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FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS MANAGEMENT

**AN ANALYSIS OF THE IMPACT OF WORKING CAPITAL
MANAGEMENT ON COMPANY LIQUIDITY: A CASE OF
CHIPINGE DISTRICT HOSPITAL.**

BY

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*A DISSERTATION SUBMITTED TO THE MIDLANDS STATE UNIVERSITY IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE BCOM HONOURS
DEGREE IN BUSINESS MANAGEMENT.*

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APPROVAL FORM

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AN ANALYSIS OF THE IMPACT OF WORKING CAPITAL

MANAGEMENTON COMPANY LIQUIDITY: A CASE

OF

CHIPINGE DISTRICT HOSPITAL

SUBMITTED BY MAKAYA LLOYD (R113027C) IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE BACHELOR OF COMMERCE HONORS DEGREE IN BUSINESS MANAGEMENT (HMAN).

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DEDICATION

This dissertation is dedicated to my father, mother and anyone who stood by my side to complete this programme. I will always remember them.

ACKNOWLEDGEMENTS

I thank the almighty Lord for granting me with the health, strength and ability to successfully undertake the study.

Special thanks are extended to my father and my mother for their endurance, unfailing support and continued encouragement.

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ABSTRACT

Working capital management is vital and it has become the lifeblood of any organisation. This research study “Analysis of the impact of working capital management on company liquidity: The case of Chipinge District Hospital.” This research study sought to examine the implications of effective working capital management on organisation’s liquidity. The research sought to fulfill objectives such as assessing the influence of average collection period, average creditors’ payment period and the effects of cash conversion cycle on liquidity as well as making specific recommendations for improvement in liquidity. The research looked at, among other issues definition of working capital management, efficient working capital management, gross working capital and net working capital, permanent and temporary working capital, optimum working policy, impact of cash conversion cycle, debtors’ collection period and creditors payment period on liquidity. Beside these, other aspects covered include working capital financing, empirical literature on the impact of working capital management on liquidity and effective management of cash, inventory, account receivables and trade payables. In carrying out the research, the researcher used descriptive research design, both primary and secondary sources of data were used. A target population of 49 was used and a sample size of 25 was employed. The research make use of both probability and non-probability sampling methods. Probability techniques used was stratified random sampling. On non-probability sampling techniques, convenience and purposive sampling methods were employed. Self-completion questionnaires and interviews were used as the research instruments. From the information gathered during the research, it was noted that cash conversion cycle, debtors’ collection period, inventory conversion period and creditors’ payment period are significant indicators of working capital management. More so it has been revealed that the organisation had a longer average collection and payment period. Cash conversion cycle and debtors payment period have a strong negative relationship with liquidity. A strong positive relationship between creditors’ payment period and liquidity has been observed. Besides this, it has been noted that cash and inventory management techniques were fairly understood and used in the hospital. Basing on the findings of the research, it has been concluded that working capital management has an influence on liquidity, shorter creditors’ payment period reduces cash flow position of the organisation. Furthermore, longer average collection period reduces cash flows. Lack of proper cash flow forecasting leads to revenue and expenditure mismatch and causes cash crisis. From the research findings, the researcher recommended the organisation to set realistic cash flow forecasts and create a sound and defined credit policy and improve its collection procedures. Its operations requires to be computerised in order to enhance efficiency. Again, internal control systems needs to be reviewed periodically and develop modern internal control systems. and lastly but not the least an organisation –wide approach is required to enhance wholesome effective working capital management.

ACRONYMS AND ABBREVIATIONS

APP	Average Payment Period
ACP	Average collection period
AICP	Average Inventory Conversion Period
CCC	Cash Conversion Cycle
CDH	Chipinge District Hospital
CRF	Consolidated Revenue Fund
EOQ	Economic Order Quantity
HSF	Health Services Fund
HTF	Health Transition Fund
JIT	Just In Time
MOH&CC	Ministry of Health and Child Care
MOF	Ministry Of Finance
PFMA	Public Finance Management Act
WCM	Working Capital Management

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CHAPTER ONE

1.0 INTRODUCTION

This chapter looks at the preamble to the research. It covers the background of the study, statement of the problem, research objectives together with the research questions. Significance of the study, delimitations as well as limitations are also examined in order to critically analyse the impact of working capital management on organisation's liquidity with the intention to indicate the feasibility of the research.

1.1 BACKGROUND

Many Third World Countries are largely dependent on publicly funded and provided health services. The public sector found it worthwhile not to lose total control of the health sector. This is mainly centered on the premises that privately provided services are inequitable and this would naturally impact negatively on the poor as they cannot afford the high fees associated with privately provided services. As is the case with the health sector in most African countries, the government is the major provider of health in Zimbabwe. However to effectively retain this status has been increasingly becoming difficult. This is owing to public sector resource limitations which are a result of fiscal deficits, shrinking donor funds, heavy external debts and misappropriation and embezzlement of public funds by personnel.

The implications of health financing in Zimbabwe is equitable access for everyone to health services. In Zimbabwe, public health sector operations financing mainly comes from revenues generated through tax collections. These are disbursed by the Finance Ministry to the Ministry of Health and Child Care. The Consolidated Revenue Fund (CRF) is the principal source of funding for government (Bhala, 2013). Public health sector operations are depending on user fees, donations and health insurance income. Recent challenges in the economic and political environment and limited donor support created limited health human resources, essential medicines as well as medical supplies. As a result of these challenges public health facilities are not functioning effectively as they continue struggling to cover costs for basic services, maintenance and upgrading of infrastructure and equipment.

In September 1996, the Health Services Fund (HSF) was initially created with the purpose of improving health service delivery by way of decentralization of funding to district hospitals. The hospital management boards, in terms of Health Services Act (Chapter 15:16) has the mandate to supervise the Health Service Fund as stated in Section 18 of Public Finance Management Act (PFMA). The Health Transition Fund seeks to resuscitate the current financing instruments to cover specific operational expenses and general maintenance costs of health facilities (UNICEF Report, 2011).The decentralization of financial resources through the use of the service fund procedures and support of the health transition fund is meant to enhance primary care health package delivery free of charge for all children with 5 years and below, pregnant women and people with 65 years above of age. The Health Service Fund covers costs which are non–capital investments in nature.

As outlined in the UNICEF Report (2011), user fee income in Zimbabwe is being used generally to cover non-salary regular costs. It is shared and re-disseminated through the Health Services Fund .However such fees should be recognized as stepping stones to more or less equitable financing mechanisms instead of funding routine resource requirements. The sole purpose of user fees is to limit and meet overhead running expenses of health facilities, essential medicines and basic equipment specifically for routine services.

District hospital charges are pegged depending on age of the patient and the nature of the health service to be rendered. Age categories are the 6-12 years and the 13 -65 years where the younger pay lesser compared to the older age group. Other age groups are provided free health service in line with the government policy and health service board directive.

Table 1.1: Hospital Services Fees Structure

Service type	Charges
Below 6 years and above 65 years	FREE
Outpatient consultation	\$6.00 for adult/\$3.00 for children
Admission to general ward per day	\$4.00 for adult/\$2.00 for children

Pharmacy charges	Depend on type of drug
Medical exam	\$30.00
Blood	\$85/pint
Theatre	\$50.00
Physiotherapy	\$12.00
Dental	\$12.00
X-ray	\$12.00
Inspections	\$30.00 for company premises/\$10.00 for individual premises

Source: MOH&CC District Hospital Services Charges 2014

Chipinge District Hospital is one of the public health institutions in Zimbabwe which is located in Chipinge Town of Manicaland. It is at the south of Mutare and in the east it borders with Mozambique. It is the first level referral center for patients in Chipinge district. At district level, it is the referral of the five hospitals namely Mt Selinda Hospital, St Peter's hospital, Chikore Mission hospital and Birchnough bridge hospital and it has 38 administrative wards. The hospital serves a large population surrounding Chipinge district which constitutes five facets, namely, Chipinge west, south, east, north and central. It is made up of several departments which covers administration, pharmacy, lab, catering, four wards, human resources, theatre, x ray, physiotherapy, OPD, OI and finance among others and all these require adequate liquidity to make the hospital deliver efficient and effective health services to the public.

As is the case with all public hospitals in Zimbabwe, CDH get most of its working capital from user fees, being payments made by patients for service provision. User fees are mainly from the following services comprising outpatient department and opportunistic infections consultation, pharmacy drugs, ward admissions, x-ray service, theatre, medical examinations, and dental. The average weekly revenues

obtained from health services collections making up Health Services Fund at CDH are shown in the table below:

Table 1.2: CDH average weekly revenues (HSF)

Health Service	Revenues(\$ US)
Dental	170.00
Lab	420.00
X-Ray	364.00
Debtors	480.00
Outpatients department consultation	735.00
Physiotherapy	180.00
Opportunistic infections consultation	750.00
Ward	560.00
Blood	425.00
Drug	630.00
Theatre	420.00
Total	5134.00

Source: Chipinge District Hospital HSF (Week Ending 27 June 2014)

Given the limited funding from the government and with the case of Chipinge District Hospital, it is imperative for the hospital to enhance effective management of its working capital so that it can improve liquidity needed to cover operational costs and ensure sustainability of health service provision to the public. Liquidity problems had been confronting the health institution and kept the hospital struggling to operate and offer quality health service delivery.

Inadequate cash had resulted in critical shortage of health consumables constituting drugs, detergents, insufficient health and safety kits. Majority of essential drugs are out of stock in the pharmacy and patients are referred to private pharmacies namely

Chipinge Pharmacy and Chipinge Town Council Clinics to find such drugs as the hospital is failing to stock adequate drugs to meet demand of the population it serves. The hospital is overextending the length of time to make its debt payments to its suppliers. This has been a cost to the hospital as it is incurring penalties for late payments. In some cases it is even forced to pay cash on delivery and cash before delivery. More so supplier ends up reluctant to offer future credit such that the hospital is forced to make cash payments and because of this it could just afford limited purchases which have proved expensive.

Huge drug losses are being incurred as a result of obsolescence given poor storage facilities and large stocking of slow moving drugs. Replacing of new stock order is taking longer time than expected such that it does not have in place adequate common stock of drugs to offer to patients. Poor cash planning and budgeting are in place as it is difficult to ascertain future cash surplus or deficits in time which makes it easier to manage its expenditure and safeguard its cash.

Hospital infrastructure is dilapidated and maintenance is poor. Broken windows are not repaired. The rooms are characterized by poor ventilation as there is lack of necessary systems. The beds aren't comfortable for the patients and the blankets are not warm. X-ray materials specifically films commonly run out of stock and patients are directed to Mt Selinda hospital for the X-ray service yet patients getting this service pay for it. Hospital vehicles are not getting regular services. The state of patients' diet is poor and not appetizing as people resort to bring in their own prepared food from homes even if it is not allowed. Some patients who are not financially backed under admission in the hospital are seriously affected as by virtue of their illness cannot manage eating hospital meals yet patients are not allowed to bring in cooked food from outside as per hospital policy. The meal is poorly prepared as the job is done by unqualified males. The nature of meal provision and preparation is not appropriate to make patients want to eat in order to get better. Table 1.3 below illustrates a summary of the pathetic state of affairs in the catering department in terms of the nature of meal provision.

Table 1.3: Daily Meal Roaster

Day of the week	Breakfast	Supper	Dinner
Monday	Porridge	Sadza/cabbage	Sadza/beans
Tuesday	White rice/tea	Sadza/beans	Sadza/cabbage
Wednesday	Porridge	Sadza/matemba	Sadza/cabbage
Thursday	White rice/porridge	Sadza/beef	Sadza/cabbage
Friday	Bread/tea	Sadza/cabbage	Sadza/matemba

Source: CDH Catering Department Meal Roaster 2014

Huge cumulative amounts of the hospitals cash is tied up in both group and individual debtors which is directly attributed to improper management of debtors in place. This is owing to absence of a clearly defined and reviewed credit policy. Debtors aging analysis is not properly and regularly executives.

