busenitz, 2001)

The objective of private health sector being maximizing owners' wealth which involves determining the level of equilibrium in form of performance, liquidity, potency and solvency (Brigham & Ehrhard, 2004). Management of CA and CL requires efficiency which can be achieved through minimization of unnecessary operating assets and maximization of short term financing.

The private health facilities in Homabay County has to adopt the most optimal WCM practices that enhances prudent financial performance to remain afloat in service delivery, thus growth (Kabia, Mbau and Barasa, 2019). Devolution of health services to counties presented myriad administrative challenges, Homabay County included such as persistently shortage of drugs, laboratory reagents, inadequate health workers and Healthcare workers picketing in demand for improved terms of service. Further, high poverty index due to low per capita income with high level of HIV and communicable diseases, has witnessed increased number of private health facilities over the last 10 years to provide supplementary healthcare to constituents (Opon, 2016). The sustainability of private health facilities in Homabay County demand steady WCM practices thus influence on financial performance.

### **1.1.1 Working Capital Management**

Working Capital (WC) denotes entity's recent or short-term net assets (bank balance, cash, receivables, merchantable securities cum closing inventory) less short term liabilities (payables & bank overdraft). The WC symbolizes operating liquidity accessible to an entity (Brigham and Houston, 2007). WC being life-blood of every firm, thus significantly dictate ultimate performance of an enterprise (Shashi & Sharma, 2005). Short-term assets value are attainable in one year firm operating cycle. Short term liabilities are commitments payable within a year. The CL has to be keenly monitored to ensure sufficient liquidity from CA to offset the commitments. WC is thus critical in attaining enterprise profitability cum liquidity.

The WCM is the interplay linking CA with CL. The goal of WCM entails control of firm's CA cum CL to attain reasonable WC level. Effective WCM involves including methods that mitigate risks and non-repayment of short term commitments and not making more investments in assets by putting up measures of control of CA and CL (Lazaridis & Tryfonidis, 2006). According to Sonia (2009), WCM is responsible for myriad failure in private health hospitals.

Several private hospitals do not operationalize their WC to enjoy maximum profit. They concentrate more on cash receipts and bank balances without caring about their financial position (Sunday, 2011). The cash conversion cycle (CCC) states duration firm takes in transforming the inventory into cash. This cycle outline duration it takes to purchase inventory, then translate it to cash. The CCC involves adding inventory to accounts receivable less accounts payable. Efficiency of a company's operations and administration is evaluated via cash conversion cycle (Kombo & Wekesa, 2017).

This study gauged WCM practices deduced as: Accounts receivable management characterized by accounts receivable turnover ratio, accounts payable management characterized by accounts payable turnover ratio, Cash management characterized by cash ratio (Anton and Nucu, 2021) with Inventory Management characterized by inventory turnover ratio (Siedlecki, Pawel, Bem and Szpulak, 2021).

### **1.1.2 Financial Performance**

Financial performance denotes extent of attaining financial objectives. It showcases ultimate entities financial health over review period or relate like firms within the industry or associate industries in combination. McMahon (2011) states that for owners of a firm to maximize on their wealth they must look into profitability being weighty objective of financial management. There are several financial performance measures to evaluate both public and privately held firms such as profitability, return on sales and market share. Profitability denotes how a firm makes gains from factors of production such as labor, administration plus capital. Profitability analysis relates revenues with expenses to ascertain cumulative profits comparative to firm's investment volume. Profitability metrics being ROA, ROE, effective profit margin cum net income. Return on sales shows what an entity makes in relative to its sales. (Hansen & Mowen, 2005).

This study measured financial performance using ROA. ROA reflects management efficiency in exploiting the assets to achieve profits. The ROA being net income plus interest over total assets (Anton and Nucu, 2021). Return on Assets shows how firms employ assets whereas ROE shows the investors rewards from investments (Tangen, 2003).

### **1.1.3 Working Capital Management and Financial Performance**

Working capital management has vital influence on financial performance of firms. There exists reverse linkage concerning CCC with profitability. On the other hand there exists a opposite linkage concerning measures of WCM like inventories days, account receivables days cum CCC on profitability (Uyar, 2009). The affiliation of WC with financial performance has shown different outcomes across various industries as some are positively related while others are negatively related (Anandasayanan, 2013).

Use of different working capital components can lead to an improvement of an organization's financial performance. By shortening the CCC and collection period of accounts receivable, a firm can increase its profitability. A shorter CCC reduces investment needed by a firm in the working capital whereas a higher CCC can lead to high profitability due to longer accounts receivable periods. The outcomes revealed extending CCC for hospitals having great financial leverage reduces profitability and vice versa (Dalci and Ozyapici, 2018). The Working capital had positive influence on profitability of entities to break-even level. Past break-even level, WC begins to adversely influence entity profitability (Anton and Nucu, 2021). No affiliation existed among the financial performance with WCM of the entities (Luchinga, 2014)

### **1.1.4 Private Health Facilities in Homabay County**

There are 23 registered Kenya essential package for health level 3 plus 4 private hospitals spread across 8 Sub- Counties of Homabay County. Out of the 23 Private health facilities, 13 are owned by faith based organizations, 5 are owned by Non-Governmental Organization and

5 are owned by private practice (Homabay County Health Records, 2021). The Ministry of Health (MOH) is mandated with providing an reasonable, inexpensive, accessible cum high-quality health and allied facilities to all Kenyans using the Primary Health Care approach (MOH, 2018).

The private health care sector provide significant support in the healthcare services provision in Kenya. It has bridged resource gap for healthcare expansion by cultivating efficiency cum excellence of care by encouraging competition while supplementing public health segment facilities. Private health facilities in Homabay County are owned by individuals' private practice and faith based organization for profit making while others are non-profit organizations which are meant to help the community. These hospitals get their funds from patients who pay cash, funds from insurance companies, government through National Health Insurance Funds program and from foreign investors (MOH, 2018). The public health facilities in Homabay County have persistently recorded shortage of Drugs, laboratory reagents, inadequate health workers and Healthcare workers picketing in demand for improved terms of service. Homabay County population have high poverty index and low per capita income with high level of HIV and communicable diseases, has witnessed increased number of private health facilities over the last 10 years to provide supplementary healthcare to constituents (Opon, 2016). Thus, investigation of influence of WCM practices on financial performance is handy while seeking to influence sustainability of private health facilities in Homabay County.

## **1.2 Research Problem**

Management of CA cum CL of private health facilities has increased the importance of effective working capital due to increased financial pressures on their profitability. An efficient working capital enables management of CA and CL to lessen their holdings of the hospitals CA like account receivables plus inventories which do not earn interest income cum necessary



financing plus short term debt. WCM practices such as accounts receivables turnover, account payable turnover, cash conversion cycle and inventory turnover affect enterprise profitability adversely as sales growth influence entity profitability positively (Samiloglu & Demirgunes, 2008). WCM practices present varied influence and levels of significance on financial performance in various sectors or industries (Kombo & Wekesa, 2017; Mbawuni, Mbawuni & Nimako, 2016).