Table 1.4: Cumulative debtors balance for the first quarter

	Jan	Feb	Mar	April
Group debtors	\$US	\$US	\$US	\$US
Wattle Company	1217	2337	3007	4207
Tanganda Tea Company	1340	2460	3130	3800
south downs Holdings	1120	1740	2860	3480
NSSA	2133	3246	4112	5370
Social Welfare	3180	5420	7660	9900
PSMAS	2140	4560	3460	5240
NAMAS	1970	3410	4113	4966
GRAINMED	987	1568	2670	3111
Tongogara Refugee Camp	1890	3555	2300	3115
First Mutual Services	740	970	1158	2798
ZRP	690	1478	2916	3916
National Army	440	769	1340	2110
individual debtors	3800	6650	8878	9134

Totals	21647	38163	47604	61147
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Source: CDH First quarter Debtors report 2014

From the health debtor's report as shown above, the debtors figure for each of the group and individual debtors for each of the consecutive four months has been increasing. Monthly total debtors for the first quarter of 2014 have been rising. For the month of January, total debtors balances amounted to US\$21647, 00 which increased to US\$38163, 00 in February, US\$47604, 00 in March and US\$61147, 00 in April. The debtors' balances depict a rising trend which strains working capital position for the hospital

1.2 STATEMENT OF THE PROBLEM

Liquidity problems have afflicted Chipinge District Hospital. The hospital is failing to recover in time all its receivables and continue to experience increasing bad debtors. The hospital is in conflict with its suppliers and creditors over deferral payment. The health institution is seriously operating with low level stocks of essential medicines such that demand cannot be satisfied. On top of these, the hospital is struggling to match its expenditures with revenues.

As a result the hospital is struggling to cover its short term obligations and upcoming operating expenses. The quality of the health services delivery system has been compromised. The failures are directly attributed to liquidity crisis and it is on this premise that the research seeks to analyse the relationship between working capital management and liquidity in the public health institutions.

1.3 RESEARCH OBJECTIVES

The research seeks to fulfil the following objectives:

- To examine WCM and its implication on liquidity in public hospitals
- To assess the effects of average debtors collection period on liquidity in public hospitals.
- To examine the effects of average creditors payment period on liquidity in public hospitals.

- To establish the effects of cash conversion cycle on liquidity in public hospitals.
- To make some specific recommendations for improvement of the liquidity management.

1.4 RESEARCH QUESTIONS

- What is the implication of working capital management on liquidity in public hospitals?
- What is the impact of debtors average collection period on liquidity in public hospitals?
- What is the effect of creditor's average payment period on liquidity in public hospitals?
- What is the effect of cash conversion cycle on liquidity in public hospitals?
- What are the specific recommendations for improvement of the liquidity management in public hospitals?

1.5 STATEMENT OF HYPOTHESIS

H0: There is no relationship between working capital management and liquidity of public hospitals.

H1: There is a relationship between working capital management and liquidity.

1.6 SIGNIFICANCE OF THE STUDY

To Chipinge District Hospital

The study intends to establish the efficiency of working capital management in relation to liquidity of public hospitals in Zimbabwe. This will act as an assessment on the hospitals efficiency on working capital management and liquidity management and the results will be adopted by public hospitals in crafting strategies to cushion themselves from liquidity crisis.

To Midlands State University

The results of this research will deliver literature for reference and review by other researchers who might want to carry out research studies on a similar area. Also the findings of this research will assist in the academia field by giving a balanced insight of policy direction on the implication of working capital management on liquidity by public hospitals.

To the Researcher

This study will be of great significance to researchers and policy makers in the health sector in that by establishing the relationship between working capital management and liquidity, hospitals will assess the performance of one using the other and in planning for liquidity.

1.7 DEIMITATIONS

Geographical delimitations

This research focused on Chipinge District Hospital only. This is the place where the problem has been originated and identified which might be a reflection of similar problems across all public hospitals in Zimbabwe.

Period of focus

The report shall focus on the period ranging from 2013 to 2014. This has been the period when the hospital has been seriously confronted by escalating liquidity problems.

Theoretical aspects

The research focuses on analysing the influence of working capital management on liquidity at CDH. The research was motivated by the hospital's failure to meet its short term obligations and operational expenses. This is perceived to be emanating from an ineffective working capital management in place, hence the need to examine how it is related with liquidity.

1.8 ASSUMPTIONS

The research shall base on the following assumptions:

- a) Secondary data relevant to the research shall be accessed.
- b) The findings can be generalized to the other public hospitals in Zimbabwe.
- c) Most of respondents will co-operate and reply the questionnaires sent to them.

1.9 RESEARCH LIMITATIONS

The research will be limited to:

- a) Unavailability of some respondents at the time of conducting interviews and questionnaires. However the researcher shall notify the respondents on the dates to conduct the questionnaires and interviews. Telephone interviews shall be conducted to take note of those who may be not in place. Questionnaires will be delivered to the respondents in time to enhance ample time is available to generate response.
- b) Time Limitations. However the researcher shall make use of a smaller sample since better time control can be exercised and more accurate data be produced in the interests of generalizing the results of the entire population

1.10 DEFINITION OF TERMS

Working Capital: this is the difference between cash resources or which are readily convertible into cash and short term organisational commitments.

Working Capital Management: refers to the relationship between short term assets and short term liabilities (Pandey, 2005).

Liquidity: refers to the organization's ability to fund increases in assets and meet obligations as they come due.

Current liabilities: these are company's debts or obligations which are due within a year.

Current assets: are short term resources owned by an organization.

Average collection period (ACP): this is the average time required to convert the company's receivables into cash.

Average payment period (APP): this is the average number of days a company takes to pay off its credit purchases.

Cash conversion cycle (CCC): refers to the summation of average collection period and inventory conversion period less average creditors' payment period (Keown et al, 2003).

ACRONYMS

AAP	Average Payment Period
ACP	Average collection period
AIP	Average Inventory Period
CCC	Cash Conversion Cycle
CDH	Chipinge District Hospital
CRF	Consolidated Revenue Fund
HSF	Health Services Fund
HTF	Health Transition Fund
MOH&CC	Ministry of Health and Child Care
MOF	Ministry Of Finance
PFMA	Public Finance Management Act
WCM	Working Capital Management

1.11 CHAPTER SUMMARY

The chapter gives highlights on the background history of working capital management at CDH. It looks at the research objectives, research questions and justifications of the study as well as assumptions, limitations and delimitations with regards to the implication of working capital management on liquidity of public hospitals

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter seeks to look extensively into the existing literature, synthesizing, comparing as well as contrasting literature related to the aspects of working capital management and its impact on liquidity in public health organisations. It covers literature in the form of working capital concepts, frameworks, cases and researches conducted in relation to working capital management. The literature also covers analysis of numerous working capital management components and their influence on liquidity as well as offering techniques, models and measures which organisations can use to facilitate efficient working capital management.

2.1 DEFINITIONS OF WORKING CAPITAL MANAGEMENT

Sheeba (2012) defines working capital management as the management of the current assets held by a firm. According to Rostagi (2010) working capital management is the administration of all current assets and current liabilities of an organisation. Working capital management concentrate on determining working capital needs, optimum levels of investments in current assets and the significance of each working capital component. Khan et al (2004) explains that WCM concentrates on problems that arise in the management of both current assets, current liabilities as well as the inter connections that exist between them. Pandey (2005) elaborated that WCM examines the relationship between short term assets and short term liabilities of an organisation.

Horne et al(1998) agrees with Rostagi(2010) on that sound working capital management requires an organization to make two fundamental decisions, determination of the optimal level of current asset investments and its appropriate short term financing mix. Pandey (2005) concurs with Khan et al (2004) when they postulated that WCM looks at the linkage that exist between short terms assets and short term liabilities.

Current assets and current liabilities influence each other and this knowledge becomes useful when making working capital related decisions by finance managers. From afore- mentioned definitions, it can be seen that WCM is all about planning, organizing and controlling the current assets and current liabilities in such a way that a balance between the two is maintained. A favorable position normally arises when an organization's current assets are adequately enough to cover its current liabilities. This enhances that an acceptable level of working capital is maintained to safeguard against bankruptcy organisation as well as pursue its operations, cover short term debts and meet upcoming expenses.

2.2 EFFICIENT WORKING CAPITAL MANAGEMENT

WCM is centered on maintaining an optimum balance of working capital components which is made up of receivables, payables, inventory and efficient deployment of cash for daily operations of the organisation. Effective management and control of the various components of WC has in modern organisation been seen as the most vital role of financial managers (Mathur, 2003). The transformation has resulted in finance managers concentrating more on working capital efficiency instead of capital budgeting and capital structure decisions.

Efficient WCM is critical as it has an implication on improving organisation's unrestricted cash flow which ultimately influences revenues to be generated by the organization. It plays a pivotal role in ensuring current assets and current liabilities movements are matched to improve liquidity and overall revenues that the organization can generate.

Efficient Working Capital Management has become very significant in financial management as it influences the organisation's financial performance, risk and liquidity. A properly planned and executed working capital policy is expected to contribute favourably and immensely towards creation of an organization's value (Padachi, 2010).

Effective working capital management enhances the organisation is capitalizing on the benefits accruing from net current assets by ensuring best level which is needed to satisfy working capital needs. Therefore the significant aspects of working capital

management is to keep the levels of cash, inventory, and trade receivables at a level which guarantee customer goodwill while keeping costs to a minimum.

2.3 MEANING AND CONCEPT OF WORKING CAPITAL

Working capital refers to the funds which are necessary to cover operating costs of the entity. These are current assets transformed in the normal course of business from each form going to another. Working capital represents funds which have been invested in current assets which are investments in stocks, cash and debtors among others. Current assets play a pivotal role in any organisation as they facilitate productive deployment of fixed assets. An example is plant and equipment cannot be used without raw materials (Rostagi, 2010).

Current assets are short term resources which will be converted into cash in the normal course of the activity in a period not exceeding a year while current liabilities are obligations envisaged at their beginning to be paid within a year in the normal course of business activity from current assets or revenues. Usually current liabilities are made up of accounts payables, bills payables, bank overdraft and outstanding expenses.

2.3.1 Gross working capital versus Net working capital

From a conceptual viewpoint, working capital can be put into two different ways, which is gross working capital and net working capital.

Gross working capital refers to investments in all the current assets taken together. Net working capital refers to excess of total current assets over current liabilities (Moyer, 1998). Khan (2004) defines Net working capital in two ways which is the difference between short term assets and obligations. Alternatively, it is the position of current assets which are financed with long term financing.

Net working capital is used as a measure of liquidity because of the fact that the larger the margin by which current assets exceeds current liabilities, the greater the ability to cover obligations when they fall due. Net working capital is very significant due to the non-synchronous nature of cash flows. Generally, cash outflows are reasonably predictable whereas cash inflows are difficult to predict. The greater the degree of

predictability, the lesser the Net working capital requirement while on the other side when cash flows cannot be predicted easily, the organization need to more net working capital.

From this point, hospitals for instance cannot ascertain precisely how much it expect to obtain from patients as collections while it is easy to make projection of cash outflow related expenditure. This calls for the greater need to have more net working capital available.

2.3.2 Permanent working capital versus Temporary working capital

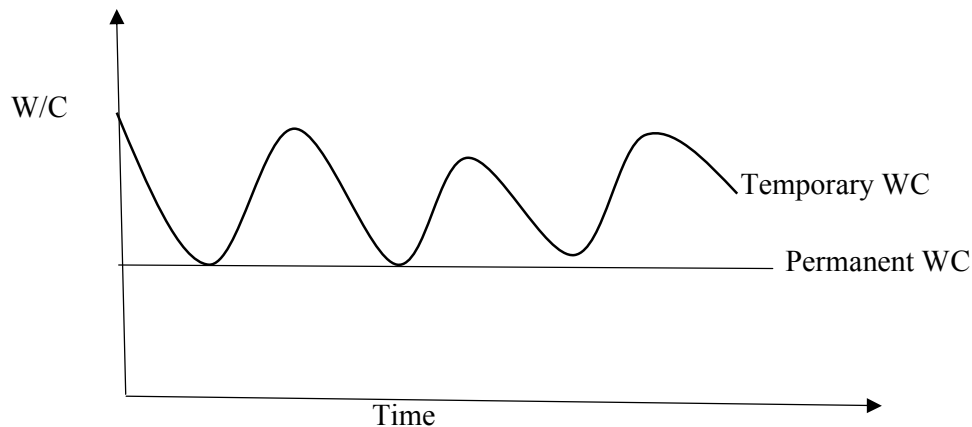
Permanent working

From viewpoint of time, working capital is categorized in to permanent working capital. This can be referred to as hard core working capital which is the minimum level of investments in current assets needed by a firm to conduct a minimum level of activities. This is certain minimum level of working capital which is necessary on an incessant basis, whose requirement has to be met perpetually in the same way with fixed assets.

Temporary working capital

Temporary working capital is sometimes known as variable working capital or fluctuating working capital which refers to that portion of total working capital needed by a firm over and above the permanent level of working capital. The portion of working capital is needed to meet fluctuations in demand (Khan et al, 2005). Volumes of working capital keep on fluctuating from time to time in relation to business activities.

Fig 2.1: Permanent and temporary working capital.



Source: Rostagi (2010)

2.4 OPTIMUM WORKING CAPITAL

An organisation needs to sustain sound working capital position to improve the effectiveness of its operations and financial management. Having too much or too little working capital in an organisation is not beneficial at any point, hence the finance managers on behalf of the organisation need to maintain an optimum capital balance that would create a productive position.

2.5 WORKING CAPITAL POLICY

Kretlow et al (2009) describes working capital policy as relating to decisions about an organisation's current assets and current liabilities in terms of composition, the way they are employed and on how the mix influence risk and return. Working capital policy is crucial to the organisation's long term growth and survival. A properly-established goal for many organizations is to maintain as little working capital balance as is possible while others could pursue zero working capital strategies (Maness et al, 2005). The quantum of working capital requirement depends directly on organisation policy regarding current asset levels (Mathur, 2003). Different organizations do have different working capital policies and Arnold (2005) has suggested that three different working capital policies are determined by the working capital levels.

2.5.1 Conservative policy

This has also been termed liberal or flexible policy in which an organisation's prefer to have huge levels of cash, bank balance in current account and investments in readily

marketable securities (Mathur, 2003). This would entail substantial funds being tied in debtors. These investments in various components of current assets would naturally create the need for higher levels of current liabilities and working capital requirements. This nature of policy suits well for organizations operating in industries which have higher levels of uncertainties in which liquidity buffers are mostly needed.

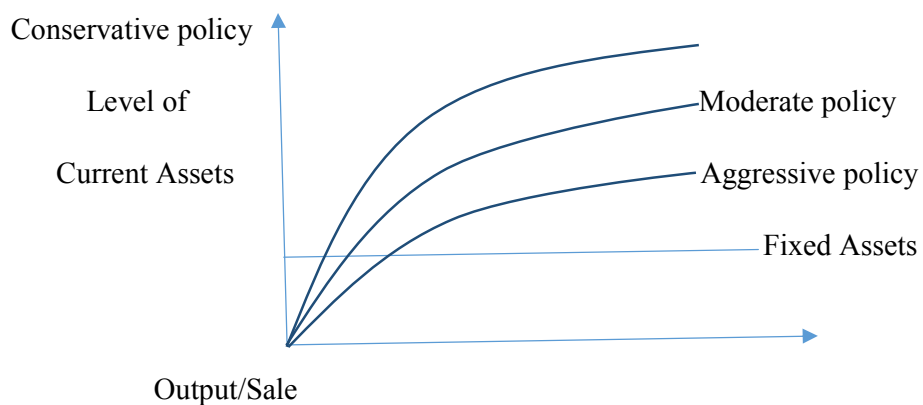
2.5.2 Aggressive policy

This policy requires the organization to operate on lower levels of current assets and working capital requirement. Just minimal safety inventory as well as lower cash balances would be needed. However this strategy can increase the risk of losses by way of stock outs which impact adversely on smooth production and lowering revenue. Organizations which adopt aggressive policy is common in business areas whose cash flows can be more ascertained.

2.5.3 Moderate policy

This policy of working capital lies in between the relaxed and aggressive policies (Arnold, 2005). An organisation would need moderate working capital requirement which is neither too high nor too low, but right. Aggressive and conservative policies have comparable merits and demerits in terms of carrying costs and stock outs (shortage costs).

Fig 2.2: Working capital policies



Source: Sheaba (2012)

The whole essence of working capital policy is to determine the optimum level of current assets being the point of tradeoff between inventory carrying costs and stock out costs in terms of loss of production and sales and resultant loss of customer goodwill.

2.6 FINANCE MIX DETERMINATION

Determination of finance mix is a crucial aspect of working capital management. It focuses on measuring the relationships on risk, liquidity and the return. Also it decides on the type of financing which is most suitable in order to fulfil the working capital requirements of an organisation. The following are approaches which can be used to determine an appropriate Working Capital financing mix.

2.6.1 Hedging Approach

This is the matching approach which outlines that long-term financing is used to fund fixed assets and permanent current assets. Furthermore short-term financing is used to finance temporary or variable assets. An organisation should adopt a financial plan and this approach implies matching the expected lifespan of assets with its expected life of the sources of funds.

2.6.2 Conservative Approach

This approach entails that current assets need to be financed from long-term sources while the short-term sources needs to be used only to finance emergency requirements.

2.6.3 Aggressive Approach

Requirement of current assets is financed through short-term sources and part of fixed assets financing comes from short- term sources. However, this strategy is risky, but less costly and more productive.

2.7 IMPACT OF WORKING CAPITAL MANAGEMENT ON LIQUIDITY

Working capital management deals with funds involved in the daily operations of an organisation. The value of current assets continuously changes either positively or negatively depending on the operation of the organisation. Therefore the subject of management of working capital has become increasingly relevant in order to safeguard the entity from liquidity problems.

Ineffective working capital management can quickly cause current assets to get out of the control of management. Efficiency in the investment of current assets requires tight monitoring and control. The effects of current asset management on organisation's total risk, cost, return and liquidity gives working capital management very significant for all organisations (Sheeba, 2012).

The management of current assets directly has a bearing on liquidity and efficient management of current assets leads to a better liquidity position for the organisation. Better liquidity implies greater ability in the management of expenses and obligations.

An organization is required to maintain a balance between liquidity and revenue while conducting its daily operation. This has the implication that an organization need to be run both efficiently and productively. However, assets-liability miss-match normally arises in the process, which may sometimes increase the firm's revenue in the short - run but at a risk of bankruptcy. The consequences are twofold as too much focus on liquidity will be at the expense of revenue generating capacity. Furthermore, if management fails to regularly monitor and manage organizational liquidity being, its amount of working capital, the organization can end up in a difficult situation with its creditors (Padachi 2006). As a result, most successful organizations strive to keep the working capital ratio as low as possible while keeping cash circulating, in order to maximize revenue.

Efficiency in working capital management is so vital mostly for organizations whose assets are mostly made up of current assets as this directly affects liquidity of any company (Raheman et al, 2007). Bankruptcy or liquidation can be more likely for organizations that employ improper working capital management procedures into practice despite reporting excess revenue (Kargar et al, 1994).In addition, excessive levels of Working Capital can actually yield catastrophic results as inconsiderable amount of it may create shortages and challenges in carrying out its daily operations. Blumenthal (1994) confirm to the fact that, organizations which have low liquidity, facing higher risk on return, results to high revenue. However, the issue of concern is the management of working capital and how organizations must balance its risk and return in order not to lock up its revenue in the future.

Liquidity management looks at how the company manages its current assets and its liabilities. Efficient working capital management is important for maintaining liquidity, survival, solvency and financial performance of business (Mukhopadhyay, 2004). This level of efficiency of working capital management is centered on the premise of speeding up cash collections and delaying disbursements. The way working capital is managed denotes a crucial impact on cash holdings of organizations (DeLoof, 2003). It promotes sound liquidity for future success and sustainability thus enabling acceptable relationship between the components of organization's working capital for efficient mix which is significant guarantee for capital adequacy. There appear to be a certain level of working capital requirement, which probably maximizes liquidity (Moore et al, 2008). Organisations may have an optimal working capital level which enables them to improve its cash. Huge surplus funds together with generous credits might leads to low liquidity levels.

Generally, the fundamental goals of working capital management are to ensure that the organization has enough and sustainable cash flow to fund its operations. This requirement is particularly heightened for health care organization mostly in developing countries. For hospitals, being liquid is not negotiable, given limited government funding in Zimbabwe, in particular, for the reason that there is need to conduct daily transaction on top of ensuring enough liquid funds are available to meet patients' needs or medical services. Working capital management is aimed at sustaining strong financial position together with sound liquidity. In turn it leads to strong cash holdings for ensuring effective and efficient health care service delivery.

Since hospitals of developing countries largely depend on the government, third parties such as donors and medical aid companies, they rely more strongly on internally generated funds from collections than some hospitals from developed economies. Working capital management is related to short-term financial planning and is cash leveler, on the other side liquidity generally represents a significant indicator for short-term performance. Effective and efficient working capital management should be of crucial importance.

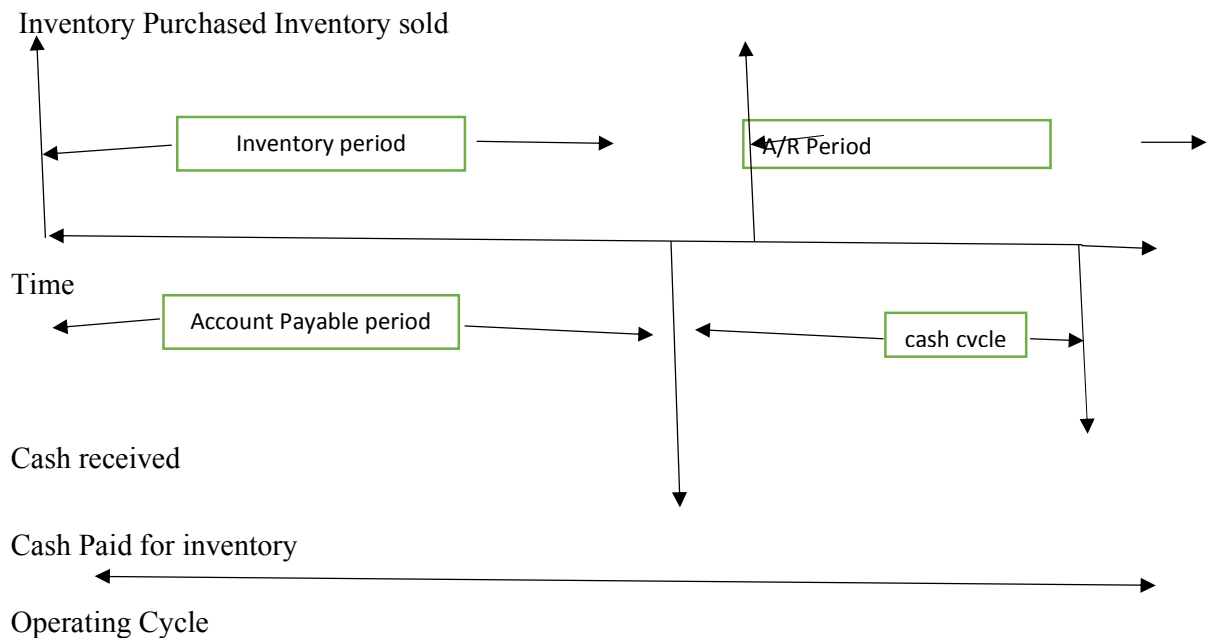
Therefore effective working capital management is very important for either profit making and not for profit making organisation in order to ensure the current assets

covers its current liabilities. Proper management of working capital influences liquidity as inadequate management of the same creates liquidity problems which come by when the company fails to meet its current liabilities

2.8 THE CASH CONVERSION CYCLE

Padachi (2006) defines CCC as the time lag between the expenditure for organisation's purchases and its sales collections. Jordan (2003) argues it is that time between cash disbursement and cash collection. Ross et al (2008) further establishes that CCC outlines the gap between operation cycle and the payment period. It is an important ingredient in determining cash cycle. It detects how lean an organisation is managing its working capital. Zietlow (2005) pointed that the CCC tells the duration which a company takes to transform goods or services provided into cash.

Fig 2.3: The cash conversion cycle



Source: Jordan (2003)

- Cash cycle means operating cycle minus accounts payable period. It is the period from payment for raw materials to receipt of cash from debtors.

- Operating cycle comes from inventory period plus account receivable period. This is the period between acquisition of raw materials on credit and cash collections from accounts receivables.
- The period between the purchases for inventory to when cash is paid for inventory is known as the account payable period.
- The period between inventory purchases to when inventory (finished goods) is sold on credit is called the inventory conversion period.
- The period between the sales of inventory (finished goods) to when cash is collected from debtors is the accounts receivable period.

2.8.1 Impact of cash conversion cycle on liquidity

The entire concept of CCC is related to working capital management. It is used as a complete measure of working capital (Keown et al, 2003). Jordan (2003) outlines that cash conversion cycle (CCC) is made up of three main components which are the receivable collection period, creditors payment period and the inventory conversion period. Therefore a most productive combination of these components need to be effectively monitored in order to ensure organization's liquidity is kept intact as well as the organisational financial performance.

CCC concentrates on the number of days in which funds are tied up in receivables, inventories and payables. It could have a negative relationship with organisation financial position when it tries to shorten its cash conversion cycle period. This happens in that by reducing average age of inventory a firm could experience danger of stock out. When a firm try to reduce its average collection period they could lose their good creditors and by delaying payments organisations reputation could be compromised.