Health provision is a key segment in the Kenyan economy as articulated in the Vision 2030 blue print and Kenya universal health coverage policy of 2018 to realize the need for improvement in the health sector to achieve these objectives over a period of time (MOH, 2018). The Human development report (2019) portend the government has only financed hospital activities by 60%, thus under funding of the health sector. The underfunding results into the inefficiencies of the health systems in place cum reduced cost effectiveness in service delivery. Most leading health facilities in Homabay County have chosen to go the private way by getting funds from NGOs, individual investors and insurers (Dutta, Maina, Ginivan and Koseki, 2018). Therefore, study on how WCM practices determine financial performance of the private health facilities in Homabay County is worth.

Previous studies present substantial affiliation of WCM to financial performance. Several empirical studies have been undertaken on WCM in other sectors, with few in hospitals setup, both internationally and locally. Internationally based on hospital sector: Siedlecki, Pawel, Bem and Szpulak (2021) examined WCM of hospitals in Poland. Muhindo and Rwakihembo (2021) studied WCM on financial indicators of private health facilities in western Uganda amid competitive edge. Dalci and Ozyapici (2018) investigated WCM policy cum leverage in health care. The data set included 52 publicly- listed European hospitals. International studies on WCM in other sectors: Anton and Nucu (2021) examined influence of WCM on profitability

of 719 polish listed entities. Results depicted working capital had positive influence on polish entities profitability to break-even level. Past break-even level, WC begins to adversely influence entity profitability. Mbawuni, Mbawuni & Nimako (2016) concentrated on WC of the petroleum companies in Ghana which have favorable net working capital for the firm and also the same favorable net WC to total assets. Jyoti and Uday (2016) concluded existence of affirmative affiliation of WCM with average payment period in Telcom sector in India. The studies on WCM has been published in diverse industries, with very few focusing on health sector and precisely in hospitals in Kenya: Wanjiku, Githui and Omurwa (2021) investigated affiliation of Cash administration with profitability of private hospitals within Nairobi County. Ondari & Muturi (2018) examined influence of WCM on financial indicators by hospitals within Kisii County. Kombo & Wekesa (2017) examined influence of WCM on financial indicators of private hospital in Mombasa County. From reviewed literature, no study has been based in Homabay County, Kenya. Hence, the study filled the contextual and conceptual gap by investigating effects of WCM on financial performance of private hospitals in Homabay County. Thus, the study responded to: What is the influence of WCM practices on financial performance of private health facilities within Homabay County?

### **1.3 Research Objective**

To establish impact of working capital management practices on financial performance of private health facilities in Homabay County.

### **1.4 Value of the Study**

Private hospitals especially those in Homabay County will use the information to navigate on how they can craft proficient WCM policies to maximize the entity's profitability. The study also enabled them to manage their working capital resulting to low operating costs which is critical in the service industry.

This study offered guidelines to other scholars and researchers and offer guidance on future research when used as reference material. The outcome shall enable scholars and researchers advance theories on linkage of WCM facets and financial performance.

The government would adopt study findings to come up with regulatory measures that are needed to improve the health sector. They would develop effective working capital policies to improve performance not only for the health sector but also for firms in other sectors.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter outlines anchor theories and the empirical literature review. The summary of literature, identifying research gap cum conceptual framework are presented.

### **2.2 Theoretical Review**

The Net trade cycle was the main anchor theory, supported by risk trade-off plus resource based theory.

#### **2.2.1 Net Trade Cycle Theory**

The net trade cycle theory (NTC) advanced by Shin and Soenen (1998) bridges the gaps that were noted on Cash Conversion Cycle Theory by presenting percentages in relation to turnover and showing firms' sales period due for financing, thus advances financial management of assembly entity. The NTC indicates period of changing trade components into cash for every item of WC, receivable period outstanding plus inventory period due and payables period due deducted to attain aggregate net trade days. The period being affirmative or adverse. When NTC is affirmative, credit becomes handy for the entity. When the NTC is adverse, advance payment is desirable. The theory anchors the study as it represents financing sales period aligned to health facility level plus considering short term assets. Weinraub & Visscher (1998) posit that, firm's financing style is vital thus touches profitability cum liquidity. This theory is further suitable since it cogitates CA cum CL as components of WC.

#### **2.2.2 Risk trade-off Theory**

The theory was advanced by Smith (1980) which focuses on liquidity- solvency cum profitability trade-offs of a firm. Risk trade-off theory postulates that it is impossible for an entity to give a clear estimate of WC, hence a firm must be able to choose extent of current

output acceptable. Pandey (2015) indicates that a firm mode of operation policy, income cum demand situations, operating competence, its CA affluences depends on its WC policy that either adopt aggressive or conservative WC policy packaged with risk cum return trade-off. Trade off theory portend that large entities may evade failure as they reduce risk by diversifying their plans cum facilities, as they manage their liquidity from broader funds sources. Big entities may get huge inventories on credit cum drag their suppliers' payments (Dash and Ravipati, 2009). Therefore, trade-off aligned to profitability with risk is key issue in the appraisal of extent of WCM of an entity. Eljelly (2004) portend efficient liquidity administration entails planning cum controlling short term assets cum liabilities to lessen financial risks plus evading needless assets investment. This theory anchors this study as it helps understand the instant existence of private hospitals in Homabay County on liquidity, for its long term survival and growth depends on financial indicators.

### **2.2.3 The Resource-Based Theory**

The theory encompasses the capacity of enterprise administrators to deploy operative engagement of CA of an entity (Alvarez and Busenitz, 2001). Good yield is expected when CA are effectively managed. The Resource-Based Theory, thus infers entity administrators, with quantified resources, seizure new openings cum amassing resources prudently with prompt payment cum reduced retrieval of accounts receivable. Akinsulire (2008) reinforced this theory by asserting WC are resources essential for routine service activities of firms. Resource-based is all-inclusive as it consider both tangible and knowledge concerning an entity cum human capital (Barney, 1991). Health facilities resources have to be conferred ultimate significance being key feature its service delivery. The theory is thus relevant as it's all-inclusive cum incorporates every facet of health facilities services, tangible cum intangible.

## 2.3 Empirical Literature Review

There exist several empirical studies, both internationally and locally on affiliation of WCM cum financial performance across the economy. Internationally: Siedlecki, Pawel, Bem and Szpulak (2021) examined WCM in hospitals in Poland. The study analyzed WCM in hospitals based on CCC. Secondary data from 77 non-profit hospitals for 2015 to 2018 used, growth deduced based on year 2014. Panel regression models used for data analysis. Opinion that capital structure is immaterial for CCC was intensely supported.

Muhindo and Rwakihembo (2021) studied WCM amid competitive advantage cum profitability of 32 private health facilities within western Uganda. Study embraced positivist style with cross-sectional research design. Structured questionnaire aided data gathering from respondents purposively selected. Hierarchical multiple regression aided data analysis.