Hutchison et al (2007) highlights that cash conversion cycle (CCC) can either be negative or be positive. Positive CCC refers the period an organization must tie up its working capital in current assets before it receives payment from its clients. On the other hand, negative CCC can be viewed as highly favorable as it is a reflection that the organisation has already received cash from accounts receivables before it has to cover its creditors. Uyar (2009) supports that organizations needs to keep the CCC

days as minimum or preferably in negative to relieve the pressures of cash bottlenecks and liquidity.

A shorter CCC is favourable to an organization as is indicative that the company is able to manage its working capital very properly. It means the company has been able on average to purchase inventory, sell inventory and collect the forthcoming receivable before the corresponding payable from the inventory purchase becomes due. Shortening this period means less amount of cash will be spent. CCC can be shortened by reducing inventory conversion period, the average receivable collection period or by lengthening creditors' payment period (Jahankhani et al, 2008).

Shorter CCC entirely portray greater liquidity, which is a reflection of less need to borrow. This gives an organization greater opportunity to take advantage of price discounts since it can afford cash purchases for raw materials. In contrary, a longer CCC increases a company's cash needs and restrains on the liquidity position of the company.

Schilling (1996) expresses that an increase in CCC have an implication on increasing the minimum liquidity needs. On the contrary a decrease in CCC leads to a corresponding decrease in minimum liquidity requirements.

Laughlin et al (1980) explained that CCC is a useful tool which can be used to measure liquidity management and performance of an organisation.

The cash cycle represent the time the organisation's cash resources are locked up in its operations and plays a significant role in the management of working capital because the longer the cash cycle the more would be the financial resources the company needs to support its operations.

Finance managers need to watch that the cycle does not become too long with the purpose of reducing it as much as possible without impacting on the normal operations of the organisation. One way of achieving this is through management of individual components making up the cycle. This has a bearing on the short term financial resources required by the organisation.

2.9. AVERAGE COLLECTION PERIOD

This show the number of days, on average, it takes an organization to recover its accounts receivables from debtors. It can show the quality of debtors an organisation has as well as the speed of receivable collection. Ageing analysis can establish whether the company is taking longer time than usual or less time comparing with the past. The average collection period should be compared with the organisations credit policy to see how well it is performing (Lynch, 2007).

2.9.1 Impact of debtors average collection period on liquidity

Marsh (2012) postulates that debtors' days are an indication of how good an organisation is at collecting debts from its customers and how much trade credit it allows. The fewer days the better it is to the organisation because it means improved cash flows position. Poor liquidity ratio of a company is mainly caused by poor debt collection.

Laughlin et al (2012) emphasises that an increase in account receivables is indicative of an increase in organizational sales. On contrary, holding receivables for a long time is indicative of cash tied up since cash is received only when receivables are actually paid by debtors.

Ng et al (1999) viewed that a longer debtors' collection period can be seen as positive because it can improve the relationship between the organization and customers to such a point that customers become loyal, hence lead to increase in revenue and cash flows.

Long et al (1993) corresponds with Ng et al (1999) on the relationship between the organisation and its customers in that if an organization offers a liberal credit terms to its customers, this has a tendency of increasing the sales level of the organisation, however he emphasises that granting relaxed credit terms to customers reduces liquidity. Cash remains locked up in debtors while the organisation would require more working capital support

Sheeba (2012) highlighted that shorter collection period reflects that collections from debtors occur quickly thus denotes the quality of debtors is good. Shorter collection period shows that the credit policy of the firm is good and indicates efficient

collection and management of book debts. However a very short collection period may negatively affect sales since sales increases with increase in credit period. Hence, shorter credit period may decrease sales, which means that the company should increase its collection period.

On the other side of the coin, Sheeba (2012) agrees that longer collection period is a reflection of poor management of collections and ineffective credit policy of the organisation. Long average collection period is indicative of a very decontrolled and inefficient credit and collection policy parameters of the organisation.

Bernstein et al (1998) argues that increased collection period is a reflection of poor collection effort, delay in customer payment and customers financial distress which negatively impact on the liquidity of an organisation. This is in line with Sheeba (2012) assertion that longer collection period signifies poor credit policy, collection and management by the organisation.

Deloof (2003) elaborates shorter collection period allows better financial performance to the organisation while Raheman et al (2007) shared the same view with Deloof (2003) that the shorter the collection period, the better is the financial performance of the entity.

Shorter collection period helps to maintain liquidity and reduce tied up cash in debtors. It represents cash received earlier than later and this shows that the sooner the better in terms of value of the money. Cash received today can be put in productive investments that earn returns for the organisation and reduce organisation's need for working capital requirement. Longer collection period would make the company have a greater need for working capital since it takes longer time to get paid yet the activities would need to be financed.

2.10 CREDITORS' PAYMENT PERIOD

Falope et al (2009) defines creditors' payment period as the numbers of days it takes the organisation to pay off its credit purchases.

2.10.1 Impact of creditors' payment period on liquidity

Jones et al (2008) concurs with Falope et al (2009) that creditors' average payment period is a measure of how long it takes the company to cover its accounts payable. According to Jones (2008), the longer the duration a company is able to delay payment without harming creditor relations, the better would be the company's working-capital position.

An organisation has an incentive to lengthen the amount of time it takes to settle its payables, since that frees up and provides cash now. The rationale of settling payables is that it involves the usage of cash, while an increase in payables from one period to the next increases cash.

Sheeba (2012) explains longer payment period implies that the firm gets the advantage of utilizing the money for a particular period of time. However, the same scholar points the increase in the payment period should never cross the limit where the firm's goodwill can be compromised. Exceeding the credit period would result in loss of future business with particular suppliers. On the other side shorter payment period indicates the organisation does not enjoy the benefits of using money since it hold money for a short period of time.

Delaying payments to suppliers gives opportunity for a firm to test the products in terms of quality before final payment. The organisation gets an inexpensive and flexible source of financing. However longer creditor payment period can be very costly when the firm can be offered a discount for early payment.

Laughlin et al (2012) concurs with the above and elaborates that emphasis is given to the duration in which a company is able to access inexpensive financing in the form of credit relationships with suppliers. The longer a company is able to delay its payment (while maintaining supplier relations), the better would be the organisation cash flow position.

Longer creditor's payment period helps to preserve liquidity. It represents cash that should have been given to suppliers but paid later while being used by the organisation productively. Shorter payment period means the organisation pays faster than it supposed to hence put itself in an unfavourable working capital position. More than normal credit period would mean the organisation can get into conflicts over

deferred payment which risks its reputation and more so credit purchases can be denied in the future. It is safe for an organisation to maintain its relationships through proper management of its creditors.

2.11 WORKING CAPITAL FINANCING

Rangarajan (2005) explains that sources of short term credit can be classified into two groups, namely unsecured and secured short term sources. Unsecured sources include trade credit, credit discounts, stretching on trade credit, lines of credit and transaction loans as well as overdrafts. Secured sources involves pledging account receivables and factoring.

2.12 EMPIRICAL EVIDENCE ON THE IMPACT OF WORKING CAPITAL MANAGEMENT ON LIQUIDITY OF ORGANISATIONS.

Empirical research has supported the relevance of working management on liquidity of organisations.

Dong et al (2010) studied the relationship between liquidity and cash conversion cycle in listed firms in Vietnam stock market. The findings revealed that strong negative relationship between cash conversion cycle and liquidity exists. In other words an increase in CCC would reduce the liquidity of the organisation

Garcia et al (2007) also established the effects of working capital management on the financial performance of a sample of small and medium-sized firms. It has been observed that managers can generate more value for their organisation by reducing debtors' payment period, inventories conversion period and the CCC all of which improves cash and revenue generated from the organisation's operations.

Mathura (2010) has examined the influence of WCM components on liquidity in the Nairobi Stock Exchange (NSE). Findings revealed there exist a negative relationship between the accounts collection period and liquidity. However it has been established that a positive relationships exists between the inventory conversion period, average payment period and liquidity.

Singh (2008) discovered the inventory size directly influence working capital management. Singh and Pandey (2010) elaborated that both fixed and current assets are essential as they influence business operations and facilitate the management of working capital which has a bearing on liquidity and revenue. Singh and Pandey (2010) found a significant impact of working capital management on liquidity for Hindalco Industries Limited taking into cognizance of its working capital management components.

Chatterjee (2011) concurs with Singh and Pandey (2010) on the influence of fixed and current assets in an organisation. Both have been seen as importantly have an impact on revenues and liquidity. Increase in working capital tend to improve liquidity while investments in fixed assets can be seen in increase sales which result in increase in current assets.

Wang (2002) in an attempt to discover the relationship between WCM and liquidity used a sample of Japanese and Taiwanese organizations. He discovered that a shorter cash conversion cycle result in better organization's performance in terms of revenue and cash flows.

Melita (2010) tried to establish the impact of working capital management on organizations' performance in emerging markets. It has been tested that WCM results in improved financial position. For this study, organisations listed on the Cyprus Stock Exchange for the period 1998-2007 were used. Results of the study showed that the cash conversion cycle, together with all its major components which are the inventory conversion period, debtors' collection period as well as creditors' payment period have a link with entities' liquidity and revenue.

Shin et al (1998) attempted to examine the relationship which exists between CCC and organisation's liquidity on a study of a sample of listed American firms for the periods 1975–1994. It was found that a strong negative relationship exists between CCC and liquidity. This has resulted in the conclusion that reduction in cash conversion cycle to a reasonable level improves cash flow.

Rafuse (1996) criticized suggestions to improve organisation liquidity by delaying payment to creditors as unproductive. Failure to maintain optimum debtors and creditors levels will be harmful to the business.

From the above empirical literature it has been confirmed in various studies that cash conversion cycle, average debtors collection period, inventory conversion period have a negative relationship with liquidity and revenue generated by an organisation. This has been supported by Mathura (2010), Dong et al (2010), Garcia et al (2007), Wang (2012) and Shin et al (1998).

However average payment period has been discovered from the findings conducted by the same scholars that it has a positive relationship with liquidity and income held by the organisation. Mathura (2010) findings contradicts with the rest on inventory conversion period which he established has a positive relationship with liquidity.

Chatterjee (2010), Singh et al (2011) did not underestimate the role of fixed assets in influencing liquidity. Fixed assets investments and efficiency increases current assets and ultimately overall performance. On the other side current assets facilitate productive use of fixed assets with the end result being improvements in liquidity and revenue generated. Both fixed and current assets in most organisation are necessary and one cannot rely without another in many cases.

2.13 CASH MANAGEMENT

It is the management of cash to ensure it is sufficient to meet company obligations. Cash should neither be too much nor too little. It has been equated to oil required to lubricate overturning wheels without it the business grinds to a standstill (Brigham, 1998).

Motives for Holding Cash

As outlined in the literature of economic theory, John Maynard Keynes categorised the firms demand for cash into the following motives:

a) Transaction motive

This is a motive for holding cash to meet routine cash requirements to finance transaction in the normal course of a business. Organisation needs cash to make payments for purchases, wages, operating expenses among others. Brigham (1998) points out the need arises because cash receipts and cash payments are not perfectly

matched. As a result a firm should maintain cash balance to make the required payment. Transactions balances would be needed to cover irregular outflows and planned acquisitions of fixed assets and inventory. The level of transaction cash held is determined by the industry in which the firm operates (Rangarajan, 2005).

b) Precautionary motive

It is the motive for holding cash as a buffer to meet unexpected contingencies at a future date. This is a buffer stock of liquid assets held to satisfy possible but yet indefinite needs (Rangarajan, 2005). Cash may be needed to meet the unexpected situation such as natural disasters, competition, government policies, unexpected decline in receivable collections, and sharp increase in cost of raw materials as these can heavily impact on the organisation's operations.

c) Speculative motive

Speculative motive is the intention for holding cash to quickly take advantage of profitable occasions usually outside the normal course of business. This is purely speculative in nature. Cash can be held to take advantage of an opportunity to purchase raw material at the reduced price. Organisations can delay the purchase of material in anticipation of declining prices. Cash can be kept to maximize profits by purchasing securities when their prices fall and dispose them in the future when the prices go up. Generally this motive is viewed as the least important of all the firm's preference for liquidity.

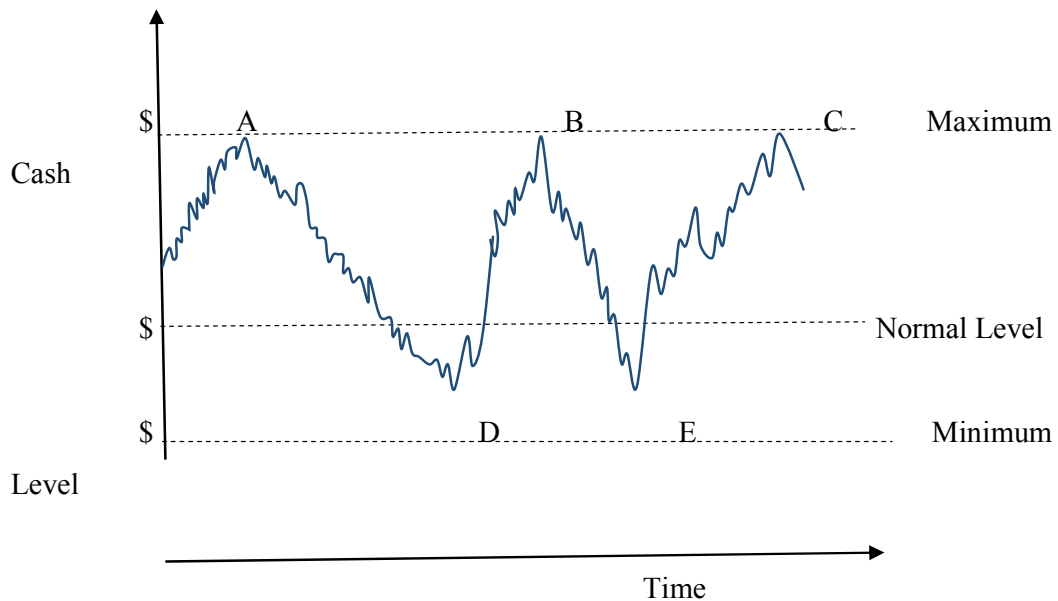
An organisation can manage its cash through:

- Cash planning techniques involving projected cash flow statements.
- Cash Budget/Cash Forecasts which is a forecast of expected cash intake and outlays (Rangarajan, 2005).
- Speedy Cash Collection which is meant to convince or force debtors to settle without any further delay through discounts and regular follow ups (Bringham, 1998)
- Slowing Disbursement through avoiding the early payment of cash.

Cash Management Model: Miller Orr Model

Suggested by Miller Orr, it is a stochastic model which seeks to determine the optimum cash balance level which minimizes the costs of cash. The model assumes cash flows are entirely unpredictable hence the model seeks to set upper limit and lower limit of cash level as a guide to finance managers when conducting cash management in organisations.

Fig2.4: Miller Orr Model



Source: Jordan (2010)

When cash balance reaches upper limit points A, B and C the finance manager on behalf of the organisation need to invest the surplus cash which yield a return to the entity. This is done to bring cash back to the normal level. When cash balance reaches lower limit points D and E, the finance manager would need to find financing means to replenish the cash balance to the normal level to ensure the organisation continues to operate smoothly.

It is worthy to note that when using the model, the preferred minimum cash balance required for precautionary purposes could be determined by past experiences of the organisation.

2.14 RECEIVABLE MANAGEMENT

Proper control and management of receivables is necessary in an organisation. Investments in receivables covers substantial amounts tied up in trade debtors involving certain costs as well as bad debts risk to the organisation. Beside this, maintaining receivable involves several costs which include cost of financing receivables, administrative costs and expenses incurred when finding out the creditworthiness of the debtors, collection costs and defaulting costs.

Effective receivables management involves determining and executing credit policy through:

- Collecting the credit information
- Credit analysis
- Credit Decision
- Formulating and executing Collection Policy which aim to put in place collection procedures to ensure early payment by debtors and bad debts losses are minimized.

2.15 INVENTORY MANAGEMENT

Organisations need to maintain inventory which is made up of finished goods, raw materials and work-in-process. Holding inventory come along with costs which involves storage costs, risk of spoilage and opportunity cost of capital. It is essential to hold inventory since it reduces the chance of stock-out or production stoppage under high demands at any point in time. The basic purpose of holding stock is to safeguard the production process from environmental changes which the organisation faces. Inventory management seeks to minimize the total cost associated with holding inventories by the organisation (Charantimath, 2011).

Inventory related costs

a) Ordering Costs. Are necessary costs which are incurred in the process of placing an order. Examples employees involved in ordering stock.

b) Carrying costs. These are costs involved in financing and keeping the inventory within the firm once the ordered goods are received. These include obsolescence, cost of insurance, and cost of storage space. They are directly influenced by inventory investment and this mean as inventory size increases so does the carrying cost. Carrying costs also involves opportunity costs.

c) Shortage or Stock out Cost. This arises as the organisation keep inventory below minimum required level and can go out of stock compromising flow of production, causing the organisation to make rush purchases which are expensive.

Inventory Control techniques:

This is basically centered on minimising total cost of inventory and it means managing inventory efficiently in order to ensure total cost invested in inventory is minimized and cash is free to be invested in other productive areas.

Economic Order Quantity

This is the most economic quantity of inventory that an organisation can order and hold to ensure its production system and distribution run smoothly. It is the optimum size of inventory that yields maximum benefit at minimum cost. The model is based on the premise that two types of costs associated with inventory. Holding costs increases as orders increase while ordering costs decreases as orders get large.

Mathematically the EOQ formula is as follows:

$$EOQ = \sqrt{2DS/H}$$

Where S – ordering costs of inventory/annum

D – Annual demand of goods/annum

H – Holding costs of stock/period

This approach establishes an optimal inventory level.

Just In Time (J.I.T)

Just in time is a technique used to manage inventories. It seeks to minimize inventory and inventory related costs thereby maximizing revenue. Inventories are ordered and restocked frequently which will be designed specifically to meet immediate production needs.

ABC Analysis

The ABC system is also termed as control by importance and selection. It analyse each inventory item in terms of its cost, frequency of usage, seriousness of being out of inventory, order lead time and other criteria related to the costs of the item. Organisation's inventory consists of valuable and less valuable items which the firm has to pay more time and attention to maintaining the high-valued inventory than the lower-valued inventory.

The ABC classification process is an analysis of a range of items such as inventory into three categories

- a) A-most important in value
- b) B- of average importance in value
- c) C-relatively unimportant in value

The basic concept guiding ABC analysis is to exercise selective control on inventories. It results in organisation's effort concentrated in the areas where they will be most effective.

2.16 CHAPTER SUMMARY

The researcher made use of reviewed literatures established by authors in highlighting the impact of working capital management on liquidity in public hospitals. Chapter three concentrates on research methodology, encompassing research design, sources of data, research instruments, validity and reliability as well as data presentation and analysis.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter describes the various research methods that have been used by the researcher during the study on analysing the impact of working capital management on organisation's liquidity public hospitals. Research methodology focus on description of the research design, sources of data that were used, target population and sample size, sampling techniques. It also shows the research instruments used, data collection procedures as well data presentation and analysis.

3.1 RESEARCH METHODOLOGY

Rajasekar et al (2013) defines research methodology as a systematic way to address a particular problem. It is a science of studying how a research is to be conducted. Polit et al(1999) defines research methodology as the process which follows steps, procedures and strategies for gathering and analysing the data. These methods describe in detail how the study has to be conducted.

3.2 RESEARCH DESIGN

According to Kothari(2004) research design refers to decisions relating to what, where, when, how much and by what means of a research study. This is a conceptual structure within which research is conducted. Polit et al (2001) defines research design as researcher's overall plan for finding solutions pertaining to the research question or to test the hypothesis.

Descriptive research design

According to Burns et al (2003), descriptive research design is designed to provide a picture of a situation as it naturally takes place. It establishes answers to who, what, when, where, and how questions. It is research studies whose main objective is to establish accurate portrayal of the characteristics of persons, situations or groups (Polit et al 1999). According to Burke et al (1989) it is a non- experimental research

design which is employed to observe and measure a variable when little conceptual background is available on specific aspects of the variables under the study.

Justifications of descriptive research design

It allows the researcher be able to collect accurate data and provide a clear picture of the phenomenon under the study therefore enhances the understanding of current practice, gain information and make judgment basing on situation or variables on the ground. However it cannot establish the whys of particular phenomena as it occur.

3.3 SOURCES OF DATA

Polit, et al (1999) defines data as “information obtained during the course of an investigation or study”. The researcher made use of both primary and secondary data. Data collection is a systematic gathering of data for a particular purpose.

Primary Data

According to Aggarwal et al (2009) primary data is one which is gathered by the researcher for own specific purpose for the first time from the beginning to the end. This is data which has been collected from the source of origin. It is also termed first-hand information.

Interviews and questionnaires were used by the researcher to generate primary data.

Justification of primary data

Data interpretation is better enhanced because data is original and unbiased.

Data collection by the researcher is collected with a concrete idea in mind normally to answer a research question and meet certain objectives which are related to the research

Researcher has greater control of the data being collected. The amount of control the researcher has allows determining the type of method to use in collecting the data and duration of data collection exercise, thus enabling the researcher to focus on specific aspects of their research.

Limitations of primary data

Primary data is highly costly and time consuming to acquire or obtain

Primary data produces huge volumes of data some of it would be unnecessary which the researcher would need to go through when analyzing and evaluating the findings.

Secondary Data

Kothari (2004) describes secondary data as one which have already been collected and analyzed by someone else for other purposes other than the problem in hand. Therefore it is termed second-hand data (Aggarwal, 2008). Secondary data can be available in published and unpublished forms.

For purpose of this research, secondary data has been obtained from Health Service Act, Journals, Public Finance Management Act, Chipinge District Hospital Financial Reports and minutes, Health Service Board reports, CDHHealth Services Fund (HSF), Publications of research scholars and government of Zimbabwe publications.

Justification of secondary data

It is easily accessible since it is already available and this saves time and cut costs to acquire by the researcher

It provides clarification of research questions

It facilitates generation of new insights from previous and enhance re-analyzing of data that can also lead to unexpected new discoveries. The researcher can analyze the data and come up with new relevant conclusions or simply verify and confirm previous results

Limitations of Secondary data

Secondary data suffers from data misinterpretation. Secondary data sources may provide vast amount of information, of which quantity is not synonymous of appropriateness.

Secondary data is not specific to research needs as it provides data that has been collected to answer a different research question or objectives and not the research questions in hand.

There is lack of control over the quality of data since it has been gathered by someone else.

3.4 TARGET POPULATION

Bajpai (2011) defines target population as the collection of objects or the whole group of individuals that possess information that the researcher are interested in and of which inference is to be made. Polit et al (1999) defines population as the entire set of individuals or objects that have common characteristics as defined by the sampling criteria established for the study.

The target population for this study comprises 49 employees targeted at Chipinge District Hospital who were drawn from the following sections: 8 in the finance ,6 represents stores and administration, 4 belongs to the human resources,5 were from catering, 6 in the pharmacy,8 were HOD's,7 represents nurses and 5 being district health executives.

In selecting the target population, eligibility criteria have been employed. Eligibility criteria refer to ways which specify the characteristics that individual in the population must possess in order to be part of the research study. In this regard, the researcher selected employees on the basis of those who had a better perceived knowledge and appreciation of working capital management in the public hospital's context.

3.5 SAMPLE

Bajpai (2010) defines a sample as number of elements to be included in the study. It is a subset of the population. The main purpose of a sample is to allow the researchers to conduct the study to individuals from the population to ensure the results of their study can be used to derive conclusions that will apply to the entire population. Burns etal (1998) refer the sample to a subset of the population selected to participate in a research study. In other words a sample defines the selected groups of elements which is drawn from the target population.

The target population of 49 employees has been scaled down into a sample size of 25 made up of members who had a better knowledge and appreciation regarding the subject of hospital working capital management. The percentage sample size makes 51% of the target population which allows the researcher to generate meaningful inferences about the whole group in the study.

Justification of sample size

It would be difficult for the researcher to test all the employees in a given population at Chipinge District Hospital due to financial setbacks and limited time. Therefore a sample size of 25 employees is workable with in terms of limited costs and time and at the same time would allow the researcher to derive conclusion that would generalise the entire population.

The target population and sample size is depicted on the following table

Table 3. 1: Population and Sample size

Department	Population	Sample size	Percentage	Sample technique
District Health Executives	5	3	60%	Stratified random sampling/Purposive sampling
Finance	8	6	75%	Stratified random sampling
Administration and stores	6	3	50%	Stratified random sampling
Catering	5	2	40%	Stratified random/purposive sampling
Pharmacy	6	2	33%	Stratified random / purposive sampling
Human Resources	4	2	50%	Stratified random sampling
HOD's	8	4	50%	Stratified random/Purposive sampling
Nurses	7	3	43%	Convenience sampling

Total	49	25	51%	
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Source: Primary data 2014

3.6 SAMPLING

According to Kumar (2005), sampling refers to the process of selecting a few individuals from a larger group to become the basis for predicting the prevalence of an unknown piece of information, situation or outcome pertaining to a larger group.