Anton and Nucu (2021) examined effect of WCM on profitability of 719 polish quoted entities from year 2007 to 2016. The study adopted panel data techniques. Results depicted WC has positive influence on polish entities profitability to break-even level. Past break-even level, WC begins to adversely influence entity profitability.

Dalci and Ozyapici (2018) investigated WCM policy amid leverage in health care. The data set included 52 publicly- listed European hospitals with 468 observations solicited. Regression aided data analysis. The outcomes revealed extending CCC for hospitals having great financial leverage reduces profitability and vice versa.

In manufacturing sector, Almomani, Abdullah and Obeidat (2021) study in Jordan Manufacturing firms revealed that IT, RT, current assets turnover plus WC turnover affect financial performance.

In Kenya, Wanjiku, Githui & Omurwa (2021) investigated the linkage between Cash administration cum financial indicators of private hospitals in Nairobi County. Descriptive design was adopted. Primary data collected from 25 private hospitals in Nairobi County. Descriptive plus inferential statistical analyses were adopted.

Similarly, Ondari & Muturi (2018) checked effect of WCM on profitability of hospitals within Kisii County. Correlation research design was used. 29 Kisii County level 4 and 6 hospitals were considered in the study where primary cum secondary data were sourced. The study revealed that WCM practices; AR, AP, CM and IM show positive affiliation with financial performance.

Further, Kombo & Wekesa (2017) examined influence of WCM on financial indicators of private hospitals in Mombasa County. Descriptive research design was adopted to specifically check on influence of inventory, account payable, accounts receivable, CCC cum accounts accruals on financial performance measured by profitability, liquidity and efficiency ratios. The regression equation had robust affiliation with financial performance on accounts accruals cum account receivable while accounts payable plus CCC had adverse significant connection.

Luchinga (2014) investigated WCM touches profitability of agricultural enterprises. The study data drawn from 7 agricultural firms which are quoted at NSE for 2009 to 2012 was gathered from audited financial reports of entities. Regression cum correlation analysis was adopted. ROA was used to deduce profitability of the firms. This study registered no affiliation existed among the financial performance with WCM of the entities, thus, rejected the null hypothesis while on contrary an association among financial performance with WCM of agricultural firms was established leading to acceptance of the alternative hypothesis.

## **2.4 Summary of Literature and Research Gap**

Working capital management in firm's affect its efficiency, general financial health and profitability. The WCM practices has potential gains to firms. WC is what organization uses in its daily actions. Managers are mandated to employ reasonable WCM decisions that creates value for the firm (Dong, 2010).

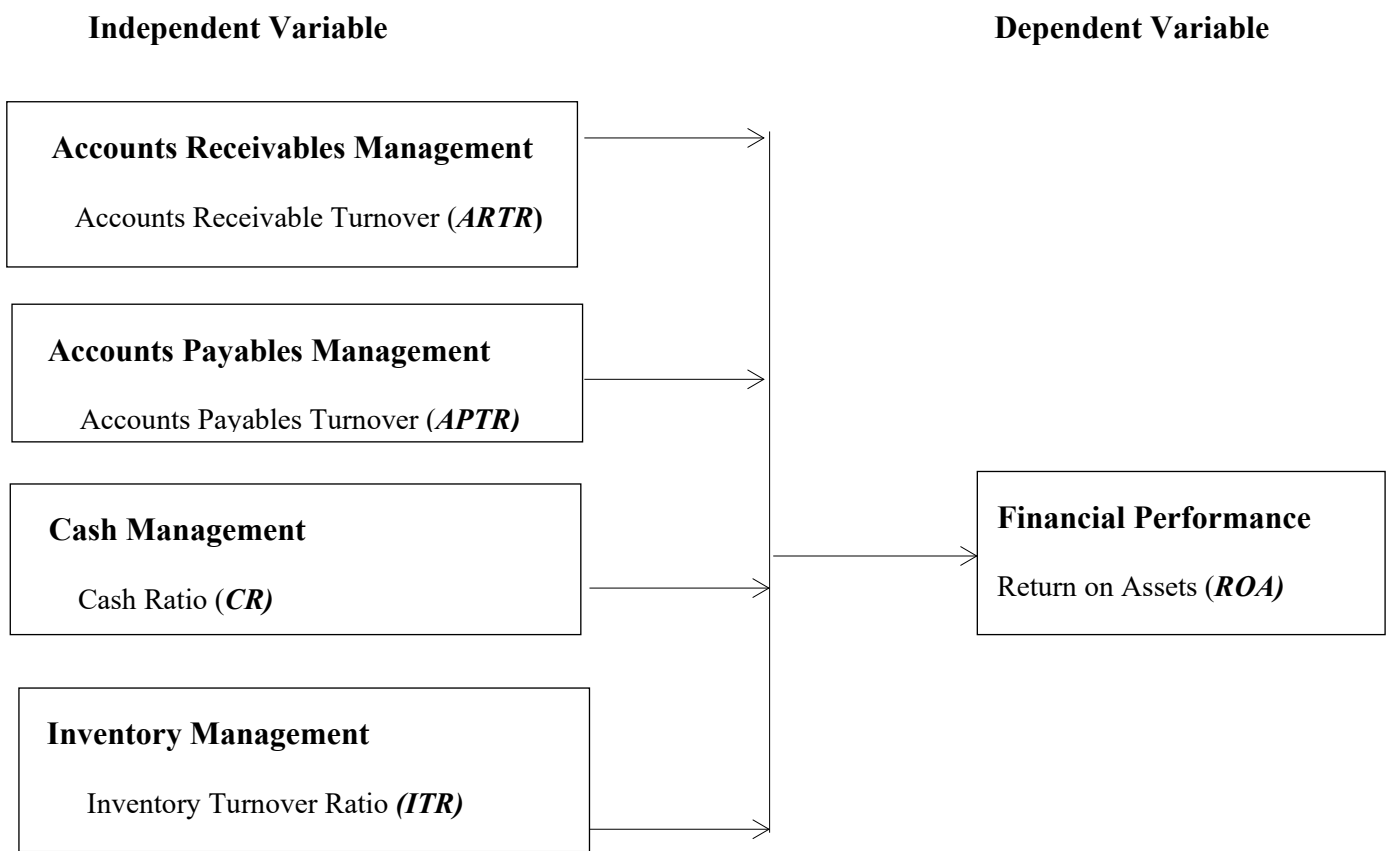
The reviewed empirical literature internationally based on hospital sector are: Siedlecki, Pawel, Bem and Szpulak (2021) examined WCM of hospitals in Poland. Muhindo and Rwakihembo (2021) studied WCM amid competitive advantage on financial indicators of private health facilities in western Uganda. Dalci and Ozyapici (2018) investigated WCM policy cum leverage in health care. International studies on WCM in other sectors: Anton and Nucu (2021) examined influence of WCM on profitability of 719 polish listed entities. Mbawuni, Mbawuni & Nimako (2016) concentrated on WC of the petroleum companies in Ghana which have favorable net WC for the firm and also the same favorable net WC to total assets. Jyoti and Uday (2016) concluded existence of affirmative relationship of WCM with average payment duration in Telcom sector in India.