The researcher used stratified random sampling, purposive and convenience sampling methods to select individuals for the study.

3.6.1 Stratified random sampling

According to Charantimath (2011), in stratified random sampling, the population is divided into relatively homogenous groups which are termed as “strata.” A specified number of elements are drawn from each strata at random corresponding to the proportion of that stratum in the population as a whole or an equal number of elements from each stratum is drawn and weight is assigned to the results according to the stratum’s proportion of the total population.

Accordingly, the researcher divided employees of the study at Chipinge district hospital into departments (strata) in which they belong or work (finance, stores and administration, pharmacy, catering, human resources, HODs and Nurses). Individuals in the human resources, stores and administration and finance groups or strata were finally selected at random to generate information for the study. Employees in the DHEs, Catering, Pharmacy and HOD’s strata were finally selected by way of purposive sampling because of the perceived knowledge they possess on working capital management.

Justification of stratified random sampling

Stratified sampling ensures a high degree of representativeness of all the groups in the population. Random selection of individuals from a strata improves objectivity thus reduces bias. The larger population is broken down into smaller manageable sample size.

Limitations of stratified random sampling

Stratified random sampling is time consuming and tedious.

3.7.2 Purposive sampling

It is also termed authoritative or judgmental sampling. Purposive sampling is carried out where the researcher employs own professional judgment instead of randomness to select respondents to participate in the study. These respondents are the ones whom the researcher considers to be particularly knowledgeable about the research subject under study who would be selected to provide data (Rea et al, 2014). Specifically purposive sampling involves conscious selection by the researcher of certain participants to include in the study.

Judgmental sampling design is usually used when a limited number of individuals possess the particular trait of interest. It allows obtaining information from a very specific group of people in a viable manner.

The researcher used purposive sampling to select and gather data from DHEs, Catering, Pharmacy and HODs. The rationale for selecting DHEs and HODs purposively was that these categories, by virtue of their positions are members of the Central Buying Unit. They also influence decision making and participation in numerous meetings related to working capital management. They have perceived better understanding and appreciation of working capital management in public hospitals. Purposive sampling has also been used to select individuals from the catering and pharmacy sections due to them having perceived knowledge and appreciation of the need for effective working capital management in the hospital.

Limitations of Purposive sampling

The method lacks reliability. This is because there is no way to evaluate the reliability of the expert or an individual who can better provide required information.

It is usually biased since no randomization is used in obtaining the sample but depending on the judgement of the researcher in selecting whom he thought can provide useful data.

3.8.3 Convenience sampling

Convenience sampling is a non-probability sampling technique in which subjects are selected on the basis of their convenience, accessibility and proximity to the researcher. Due to large population involved in research it is difficult to consider every individual. In convenience sampling, participants are included in the study because they happen to be in the right place at the right time to the researcher.

The researcher makes use of this technique to select nurses who responded to self-administered questionnaires at the time of data collection. A sample of three nurses out of the seven in the targeted population has been selected from those who were most readily available to complete questionnaires at the time of data collection by the researcher at the hospital.

Justifications of Convenience sampling

It is fast, inexpensive, and easy since the subjects or individuals are readily available.

Allows the researcher to obtain basic data and trends regarding his study without the complication of randomized sample

Limitations

Convenience sampling is associated with sampling bias and the sample is not representative of the entire population

Generalization of results is difficult as well as inference making about the entire population. This is because the sample is not representative of the population therefore the results of the study cannot speak for the entire population resulting to a low external validity.

3.9 RESEARCH INSTRUMENTS

These are ways, techniques or tools which are used to gather data from a target population or sample.

The researcher makes use of self-administered questionnaires and structured interviews.

Interviews

Corfield (2009) defines an interview as a face-to-face meeting for the purposes of consultation. It is a discussion between two or more people for one reason or another.

Ng et al (2013) outlines two main types of interviews. Unstructured interviews make use of broad and open-ended questions which are meant to surface issues. Participants are given chance to speak freely and without interruption by the interviewer. It can use few pre-formulated questions. Structured interviews have predetermined list of questions. It uses an interview guide. Semi structured interviews combines the use of both open ended and closed ended questions. It offers greater flexibility. It uses an interview protocol that is developed around a list of topics without fixed wording or ordering of questions.

Structured interviews were used by the researcher to solicit data from the Accountant, Administrator and the District Medial Officer.

Justifications of structured interviews

Interpersonal skills can be used to facilitate co-operation and elicit more information

It yields higher response rate than questionnaires which leads to a complete description of the phenomenon under study.

Unclear responses can be addressed through questioning for further probing to get explanations.

This is a flexible technique that allows the researcher to explore greater depth of meaning that cannot be obtained with other techniques

Limitations of structured interviews

Requires more time to conduct

Usually the sample size is limited due to high cost and more time required.

It is subject to bias hence compromising validity or trustworthiness of the findings and inconsistency in data collection from one subject to another.

Ordering and interpretation is made difficult due to vast amounts of data collected.

Face to face interviews

Face to face interviews were conducted to gather information from the District Medical Officer, District Health Administrator and District Accountant at CDH.

Justification of face to face interviews

Face to face interviews allows longer interviews to be tolerated due to the presence of the interviewer

Extensive probing could be used to collect detailed information by the researcher

There is greater certainty about who answered the questions

Limitations of a face to face interview

Face to face interviews suffers from interviewer bias and misinterpretation of non-verbal cues leads to biased data.

It is time consuming and costly to conduct

There is lack of anonymity such that some respondent could not feel comfortable to provide data

Questionnaires

A questionnaire is a set of questions with fixed wording and sequence of presentation. It gives a more or less precise indications of how each question has to be answered. They are categorised into open ended and closed ended questionnaires. Open ended questionnaires have response categories which are not pre specified hence allow the respondents to freely express their own views as opposed to selecting between already established answers. On the other hand side closed ended questionnaires have pre - written response categories.

The self-completion questionnaires included both open ended and closed ended in nature in order to allow respondents to raise new issues.

Self-completion questionnaires were administered to the chosen individuals in the administration and stores, finance, human resources, catering, pharmacy, HOD's, and nurses sections.

Justifications of self-administered questionnaires

The absence of an interviewer provides greater anonymity to sensitive issues for the respondent. This increases the reliability of the responses.

There is absence of interviewer variability. Interviewer cannot probe questions which occurs when same question can be asked in a different way and order

They are convenient for respondents since respondents can fill the self-completion questionnaire during own spare time.

Limitations of self-completion questionnaires

Questions need to be short and simple since there is no opportunity to probe or clarify misunderstandings.

There is limited control over the one who fills the questionnaire. It is impossible to establish whether the right individuals are the one who have completed the questionnaire.

3.10 RESEARCH PROCEDURES

Appointments to conduct interviews were done through the telephone, informing the District Medical Officer, District Health Administrator and the District Accountant of the proposed dates of conducting personal interviews in their offices.

Questionnaires were hand delivered. Brief notes accompanied the questionnaires instructing on how respondents should attempt the questions.

3.11 VALIDITY

Byram, et al (2013) defines validity as “the extent to which the test is testing what it claims to test.” It is divided into external and internal validity. Krishnaswamy (2010) establishes that internal validity of a research instrument is its ability to measure what it aims to measure. External validity is about generalizability. Validity was average given that the employees used were from within the same organisation. To improve on validity the researcher issued out of pre-test questionnaires to check on how possible response and participation was encouraged by the researcher in trying to keep the dropout rate as low as possible.

3.12 RELIABILITY

Krishnaswamy (2010) defines reliability as the extent to which a test or instrument measures what is actually intended to be measured. Reliability focuses on the accuracy and precision of a measurement procedure. Barson et al (1991) concurs with the above that reliability means the degree of consistency or accuracy with which an instrument measures the attribute it is designed to measure. If a study and its results are reliable, it implies similar results would be derived even if the study were to be carried out by other different researchers using similar method.

The researcher tried to improve reliability through the use of uniform interviewing and questioning for a related group. The researcher explained all the information that was required to enhance high response rate and accuracy. Reliability rate ranges between 60-80% (Rudd, 2005). A pretest of employees who are not members of the target population of the research but with similar characteristics to the study sample had been conducted to determine the clarity of the items and consistency of the responses.

3.13 ETHICAL CONSIDERATIONS

The researcher morally obliged to strictly adhere to the rights of the informants who were in the best interest to provide knowledge on working capital management. The researcher found it worthy to establish trust with the informants and respect of the informants' rights to confidentiality, anonymity and privacy as well as to withdraw from the study at any time.

3.14 PRETESTING

Pre testing is a final step in designing a questionnaire or interview schedule. A small number of participants are tested prior to conducting actual research. The more the ways used to pretest the safer will be in assuming the accuracy of results. Friends or colleagues were used to pretest by the researcher.

Other employees who were not part of the actual sample had been used to pretest self-completed questionnaires. They were excluded from the final sample as their experience of seeing the earlier questionnaire might make them answer the real thing differently. The researcher distributed 13 self-completion questionnaires, 5 to the friends in the class of the researcher and 8 to the other employees at CDH

with the purpose to test what to expect from the real targeted population of the study and 10 were returned. All questionnaires were well answered.

The researcher could determine how long it takes to complete the questionnaire and endeavor to identify and eliminate items that will not establish usable data

3.15 DATA PRESENTATION AND ANALYSIS

Data Presentation

Data will be presented by the researcher using tables where necessary giving a brief description of the data presented. This tool allows easier and logical interpretation of data presentation.

Data analysis

Deductive analysis and regression models will be employed for data analysis by the researcher. Deductive approach uses theory to explain the patterns observed and derive conclusion from the assumptions of the theory. Research is derived from theory which allows formulating hypothesis that can be tested. Deduction can produce more precise and direct answers if done correctly. It can generate a true conclusion when the argument is valid and premises are true.

3.16 CHAPTER SUMMARY

This chapter discussed the research methodology used by the researcher in the study. Under research design, descriptive research designs were dealt with. Primary and secondary sources of data were discussed. The chapter discussed stratified random sampling, convenience and purposive sampling techniques. Research instruments tools involving questionnaires and interviews were discussed. Tables will be used for data presentation and deductive and simple linear regression analysis will also be employed. Data presentation and analysis will be the main focus for chapter four.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 INTRODUCTION

This chapter presents, analyses and discusses the research findings obtained on analysing the impact of working capital management on liquidity by Chipinge District Hospital. Data obtained is presented in the form of tables.

4.1 RESPONSE ANALYSIS

4.1.1 QUESTIONNAIRE RESPONSE ANALYSIS

Of the 22 questionnaires sent out to the respondents at Chipinge District Hospital to gather data, 19 were returned and 3 were not returned, which represents 86% response rate.

4.1.2 INTERVIEW RESPONSE ANALYSIS

Interviews with the District Health Administrator, District Accountant and the District Medical Officer were quiet successful. A 100% response rate was achieved from the interviews. All officials were present in their respective offices at the time of conducting the interviews by the researcher.

The following table summarises the questionnaire response rate:

Table 4.1: Response rate through questionnaires

CATEGORY	SAMPLE	RESPOND ENTS	PERCENTAGE
Finance	6	4	66.7%
Administration/ Stores	3	3	100%
Human resources	2	2	100%
HOD's	4	3	75%
Nurses	3	3	100%

Pharmacy	2	2	100%
Catering	2	2	100%
Total	22	19	86%

Source: Data Survey 2014

The research failed to get a 100% response rate from the self-completed questionnaires as two finance personnel and one HOD member did not return the questionnaires. This gave a variance of 14 %. The response rate of 86% achieved facilitates generalization and ensures conclusions are drawn based on the information that has been provided by the respondents. This is consistent with Robertson (2002) who established that a response rate of 30% and above is adequate to promote the analysis of data results together with drawing conclusions without tempering with the validity of research results. Therefore the response rate of the study was justifiable.

4.2 Background information on respondents

4.2.1 Academic qualifications

The research sought to establish the academic qualifications of respondents. Knowledge of respondents' qualifications influence the quality of decision making relating to working capital management and also indicate the capabilities of respondents to answer the questionnaires in their own best knowledge.