The studies relating to WCM have been carried out for different industries, with very few focusing on health sector and precisely in hospitals in Kenya: Wanjiku, Githui and Omurwa (2021) investigated the affiliation of Cash administration cum profitability of private hospitals within Nairobi County. Ondari & Muturi (2018) assessed WCM impact on financial indicators of hospitals within Kisii County. Kombo & Wekesa (2017) examined influence of WCM on financial indicators of private hospitals in Mombasa County. From reviewed literature, no study has been based in Homabay County, Kenya. Hence, the study filled this contextual and conceptual gap by investigating influence of WCM on profitability of private health facilities within Homabay County.



## 2.5 Conceptual Framework

Figure 2.1 exhibits conceptual aspect of how study itemized influence of WCM on profitability of private health facilities within Homabay County. WCM practices considered: AR management deduced by ARTR, Accounts payable management deduced by APTR, Cash Management deduced by cash plus cash equivalents all over total assets with Inventory Management deduced by inventory turnover ratio (ITR) as predictor variables. Financial performance as dependent variable deduced by ROA.



(Source: Researcher, 2021)

**Fig 2.1: Conceptual Model**

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The chapter presents the research design. It further highlights population, data collection process plus data analysis.

### **3.2 Research Design**

The correlation research design was adopted. Correlation research design was ideal to define power cum trend of connotation amid variables (Cooper & Schindler, 2012). Correlation coefficient signifies alteration in a variable as a consequence of variation in other variables (Kothari, 2012). The correlation research design was used successfully by Afza & Nazir (2009).

### **3.3 Population**

The population entailed 23 registered Kenya essential package for health (KEPH) level 3 plus 4 private health facilities spread across 8 Sub- Counties of Homabay County that had been in operation as from 2016 to 2020 (Appendix I). Mugenda & Mugenda (2003) terms population as gathering of people, subjects or events that have common visible features. Census was considered ideal as there are only 23 registered KEPH level 3 plus 4 private health facilities in Homabay County (Kothari, 2012).

### **3.4 Data Collection**

The study gathered secondary data for 2016 to 2020 from audited financial reports all 23 registered KEPH level 3 plus 4 private health facilities in Homabay County. Study obtained secondary data from financial reports such as financial position statement, comprehensive income statement cum cash flows statements for the five years from private health facilities.

Secondary data gather form adopted to gather both predictor plus Dependent variables data (Appendix II).

### 3.5 Data Analysis

The data was analyzed using descriptive plus inferential statistics via SPSS software. The descriptive statistics like mean and standard deviation was used. Correlation and panel data regression analysis ascertained links between study variables. Panel data set of 115 (23 health facilities by 5 years) health facility-year end annotations for 2016 to 2020 was used. The Panel data, likewise denoted like Cross-sectional time series data demonstrated the trend of study variables in every entity and across entities (every entity year is on surveillance). The data set allowed firms behavior scrutiny across time (Siedlecki, Pawel, Bem and Szpulak, 2021; Faleye, Hoistash & Hoistash, 2011). The study considered 5% level of significance ( $P < 0.05$ ).

#### 3.5.1 Analytical Model

The study used multivariate regression model below to analyze data:

$$ROA_{it} = \alpha + \beta_1 ARTR_{it} + \beta_2 APTR_{it} + \beta_3 CR_{it} + \beta_4 ITR_{it} + \varepsilon$$

Where:

**ROA:** Returns on Assets of private health facility.

**ROA<sub>it</sub>:** Returns on assets of private health facility *i* at time *t* (*i* =1, 2 ....23 private health facilities).

$\alpha$ : = intercept

**ARTR:** Accounts Receivable Turnover Ratio

**APP:** Account Payable Turnover Ratio

**CR:** Cash Ratio = (Cash + Cash Equivalent)/Total Assets.

**ITP:** Inventory Turnover Ratio

$\varepsilon$ : The error term of the model.

$i$  = Firm1 to Firm 23,  $t$  = 2016, 2017, 2018, 2019, 2020.

$\beta 1, \beta 2, \beta 3, \beta 4$  = coefficient of WCM.

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter presents data analysis, explicitly show discussion cum presentation of results.

### 4.2 Descriptive Statistics

The descriptive statistics are shown as minimum, maximum, mean plus standard deviation. The mean of both ROA and Independent variables have been presented in table as well as bar graphs.

**Table 4.1 Descriptive Statistics of Study Variables**

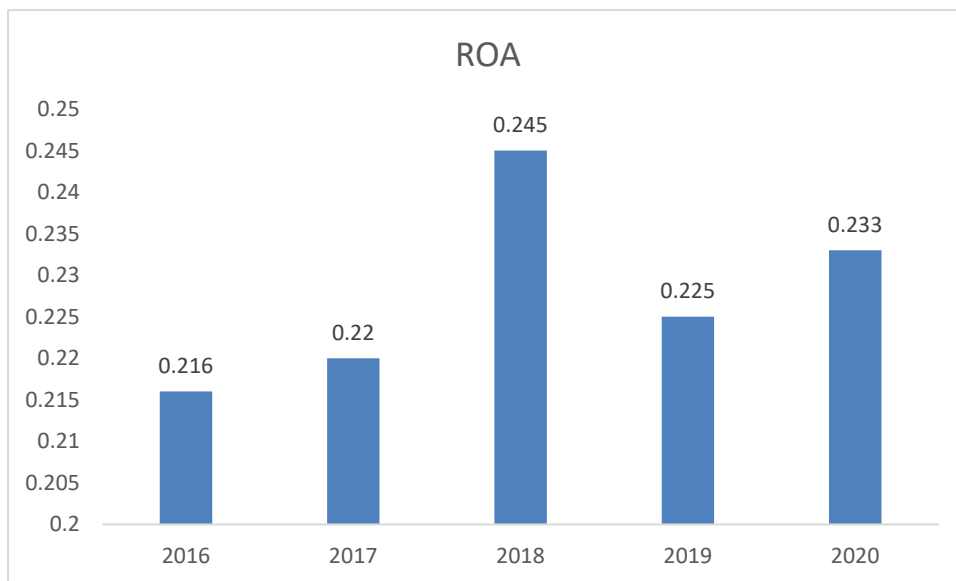
	N	Minimum	Maximum	Mean	Std. Deviation
ARTR	115	3.693	8.964	6.17663	.913421
APTR	115	3.004	7.875	4.57669	.824751
CR	115	.119	.896	.27035	.129078
ITR	115	2.673	7.525	4.00811	.923401
ROA	115	.116	.492	.22783	.056080
Valid N (listwise)	115				

**Source: (Research Data, 2021)**

Table 4.2 shows Descriptive Statistics; minimum, maximum, mean and standard deviations of 115 health facilities-years end observations for the study variables. The ARTR had minimum of 3.693, maximum of 8.964 and mean of 6.177. This denoted private health facilities within Homabay County, on average collects debts owed by their customers six times a year or every two months, thus promptly collect debts. The APTR had minimum of 3.004, maximum of 7.875 and mean of 4.577. This depicted private health facilities in Homabay County on average pay their suppliers four times a year or within 3 months. The CR has minimum of 0.119, maximum of 0.896 and Mean of 0.27. This insinuated private health facilities in Homabay County are

relatively liquid and can undertake some transaction with cash and cash equivalents. The ITR had minimum of 2.673, maximum 7.525, Mean of 4.008 with Standard Deviation of 0.923. This implies that private health facilities restock four times a year or every three months, thus prudent inventory management. ROA had minimum of 0.4378, maximum of 2.0953 and mean of 1.314. This depicted all private health facilities in Homabay County generate a profit.

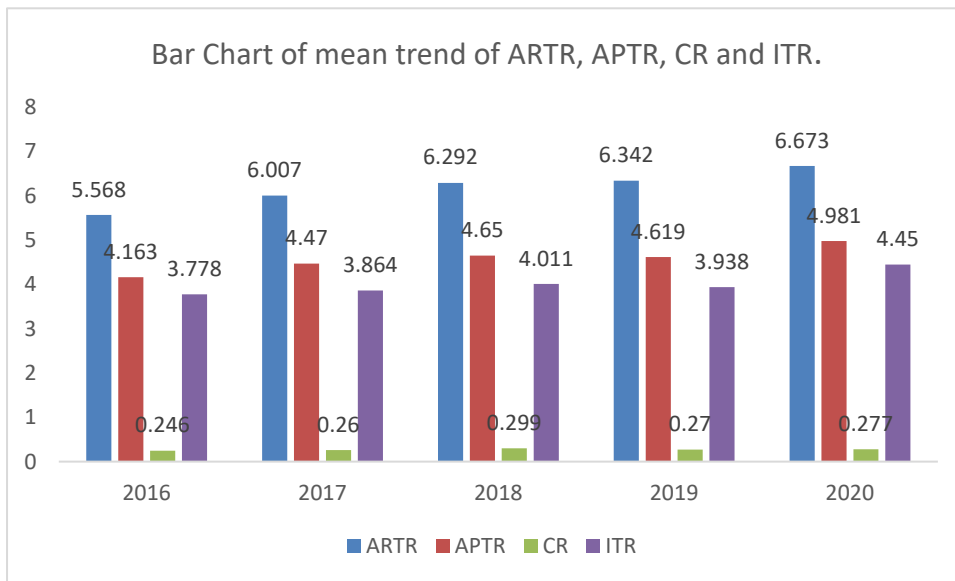
**Figure 4.1 Mean Trend of Dependent Variable (ROA).**



**Source: (Research data, 2021).**

Figure 4.1 denotes ROA mean movement from 2016 to 2020. The mean ROA of the private health facilities increased from 0.216 in 2016 to highest of 0.245 in 2018, dropped to 0.225 in 2019 then improved to 0.233 in 2020. This depict that private health facilities in Homabay County generate positive ROA (profitability) across the years under review.

**Figure 4.2 Bar Chart of mean trend of Study Independent variables**



**Source: (Research data, 2021).**

Figure 4.2 denotes mean trend in Independent variables: ARTR, APTR, CR and ITR. The ARTR increased from 5.568 in 2016 to the highest of 6.673 in 2020. APTR similarly increased from 4.163 in 2016 to the highest of 4.981 in 2020. ITR also increased from 3.778 in 2016 to the highest of 4.45 in 2020. CR increased from 0.246 in 2016 to the highest of 0.299 in 2018, then stabilized at 0.27 in 2019 and 2020. This depicts growth and sustainability of operation and WCM level in private health facilities in Homabay County.

### 4.3 Correlation Analysis

**Table 4.2 Pearson Correlation of ROA cum ARTR, APTR, CR and ITR**

	ROA	ARTR	APTR	CR	ITR
ROA	1				
Pearson Correlation					
Sig. (2-tailed)					
N	115				
ARTR	.579	1			
Pearson Correlation					
Sig. (2-tailed)	.003				
N	115	115			
APTR	.556	.222	1		
Pearson Correlation					
Sig. (2-tailed)	.006	.070			
N	115	115	115		
CR	.454	.270	.194	1	
Pearson Correlation					
Sig. (2-tailed)	.001	.064	.060		
N	115	115	115	115	
ITR	.445	.276	.242	.174	1
Pearson Correlation					
Sig. (2-tailed)	.002	.080	.060	.066	
N	115	115	115	115	115

Correlation is significant, P<0.05 (2-tailed).

**Source: Research data (2021).**

Table 4.2 illustrates Pearson correlation of ROA with ARTR, APTR, CR and ITR. The correlation coefficients between ROA with ARTR (0.579), APTR (0.556), CR (0.454) and ITR (0.445) are positive and significant. Thus, the WCP’s have positive significant impact on profitability of private health facilities within Homabay County. Correlation matrix showed little correlation between predictor variable, thus analysis is free from multicollinearity.



#### 4.4 Regression Analysis

The panel data regression analysis on WCM practices: ARTR, APTR, CR and ITR with ROA via SPSS are illustrated.

**Table 4.3 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.892 <sup>a</sup>	.796	.612	.156034
a. Predictors: (Constant), ARTR, APTR, CR and ITR.				

**Source: Research Data (2021).**

Table 4.3 displayed R square of 0.796 designating overall best fit and showed 79.6% fitness in clarifying impact of ARTR, APTR, CR and ITR on profitability (ROA) of private health facilities in Homabay County. The R-square implied 79.6% of alterations in ROA relates to variations in ARTR, APTR, CR and ITR while 20.4% of alterations in ROA do not relate to independent variables thus error term.

**Table 4.4 Analysis of Variance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.337	4	1.084	143.007	.006 <sup>b</sup>
	Residual	.834	110	.008		
	Total	5.171	114			
a. Dependent Variable: ROA						
b. Predictors: (Constant), ARTR, APTR, CR, and ITR. P<0.05						

**Source: Research Data (2021).**

Table 4.3 displayed Analysis of variance providing level of variability of model and test of significance at 0.006. This depicts that the model fit to ascertain variability with significance at 0.006 (P<0.05).