Table 4.2: Distribution of respondents by qualifications

CATEGORY	ACADEMIC QUALIFICATIONS	FREQUENCY
District Health Executive	Degree	2
	Masters	1
Finance	'O' Level	3
	Higher National Diploma	1
	Degree	0
Administration/Stores	'O' Level	2
	HND	1
Human Resources	HND	1
	Degree	1

HOD's	HND	3
Nurses	HND	3
Pharmacy	HND	2
Catering	'O'Level	1
	HND	1
Total		22

Source: Data survey 2014

The above table depicts that 22 out of 22 respondents of both self-completion questionnaires and interviews completed "O" level. Of the 22, 6 respondents ended at 'O' Level only. Moreover, the table depicts that 4 of all respondents attended university education. The table also revealed that 12 of the total respondents are holders of Higher National Diplomas only. These findings assured the researcher to perceive that the respondents answered the questions out of their own understanding and knowledge and therefore could be generalized.

4.2.2 Distribution of work experience of respondents for self-completed questionnaires

The research sought to explore the working experience of the various respondents. This is essential as it has a bearing on the depth and quality of information availed by the respondents who would be familiar with the systems relating to working capital management.

Table 4. 3: Work experience of respondents for self-completed questionnaires

Work experience	Frequency	Percentage
0-5 years	7	36.8
5-10 years	9	47.4
10-15 years	3	15.8
Total	19	100

Source: Data survey 2014

The above table gives the distribution work experiences of the respondents of self-completed questionnaires who gave information to the researcher. Seven respondents (36.8%) represented employees who had between 0-5 years of work experience.

Majority of respondents who make up 9(47.4%)of the total had 5-10 years of experience while 3(15.8%) had 10-15 years of work experience. This information revealed that a larger number of respondents(47.4%) are experienced and had spent many years in the organisation, therefore the researcher assumed rich and reliable information could be provided relating to working capital management in the hospital.

4.3 Significant indicators of working capital management

The research sought to explore the indicators of working capital management. This has been done to find out the important variables to be monitored which influences the levels and sustainability of liquidity in the organisation. The following results have been obtained from respondents(N=12)

Table 4.4: Responses on indicators of working capital management.

Indicators	Strongly agree	Agree	Uncertain	disagree	Strongly disagree
Inventory conversion period	4	5	0	2	1
Average creditors payment period	5	4	0	2	1
Average debtors collection period	4	4	0	1	3
Cash conversion cycle	5	6	1	0	0

Source: Data survey 2014

On inventory conversion period, 4(33.3%) of the total respondents strongly agreed, 5(41.7%) agreed, a further 2(16.7%) disagreed and only 1(8.3%) strongly disagreed to inventory conversion period as a significant indicator or having an impact on working capital management. None of the respondents were uncertain.

5(41.7%) of the total respondents strongly agreed to the notion that creditors payment period is a significant indicator, 4(33.3%) agreed and a further 2(16.7%) disagreed while 1(8.3%) strongly disagreed. None of the respondents were uncertain.

In terms of debtors collection period, 4(33.3%) of the total respondents strongly agreed, another 4(33.3%) agreed, only 1(8.3%) disagreed and 3(25%) of the total respondents strongly disagreed as to debtors collection period as an indicator of working capital management.

5(41.7%) of the total respondents strongly agreed that cash conversion cycle is an important indicator, 6(50%) agreed while only 1(8.3%) of the total respondents were not sure. None of the respondents disagreed nor strongly disagreed.

In the final analysis, majority of respondents agreed that debtor's collection period (66.6%), creditor's payment period (75%), inventory conversion period (75%) and cash conversion cycle (91.7%) significantly influence working capital management in organisations. These results have been supported by Melita (2010) and pointed that inventory conversion period, creditors payable period, debtors collection period and cash conversion period are major working capital management components which inform liquidity.

4.4 Hospital's average debtors' collection period

The research sought to establish the average debtors' collection period in order to find out how long the organisation is allowing its cash to remain in the hands of its debtors. The following responses were obtained from respondents (N=12)

Table 4.5: Responses on the average debtors' collection period

Average debtors collection period	Frequency	Percentage
one week	0	0
Fortnight	0	0
one month	0	0
Three months	12	100%
Total	12	100%

Source: Data survey 2014

The above findings shows that 100% of the respondents agreed that the debtors' collection for the hospital is three months. Therefore the time it takes an organisation on average to collect its receivables is longer which has an unfavourable impact on its cash flows as it represents cash tied up in debtors which can also increase the risk of bad debts. This has been supported by Laughlin et al (2012) that longer collections period in an organisation results in cash tied up in debtors.

4.5: Relationship between working capital management strategies and liquidity

H0: there is no relationship between working capital management strategies and liquidity.

H1: there is a relationship between working capital management strategies and liquidity.

Table 4.6.1 Observed frequency table

Working capital management strategies	Impacts on liquidity			
	Low	Medium	High	Total
Improved credit policy and collection procedures	2	4	13	19
Negotiate for better credit terms with suppliers	3	9	7	19
Setting realistic cash forecasts	1	7	11	19
Total	6	20	31	57

Calculation of Expected values= $\frac{(\text{Row Total} \times \text{Column Total})}{\text{Grant Total}}$

Grant Total

Table 4.6.2 Expected frequency table

Working capital management strategies	Low	Medium	High	Total
	Improved credit policy and collection procedures	2	6,7	10.3
Negotiate for better credit terms with suppliers	2	6.7	10.3	19
Setting realistic cash forecasts	2	6.7	10.3	19
Total	6	20	31	57

Table 4.6.3 Chi-square

Working capital strategy	Liquidity impact	Observed	Expected	$\frac{(O-E)^2}{E}$
Improved credit analysis and collection	Low	2	2	0
	Medium	4	6.7	1.1
	High	13	10.3	0.7
Negotiate better credit terms	Low	3	2	0.5
	Medium	9	6.7	0.8
	High	7	10.3	1.1
Setting realistic budgets	Low	1	2	0.5
	Medium	7	6.7	0.01
	High	11	10.3	0.05
			X^2	4.76

Establishing degree of freedom

$$df=(r-1) (c-1)$$

$$df= (3-1) (3-1)$$

$$df=4$$

Level of significance =5%

Accept H0 if $\chi^2_{Cal} \leq \chi^2_{table}$

Reject H0 if $\chi^2_{Cal} > \chi^2_{table}$

Therefore $\chi^2_{Cal}=4.76$ and $\chi^2_{table}=2.776$

The findings above revealed that there is a relationship between working capital management strategies and liquidity. Liquidity is dependent on working capital management strategies and the results means the null hypothesis is rejected and the alternate hypothesis is accepted. According to Rangarajan (2005), working capital strategies such as the cash flow forecasts, speeding collections through efficient credit collection procedures and delaying disbursement through negotiations with suppliers lead to improved liquidity.

4.6 Impact of average debtors' collection period on liquidity

The research sought to examine the impact of average collection period on organisation's liquidity. Average debtors' collection period has been regressed in order to find out if it correlates to company liquidity.

Table 4.7: Regression data average collection period and liquidity

Period	Collection period in days(x)	Average monthly cash flows in US\$00(y)	x^2	y^2 (us\$00)	xy(us\$00)
2011	30	120	900	14400	3600
2012	60	95	3600	9025	5700
2013	90	65	8100	4225	5850
2014	120	32	14400	1024	3840
Summation	300	312	27000	28674	18990

Regression analysis

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

$$r = \frac{4(18990) - 300(312)}{\sqrt{[4(27000) - (300)^2][4(28674) - (312)^2]}}$$

$$r = -0.99$$

Where

n is the sample size

x is the independent variable (collection period in days)

y is the value for dependent variable (average monthly cash flows)

r is the correlation coefficient

The findings using the Pearson's correlation coefficient, gives the value of r as equal to -0, 99. This indicates there is a strong negative relationship between collection period and cash flows of an organisation. This reflects that an increase in the collection period creates a reduction in cash flows. Therefore an increase in cash flows would be realized through reducing collection period. The results are consistent with research finding by Garcia et al (2007) where it was also revealed a negative correlation between debtors' collection period and cash flows.

Coefficient of determination

$r^2 = 0.996$. This means that 99.6% in cash flows is attributed to the collection period and 0.4% of the remaining cash flows is a result of other factors which are not related with the collection period.

4.7 Hospital's average creditors' payment period

The research sought to establish the length in time it takes the organisation to meet its short term obligations in order to ensure an optimum balance of cash flow and relations with creditors are maintained. The following represents results obtained from respondents (N=12).

Table 4.8 Creditors payment period

Average creditors payment period	Frequency	Percentage
Two weeks	0	0
One month	12	100%
Three months	0	0
Above three months	0	0
Total	12	100%

Source: Data survey 2014

The above table indicates that the organisations is taking one month to settle its creditors. The period is relatively shorter which implies that the organisation does not have time to hold payables for a long time and stifles productive short term investments. This is consistent with Sheeba (2012) who outlined that shorter payment period means the company cannot productively utilize the cash it owes for a longer time.

4.8 Impact of average creditors' payment period on liquidity

The research sought to examine if average creditors' payment period is correlated to organisation's liquidity in order to unravel perceived causes to the liquidity challenges being faced by the organisation.

Table 4.9 : Regression data on the effect of average payment period and liquidity

Period	Payment period in days(x)	Average monthly cash flows in US\$00(y)	x^2	$y^2(\text{us\$00})$	$xy(\text{us\$00})$
2011	30	40	900	1600	1200
2012	60	75	3600	5625	4500
2013	90	108	8100	11664	9720
2014	120	137	14400	18769	16440

Summation	300	360	27000	37658	31860
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Regression analysis

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

$$r = \frac{4(18990) - 300(360)}{\sqrt{[4(27000) - (300)^2][4(37658) - (360)^2]}}$$

$$r = 0.999$$

Where

n is the sample size

x is the value of the independent variable(collection period)

y is the value for dependent variable(Average monthly cash flows)

r is the correlation coefficient

From the findings using the Pearson's correlation coefficient, the value of r is 0, 99. This implies there is a strong positive relationship between creditors' payment period and cash flows of the organisation. This implies an increase in creditors' payment period lead to an increase in liquidity, ceteris paribus. Therefore an increase in payment period is significant for liquidity improvement. Similar findings were also obtained by Mathura 2010) in which a strong positive relationship of payment collection period and liquidity has been found.

Coefficient of determination

$r^2 = 0.998$. This means that 99.8% of the total variation in cash flows can be attributed to the payment period variable. Only 0.2% of the cash flows is a result of other variables which are not related to the credit period.

4.9 Impact of cash conversion cycle on liquidity

The research sought to examine the relationship between the cash conversion cycle and company liquidity in order to find out if the organisation's cash cycle has a cause over the liquidity challenges being faced by the organisation.

Table 4.10 : Regression data on cash conversion period and liquidity

Period	Cash Conversion period in days(x)	Average monthly cash flows in US\$00(y)	x ²	y ² (US\$00)	xy(US\$00)
2011	30	181	900	32761	5430
2012	60	142	3600	20164	8520
2013	90	98	8100	9604	8820
2014	120	44	14400	1936	5280
Summation	300	360	27000	64465	28050

Regression analysis

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

$$r = \frac{4(18990) - 300(465)}{\sqrt{[4(27000) - (300)^2][4(64465) - (465)^2]}}$$

$$r = -0.997$$

Where

n is the sample size

x is the value of the independent variable(collection period)

y is the value for dependent variable(Average monthly cash flows)

r is the correlation coefficient

Using the Pearson's correlation coefficient, the value of r is- 0, 99. This implies there is a strong negative relationship between the cash conversion cycle and the liquidity position of the organisation. The implication is an increase in the cash conversion cycle leads to a decrease in cash flows, holding all things constant. In this regard shortening the cash conversion cycle would lead to an increase in liquidity. Dong et al (2010) also analysed the same and discovered a similar strong negative relationship

between cash conversion cycle and liquidity. Shin et al (1998) concurs with these results where by it has been established that a strong negative relationship exists between cash conversion cycle and liquidity.

Coefficient of determination

$r^2 = 0.994$. This means that 99% of the total variation in liquidity (cash flows) is attributed to cash conversion period and the other 1% of cash flows is a result of other variables which are not correlated with cash conversion cycle.

4.10 Hospital’s Cash management models, policies and techniques

The research sought to establish the knowledge of respondents on the use and application of cash and liquidity management models, policies and techniques since they contribute towards cost savings which preserves liquidity (N=12).

Table 4.11: Responses on the knowledge of cash management models, policies and techniques.

	Very good	Good	Fair	Poor	Total
Cash models					
BAT	0	2	5	5	12
Miller-Orr Model	0	5	3	4	12
Cash budget	3	3	2	4	12
Zero balance account	0	1	6	5	12

Source: Data survey 2014

Table 4.9 indicates that 5(41.7%) of the respondents lack knowledge of the Baumol model, 5(41.7%) of the respondents have a fair and 2(16.7) have good knowledge of the model while none of the respondents have a very good knowledge.