**Table 4.5 Regression Coefficients of ARTR, APTR, CR, ITR and ROA**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.495	.037		5.311	.004	.123	.268
1 ARTR	-.247	.010	-.220	-7.700	.006	-.028	.013
APTR	.214	.013	.204	1.040	.001	-.013	.040
CR	.130	.057	.169	.525	.000	-.083	.143
ITR	.201	.009	.194	.169	.001	-.016	.019

a. Dependent Variable: ROA

**Source: Research Data (2021)**

Table 4.5 displayed regression coefficients of ARTR, APTR, CR, and ITR with ROA. The ARTR had negative standardized coefficient of -0.220 denoting a negative affiliation between ARTR to ROA. This depicts that as ARTR diminishes, ROA reduces. Hence, there exists a significant negative affiliation between ARTR to ROA of private health facilities in Homabay County. Thus a decrease of 1 unit in ARTR causes reduction on the rate of ROA with corresponding -0.220 units of ROA and significant at 0.006 ( $P < 0.05$ ). Thus improvement in Account Receivable trigger reduction in working capital and vice versa. APTR had positive standardized coefficient of 0.214 with ROA. Insinuating 1 unit improvement in APTR triggers matching positive linkage to ROA with a significance at 0.001 ( $P < 0.05$ ). Thus, improvement of accounts payables turnover trigger an upsurge of ROA of private hospitals within Homabay County. CR had standardized coefficient of 0.169, thus an improvement of a unit of CR results in positive increase of ROA and was significant at 0.000 ( $P < 0.05$ ). This depicts an escalation in cash ratio trigger upturn in ROA of private hospitals within Homabay County.

ITR had standardized coefficient of 0.194 highlighting positive affiliation with ROA that was significant at 0.001. This portend an increase in inventory turnover result into an increase in ROA of private health facilities in Homabay County. Model predictor variables (ARTR, APTR, CR and ITR) affiliations with ROA were statistically significant ( $P < 0.05$ ). Thus, the model:  $ROA_{it} = \alpha + \beta_1 ARTR_{it} + \beta_2 APTR_{it} + \beta_3 CR_{it} + \beta_4 ITR_{it} + \varepsilon$ , substituting the intercept, coefficients and error term, become:

$$ROA_{it} = 0.495 - 0.247 ARTR_{it} + 0.214 APTR_{it} + 0.13 CR_{it} + 0.201 ITR_{it} + 0.156034.$$

#### **4.5 Discussion of Findings**

The study revealed influence of various WCM practices: ARTR, APTR, CR and ITR on Financial performance (ROA) as analyzed via descriptive, correlation plus panel data regression analysis. ARTR had mean of 6.177, denoting that private health facilities in Homabay County, on average collects debts owed by their customers six times a year or every two months, thus promptly collect debts. The APTR had a mean of 4.577, depicting that private health facilities in Homabay County on average pay their suppliers four times a year or within 3 months. The CR has a mean of 0.27, insinuating that private health facilities in Homabay County are relatively liquid and can undertake some transaction with cash and cash equivalents. The ITR had a mean of 4.008, implying that private health facilities restock four times a year or every three months, thus prudent inventory management. The ROA has a mean value of 1.314, depicting that all private health facilities in Homabay County generate a profit. The correlation coefficients between ROA with ARTR (0.579), APTR (0.556), CR (0.454) and ITR (0.445) are positive and significant. This outcome is in tandem with (Dalci and Ozyapici, 2018; Ondari & Muturi, 2018; Almomani, Abdullah and Obeidat, 2021) that revealed that WCM practices; AR, AP, CM and IM show positive affiliation with financial performance.

The panel data regression analysis shows: The ARTR had negative standardized coefficient of -0.220 denoting a negative cum significant affiliation between ARTR to ROA. Thus improvement in Account Receivable triggers reduction in working capital and vice versa. APTR had positive standardized coefficient of 0.214 with ROA. Thus, a rise of accounts payables turnover triggers growth of ROA of private hospitals within Homabay County. CR had standardized coefficient of 0.169, depicting improvement in cash ratio triggers surge in financial performance (ROA). The ITR had standardized coefficient of 0.194 implying increase in inventory turnover trigger increase in ROA of private health facilities in Homabay County. Results conforms to (Siedlecki, Pawel, Bem and Szpulak, 2021; Ondari & Muturi, 2018; Kombo & Wekesa, 2017).

The study did not explore effect of WCM Practices in stages; before, at and after break even as was the case in Anton and Nucu (2021) where results depicted WC had positive influence on polish entities profitability to break-even level. Past break-even level, WC begins to adversely shake entity profitability.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

The chapter outlines summary, conclusion of study, recommendations, limitation cum ideas for further research.

### **5.2 Summary of Findings**

The study examined influence of WCM practices; ARTR, APTR, CR and ITR on ROA of private health facilities in Homabay County. Net trade cycle theory mainly anchored the study, supported by Risk trade-off theory as advanced by smith (1980) and Resource-Based Theory (Alvarez and Busenitz, 2001). The study adopted correlation research design (Kothari and Garg, 2014; Cooper & Schindler, 2012). The secondary data for 2016 to 2020 were obtained from audited financial reports of entire 23 registered KEPH level 3 plus 4 private health facilities in Homabay County.

The Descriptive Statistics show: The ARTR had minimum of 3.693, maximum of 8.964 and mean of 6.177. The APTR had minimum of 3.004, maximum of 7.875 plus mean of 4.577. CR has minimum of 0.119, maximum of 0.896 plus Mean of 0.27. The ITR had minimum of 2.673, maximum 7.525 plus Mean of 4.008. ROA has minimum of 0.4378, maximum of 2.0953 plus mean of 1.314.

Panel data regression analysis shows influence of coefficients of ARTR, APTR, CR, and ITR with ROA. The ARTR had negative standardized coefficient of -0.220 denoting a negative affiliation between ARTR to ROA. The APTR had positive standardized coefficient of 0.214 with ROA. The CR had standardized coefficient of 0.169. The ITR had standardized coefficient of 0.194 highlighting positive affiliation with ROA of private health facilities in Homabay

County. Thus, the regression model substituting the intercept, coefficients and error term, become:

$$ROA_{it} = 0.495 - 0.247 ARTR_{it} + 0.214 APTR_{it} + 0.13 CR_{it} + 0.201 ITR_{it} + 0.156034$$

### **5.3 Conclusion of the Study**

The WCM practices; ARTR had negative significant while APTR, CR and ITR present positive significant impact on ROA of private hospitals within Homabay County. Thus private health facilities and other organizations should take keen interest in receivables management, payable management, inventory management plus cash management to enhance financial growth and performance. Private health facilities should ensure they hold minimal but adequate stock to cater for their daily operational needs, thus financial performance. Further, for emergency undertakings, some cash and cash equivalents should always be available in private health facilities.

### **5.4 Recommendations of the Study**

The private health facilities in Homabay County and other Counties in Kenya should craft proficient WCM policies cum practices to maximize their profitability. Prudent WCM lowers operating costs which is key in service industry.

This study offered guidelines to other scholars and researchers and offer guidance on future research when used as reference material. The outcome shall enable scholars and researchers advance theories on linkage of WCM facets and financial performance.

The government to formulate regulatory measures geared towards improving the private health sector financial performance strength. Effective working capital policies to improve performance not only for the health sector but also for firms in other sectors be developed based on the study outcome.

## **5.5 Limitations of the Study**

The study only used secondary panel data gathered from financial statements of KEPH level 3 and 4 private health facilities, views of key informants at health facilities via questionnaire were not considered.

The study covered only KEPH level 3 and 4 private health facilities in Homabay County, Kenya, though the outcomes could be a pointer to scenarios in other counties in Kenya.

The research was limited to WCM practices influence on financial performance deduced by return on assets. Other aspects of WC such as policies cum approaches were not studied.

## **5.6 Ideas for Further Research**

Further studies to check influence of WCM facets on financial performance of private health facilities cum other sector firms before, at and after break even in Kenya.

Another study should focus on WCM approaches or policy adopted by private health facilities in Homabay County and in Kenya.

## REFERENCES

- Afza, T., & Nazir, M. (2007). Is it better to be aggressive or conservative in managing working capital? *Journal of Quality and Technology Management*, 3 (2), 11-21.
- Afza, T., & Nazir, M. (2009). Impact of Aggressive Working Capital Management Policy on Firms' Profitability. *The IUP Journal of Applied Finance*, 15 (8), 19-27.
- Akinsulire, C. (2008). *Financial Management (5<sup>th</sup> edition)*. Ceemol Nigerial Limited. Lagos, Nigeria.
- Anandasayanan, S. (2013) "The determinant of leverage of the listed companies in Sri Lanka; An empirical Study. *International Journal of Research in Commerce & Management*, 3 (6).
- Anton and Nucu (2021). The Impact of Working Capital Management on Firms Profitability: Empirical Evidence from the Polish Listed Firms. *Journal of Risk and Financial Management*, 14, 9.
- Barney, J. (1991). Firm Resources and Sustainable Competitive Advantage. *Journal of Management*, 17, 99-120.
- Biwott, R. K. (2011). The Relationship between Working Capital Management Practices and Profitability of Companies Quoted at the Nairobi Stock Exchange. *Unpublished MBA Project, University of Nairobi*
- Brigham, E. F., & Ehrhardt, M. C. (2004). *Financial Management: Theory and Practice*, 11<sup>th</sup> Edition, South-Western College Publishing, New York.
- Brigham, F., & Houston, J. (2007). *Fundamentals of Financial Management*. Cengage Learning, 11.
- Caffasso, A. (2011), Relationship between Accounts receivables Management Financing Policy and profitability: A Survey of Manufacturing Firms in Kenya. *Unpublished MBA Management project, University of Nairobi*.
- Cooper, R. & Schindler, P. (2007). *Business research methods*. Tata McGraw Hill.
- Cote, J. M., & Latham, C. K. (1999). The merchandising ratio: A comprehensive measure of working capital strategy. *Journal on Issues in Accounting Education*, 14(2), 255-267.
- Dalci and Ozyapici (2018) investigated working capital management policy in health care: the effect of leverage. *Journal of health policy, Elsevier*, 122 (11), 1266-1272.
- Deloof, M. (2003). Does working capital management affect the working capital of Belgian firms? *Journal of business finance & Accounting*, 3(5), 573-587.



- Dong, H. P., & Su, J. T. (2010). The Relationship between Working Capital Management and profitability: A Vietnam Case. *International Research Journal of finance economic*, 49(1), 59-67.
- Dutta, A., Maina, T., Ginivan, M., and Koseki (2018). *Kenya Health Financing System Assessment: Time to pick the best path*. Washington, DC: Palladium, Health Policy Plus.
- Eljelly A. (2004). Liquidity- Profitability trade off: An empirical investigation in an emerging market. *International Journal of Commerce and Management*, 14 (2), 48-61.
- Faleye, O., Hoitash, R., & Hoitash, U., (2011). The cost of intense board monitoring. *Journal of Financial Economics*, 101 (1), 160-181
- Filbeck, G., & Krueger, T. M. (2005). An Analysis of Working Capital Management Results Across Industries, *Mid-American Journal of Business*, 20(2), 11-18.
- Gitman, L. A. (2005). *Principles of Managerial Finance*, 11<sup>th</sup> Edition, Addison Wesley Publishers, New York.
- Hansen, G., Mohen, M. (2005). *Management Accounting*, 7<sup>th</sup> Edition. Singapore: South-Western.
- Jyoti, M. and Uday, K. J. (2016). Impact of Working Capital Management on Profitability: Indian Telecom Sector. *Ramaiah University of Applied Sciences, Bangalore*.
- Kabia, E., Mbau, R., and Barasa, E. (2019). We are called the et cetera: Experiences of the poor with health financing reforms that target them in Kenya. *International Journal for Equity in Health*. 18 (98).
- Kamula, W. K. (2011) Relationship between working capital management and profitability of cement companies in Kenya. *Unpublished MBA Research Project. Nairobi, Kenya: University of Nairobi*.
- Kithii, J. N. (2008). The relationship between working capital management and profitability of companies listed at the NSE. *Unpublished MBA Research project*, University of Nairobi.
- Kombo, J. A. and Wekesa, M. (2017). Effect of working capital management on financial performance of private medical facilities in Mombasa County. *The Strategic Journal of Business and Change management*, 4 (10), 169-188.
- Kothari, C.R. (2012). *Research Methodology; Methods and Techniques*. Second Revised Edition New Age International publishers' ltd. New Delhi
- Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital Management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*. 19 (1), 26-35.

- Luchinga, L. M. (2014). The effect of working capital management on the profitability of agricultural firms listed at the Nairobi Securities Exchange. *Unpublished MBA Research Project*. Nairobi, Kenya: University of Nairobi.
- Lyroudi, K., & Lazaridis, Y. (2000). The Cash Conversion Cycle and Liquidity Analysis of the Food Industry in Greece (Electronic Version). EFMA 2000 Athens, from <http://ssrn.com/paper=236175>
- Mbawuni, J., Mbawuni, M. and Nimako, S. (2016). The impact of Working Capital Management on Profitability of petroleum Retail Firms: Empirical Evidence from Ghana. *International Journal of Economics and Finance*, 8 (6), 1-49.
- McMahon, M. (2011). The systems theory framework of career development. *Journal of Employment Counseling*, 48 (4).
- Mathura, D. (2009). The influence of working capital management components on corporate profitability; a survey of Kenya Listed Companies
- MOH (2018). *Kenya Household Health Expenditure and Utilization Survey*. Nairobi, Kenya: Government of Kenya.
- Mugenda, M.O. & Mugenda, G.A. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Laba Graphics Services
- Muhindo, C. and Rwakihembo, J. (2021). Working capital management and financial performance of private hospitals in western Uganda: The mediating effect of competitive advantage. *International Journal of business strategies*, 6 (1).
- Mutungi, J. (2010) “Working capital management, access to financing, and firm value.”
- Opon, S. O. (2016). Provision of essential health package in public hospitals: A case of Homabay County Hospital, Kenya. *Pan African Medical Journal*, 24 (8), 1-8.
- Ondari, N. J. and Muturi, W. (2018). Effect of working capital management on financial performance of hospitals in Kisii County, Kenya. *International Journal of Social Sciences and Information Technology*, 4 (10), 341-353.
- Padachi, K. (2006). Trends in working capital management and its impact on firm’s performance. An analysis of Mauritanian small manufacturing firms. *International review of business research papers* 2(2). 45-58.
- Peel, M. J., & Wilson, N. (1996). Working capital and financial management Practices in the small firm sector. *International small business journal*: 14, 58
- Pinches, G.E. (1992). *Essentials of Financial Management*, 4<sup>th</sup> Edition, HarperCollins College Publishers, New York.

- Pandey, I.M. (2015). *Financial Management*. 11<sup>th</sup> Edition. Vikas Publishing House PVT Ltd. New Delhi. India
- Raheman, A., & Nasr, M. (2007). *Working Capital Management and Profitability-case of Pakistani firms*. *International review of Business research paper*, 3 (1), 279-300
- Samiloglu, F., & Demiraunes, K. (2008) "The Effect of Working Capital Management on the Firm Profitability: Evidence from Turkey", *International Journal of Applied Economics and Finance*, 2(1), 44-50.
- Siedlecki, R., Pawel, P., Bem, A., and Szpulak, A. (2021). Working capital management in hospitals: evidence from Poland. *European Research Studies Journal*, 24 (1), 836-850.
- Scherr, F. C. (1989) *Modern Working Capital management, Text and Cases*. Prentice-Hall International.
- Shashi, K., & Sharma, R. K. (2005) *Management accounting – Principles and practice*, Kalyani Publishers, New Delhi, 10th edition, 23-36
- Shin, H. H., & Soenen, L. (1998). "Efficiency of Working Capital and Corporate Profitability", *Financial Practice and Education*, 8 (2), 37-45.
- Smith, K. (1980). *Profitability versus Liquidity Tradeoffs in Working Capital Management*, in *Readings on the Management of Working Capital*, West Publishing Company, St. Paul, New York.
- Soenen, L. A. (1993). Cash conversion cycle and corporate profitability. *Journal of Cash Management*, 13(4), 53-58.
- Sunday, J. (2011). *Business Finance, Theory and Practice* 5th edition, University of Plymouth Business School. Financial Times Pitman Publishing.
- Tangen, S. (2003). An overview of frequently used performance measures. *International Journal of Productivity and Performance Management*, 52(7), 347 - 354.
- Uyar, A. (2009), "The Relationship of Cash Conversion Cycle with Firm Size and Profitability: An Empirical Investigation in Turkey" *International Research Journal of Finance and Economics*, 24, 186-193
- Vahid, T. K., Mohasen, A. K., and Mohammadreza, E. (2012). The impact of working capital management policies on firms profitability and value: Evidence from Iranian companies. *International Research journal of finance and economics*, 88 (2), 156-162.

Wanjiku, E. N., Githui, T. and Omurwa, J. (2021). Relationship between Cash management and financial performance of private hospitals in Nairobi County, Kenya. *Stratford peer reviewed journals and books*, 5 (2).

Weinraub, H. J., & Visscher, S. (1998). Industry Practice Relating to Aggressive Conservative Working Capital Policies. *Journal of Financial and Strategic Decision*, 11 (2), 11-18.

## APPENDICES

### Appendix I: Registered Level 3 and 4 Private Health Facilities in Homabay County.

	NAME	REG. NUMBER	KEPH LEVEL	TYPE OF OWNERSHIP	CONSTITUENCY
1	Atemo Health Centre	13489	3	Faith Based Organization	Kabondo Kasipul
2	Bondo Awino	21648	3	Faith Based Organization	Kasipul
3	Mangima SDA Health Centre	13768	3	Faith Based Organization	Kasipul
4	Mawego Health Centre	13795	3	Faith Based Organization	Karachuonyo
5	Mirogi Health Centre	13813	3	Faith Based Organization	Ndhiwa
6	Raruowa Health Centre	14039	3	Faith Based Organization	Karachuonyo
7	Shirikisho Health Centre	14078	3	Faith Based Organization	Kasipul
8	St Mary's Health Centre (Mbita)	14119	3	Faith Based Organization	Mbita
9	St Paul's Health Centre	14124	3	Faith Based Organization	Homabay Town
10	Tonga Health Centre	14152	3	Faith Based Organization	Suba
11	Asumbi Mission Hospital	13488	4	Faith Based Organization	Rangwe
12	Kendu Adventist Hospital	13667	4	Faith Based Organization	Karachuonyo
13	Matata Nursing Hospital	13789	4	Faith Based Organization	Kasipul
14	Mamas Nursing Home	22695	3	Non-Governmental Org,	Ndhiwa
15	Okita Health Center	22532	3	Non-Governmental Org,	Karachuonyo
16	Mfangano Community Health Centre	22371	3	Non-Governmental Org,	Mbita
17	Manyatta Community Nursing Home(Ndhiwa)	25179	3	Non-Governmental Org,	Ndhiwa
18	Port Florence Community Hospital Mbita	20225	4	Non-Governmental Org,	Mbita
19	Hawi Family Hospital	24237	4	Private Practice	Kasipul

20	Misiwi Memorial Hospital	26492	4	Private Practice	Suba
21	Sori Lakeside Hospital (Sindo)	23677	4	Private Practice	Suba
22	St.Lawrence Hospital (Homabay Town)	21162	4	Private Practice	Homabay Town
23	St.Lawrence Hospital (Rangwe)	26668	4	Private Practice	Rangwe

(Source: Homabay County Health Records Database, 2021)

## Appendix II: Secondary Data Collection Sheet

Health Facility Name:

<b>Independent Variable</b>			
<b>Symbol</b>	<b>Measures and Component</b>	<b>Formulae</b>	<b>Output</b>
<b>ARTR</b>	<b>Accounts Receivable Turnover Ratio</b>	Net Credit Sales/Average Accounts Receivable	
	Net Credit Sales		
	Average Accounts Receivable		
<b>APTR</b>	<b>Accounts Payable Turnover Ratio</b>	Net Credit Purchases/Average Accounts Payable	
	Net Credit Purchases		
	Average Accounts Payable		
<b>CR</b>	<b>Cash Ratio</b>	(Cash + Cash equivalents) / Total Assets	
	Cash		
	Cash Equivalents		
	Total Assets		
<b>ITR</b>	<b>Inventory Turnover Ratio</b>	Net Sales/Average Inventory at selling price	
	Net Sales		
	Average Inventory at selling price		
<b>Dependent Variable</b>			
<b>ROA</b>	<b>Return on Asset</b>	Net Income/Total Assets	
	Net Income		
	Total Assets		