Of the total respondents, 3(25%) have a fair knowledge of the Miller Orr Model, 5(41.7%) have good knowledge of the model while 4(33.3)) have poor knowledge and use of the model.

3(25%) of the respondents have a very good knowledge of cash budgets while 3(25%) have a good knowledge rating and 2(16.7%) have fair knowledge while another 4(33.3%) do not have proper knowledge and use of the cash budget.

6(50%) represents respondents with a fair knowledge rating and 1(8.3%) represents the good knowledge rating while 5(41.7%) have poor knowledge of the zero balance account.

Therefore findings showed respondents knowledge and use of cash management models and techniques is generally poor. This might imply poor cash management being practiced at Chipinge District Hospital which could be perceived to be negatively impacting on effective working capital management and liquidity.

4.11 Hospital’s supplier selection criterion

The research sought to explore the factors which influence supplier selection for the hospital and below are responses obtained from respondents (N=7)

Table 4.12: Responses on the supplier selection criteria

Selection criteria	Frequency	Percentage
Costs and discounts	1	14.2%
Random	3	42.9%
Payment terms	3	42.9%
Total	7	100%

Source: Data survey 2014

The table indicates that 1(14.2%)of the total respondents choose suppliers basing on costs and discounts while another (42.9%) of the total respondents use costs and discount as the basis for choosing between suppliers.3(42.9%) of the respondents expressed the use of random selection.

In aggregate, 42.9% of the total respondents agreed that the hospital frequently adopts random selection as basis for supplier selection. Random selection means the organisation has no choice to consider cheaper suppliers which can be expensive and costly hence more cash is needed to support its purchases at higher costs.

4.12 Inventory control techniques

The research sought to establish the ratings of knowledge on use and applicability of respondents on inventory techniques, policies and models. The following responses have been generated from respondents (N=7).

Table 4.13: Responses on knowledge of inventory control techniques, policies and models.

Techniques	Very good	Good	fair	Poor
JIT	0	2	2	3
EOQ	1	2	2	2
ABC	1	3	2	1
Stock Levels	1	1	4	1

Source: Data survey 2014

Table 4.11 above indicates that the knowledge and applicability of just in time system is evenly distributed at 2(28.5%) for fair and good ratings. 3(42.9%) of the respondents pointed that knowledge on use is poor.

Knowledge rating of the use and application of EOQ is very good with 1(14.3%) out of the total respondents with the remainders shared evenly between good, fair and poor.

1(14.3%) out of the total respondents has a very good knowledge on the use of ABC approach, while 3(42.9%) showed good knowledge of the approach while the 2(28.5%) represents good rating and another 1(14.3) showed poor knowledge on use of the ABC technique.

On stock levels, there is an even distribution of 1(14.3%) of total respondents for very good, good and poor ratings while 4(57.1) represents fair ratings.

Findings revealed that majority of the respondents have generally fair knowledge on the use and applicability of inventory control techniques. Effective management of inventory reduce inventory related costs through the use of the appropriate inventory control techniques.

4.13 Sources of short term finance

The research seeks to establish the common sources of short term financing being used by the hospital and results are presented as follows (N=19)

Table 4.14: Responses on short term sources of financing in use.

	strongly agree	Agree	Uncertain	Disagree	strongly disagree
Short term sources					
Overdrafts	3	5	3	3	5
trade credits	9	8	2	0	0
debt factoring	0	2	4	7	6
Stretching payables	7	12	0	0	0

Source: Data survey 2014

3(15.7%) of the total respondents strongly agreed the hospital use bank overdrafts as a common working capital financing option, 5(26.3%)of the respondents agreed and 3(15.8%)% were not sure.3(15.8%) disagreed while5(26.3%)strongly disagreed.

9(47.4%) strongly agreed trade credits is a common source of short term finance used by the hospital and a further 8(42.1%) agreed as well as 2(10.5%) of the respondents were uncertain. None disagreed nor strongly disagreed.

In regard to the use of debt factoring, only 2(11%) agreed, 4(21%) of the respondents were not sure, 7(37%) disagreed while 6(31%) strongly disagreed.

7(36.8%) of the total respondents strongly agreed that stretching of payables or deferral payment as is used as a short term finance and majority of 12(63.2%) agreed.

Generally findings obtained from respondents indicates hospital's main source of short term finance comes from stretching of payables and trade credits. Sources of short term financing have a bearing on the working capital management of an entity as each sources carries with it costs hence the organisation would need to take on board a short term source which offers lowest costs at maximum benefit in order to preserve and maintain liquidity.

4.14 Possible causes of liquidity pressures

The research sought to explore possible causes of liquidity problems confronting the hospital and the following responses were given (N=12)

Table 4.15: Responses on possible causes of liquidity pressures

Causes	strongly agree	Agree	Uncertain	disagree	strongly disagree
Limited government grants	5	2	1	4	0
Late payments by group debtors such as social welfare and medical aid societies	8	4	0	0	0
Lack of effective credit analysis and collection procedures	3	9	0	0	0
Fluctuating revenue collections	6	6	0	0	0

Source: Data survey 2014

5 out of 12 respondents strongly agreed that limited and inconsistent government grants is accelerating liquidity pressures, further 2 agreed, only 1 were uncertain and 4 disagreed.

8 out of the total of 12 respondents strongly agreed late payments by medical aid societies, social welfare and other group debtors as worsening liquidity pressures while a further 4 agreed.

3 out of 12 of the total respondents strongly agreed to lack of effective credit analysis and collection procedures while 9 out of 12 of the respondents agreed.

Fluctuating revenue collections from patients has been strongly agreed by 6(50%) of the respondents while another 6(50%) agreed.

Generally, findings revealed that fluctuations of revenue collections, late payments by group debtors, poor credit analysis and collection procedures and limited grants from the government are major factors attributed to liquidity pressures at Chipinge District Hospital. The same reasons have also been suggested by the three officials who responded to the interviews.

4.15 Possible solutions to effective working capital management

The research sought to suggest other solutions to curb liquidity management problems and the following solutions have been obtained (N=19).

Table 4.16: Responses on possible solutions to enhance effective working capital management.

Possible solutions	strongly agree	Agree	Uncertain	disagree	strongly disagree
Improvement in credit analysis and collection procedures	10	9	0	0	0
Establish workable and strictly adhered budget	9	10	0	0	0
Proper inventory planning and control techniques	7	10	2	0	0

Negotiate favourable payment terms with suppliers and creditors	5	7	3	2	2
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Source: Data survey 2014

In order to generate possible solutions to working capital management challenges, 10 out of 19 strongly agree to improvement in credit analysis and collection procedures and 9 out of 19 agreed.

9 out of 19 respondents strongly agreed the hospital can establish a workable and strictly adhered budget as recommendations to working capital management problems and a further 10 of respondents agreed on the same.

7 out of 19 of the respondents strongly agreed to the use of proper inventory planning and control techniques as a solution to working capital management while 10 of the total respondents agreed. Two of the respondents were uncertain.

Out of 19 respondents, 5 strongly agreed that negotiations with suppliers for favourable credit terms as recommendation while 7 agreed; only 3 of the respondents were uncertain. Two disagreed and the other 2 strongly disagreed.

Findings revealed that respondents agreed to the creation of a workable and strictly adhered budget, improvement in credit analysis and collections procedures, use of proper inventory planning and controlling techniques as well as negotiations for better credit terms with creditors. Responses generated from the interviews suggested these recommendations as can be used to enhance better working capital management position in the hospital. These are consistent with Charantimath (2011) as solutions that can be employed to enhance effective management of cash, inventory, account receivables and trade payables.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

The chapter provides a brief summary of the research from chapter one to chapter five. This chapter also covers the major conclusions that were derived from the research findings as well as the researcher's recommendations which were drawn from the findings and backed by literature.

5.1 SUMMARY OF FINDINGS

The summary of the findings of the research study are discussed under this section as per the objective areas.

- i) It had been revealed that bulky of hospital staff are not adequately qualified. Respondents showed that only 18% have university qualifications with the remainder being diploma and ordinary level holders.
- ii) The hospital is largely staffed with less experienced personnel. Results of the respondents indicated that 84% did not exceed 10 years work experience in that particular setting.
- iii) The study established that cash conversion cycle, debtors' collection period, payables payment period and inventory conversion period significantly impact on working capital management in public hospital, notably Chipinge District Hospital
- iv) Liquidity is dependent on effective working capital management.

- v) Debtors' collection period is relatively longer which is at three months. This got supported by 100% of the respondents.
- vi) The research revealed creditors' payment period for the hospital is relatively shorter which is one month. This has been confirmed by 100% of the respondents.
- vii) Average debtors collection period is negatively correlated with liquidity. These results have been indicated by a -0.998 correlation coefficient.
- viii) There is a strong positive relationship between average creditors' payment period and liquidity.
- ix) There is a strong negative correlation between cash conversion cycle and liquidity. These results have been indicated by a -0.997 correlation coefficient.
- x) Generally findings showed that the hospital is relying more on stretching of trade payables, and trade credits as short term means of financing its operations.
- xi) Knowledge and use of cash management models, techniques and policies is generally poor.
- xii) Supplier selection is generally done through random selection and payment terms. 42.9% agreed on random selection while another 42.9% agreed on payment terms.
- xiii) Knowledge on use and applicability of inventory control techniques, policies and models is fair.

- xiv) Revenue collection fluctuations, late group debtors' payments, poor credit analysis and limited government grants are other reasons for increased liquidity crisis. Besides responses generated from questionnaire respondents, 100% response from interviews came up with these reasons

5.2 CONCLUSIONS

Having come to an end of the research project, it can now be concluded that organisation's liquidity is influenced by effective working capital management.

- i) The hospital is taking longer timeframe to get all its cash from debtors. This could be a result of lack of well-defined, understood and practiced credit policy in the organisation. Therefore cash flows decrease with an increase in collection period.
- ii) Shorter payment period is reducing hospital cash flows as it has no time to utilize the money for a long time. This is because creditors' payment period has a strong positive relationship with the cash flows as obtained by the correlation coefficient of the regression analysis. This reflects that the organisation is failing to negotiate for favourable credit terms with its creditors or suppliers are no longer willing to offer the hospitals relaxed credit terms due to bad reputation.
- iii) Hospital's longer cash conversion cycle is a result of longer time being taken to get money from debtors against shorter time required to make its credit payments. As a result, more financial resources are needed to support organisation's operations. This has been confirmed by a strong negative correlation cash conversion cycle and liquidity
- iv) The inventory management system is not effective given that the employees are not adequately knowledgeable of the use of different inventory systems as tools to enhance a decline in inventory related costs.

- v) Cash management techniques are not adequately and appropriately applied in order to preserve cash resource of the company.
- vi) Random selection of suppliers is costly to the organisation. However the use of payment terms as a criteria helps reduce the costs of the purchases and preserve liquidity

5.3 RECOMMENDATIONS

In light of the findings and conclusions, the following recommendations are proposed by the researcher for effective working capital management:

a) Recruitment of qualified personnel

It has been noted that invoices and remainders were not properly done, a lot of mistakes on them occurred which made it impossible to get all the cash, credit analysis and collection procedures were not effective owing to lack of an expert to make meaningful decisions. The research recommends the use of right and qualified personnel in positions who have adequate operational and financial skills.

b) Clear credit practices

Since the hospital is taking longer time to get its cash from debtors as well as failure to assess their creditworthiness leading to greater amount of bad debts, the researcher seeks to recommend that the hospital should put in place a proper credit analysis and collection policy which is strictly followed and reviewed and understood by anyone in the organisation. This has also been highlighted by Kretlow (2009) that an organisation should develop a clear out guidelines and procedure for granting credits in order to improve working capital.

c) Computerization of operational systems

As the hospital is failing to invoice, receipt and capturing data promptly and accurately, it is recommended to computerize its systems in order to improve efficiency in these areas of invoicing, dunning, ageing analysis, receipting and gathering of data. More so data lose can be minimized which means useful documents which brings in money can be preserved. Majority of hospital staff have lack of

computer literacy skills let alone the procedures in debt collection and management which made it serious to produce debtor's reports and analysis.

d) Need to set realistic cash flow forecasts

Some of the budget set in the hospital departments does not reflect what is on the ground. Expenditure need to be supported by its revenue and efforts need to be made to ensure the variance is kept minimum. There is need make realistic projections of weekly, monthly, quarterly and annual forecasts on hospital's expenditures and revenues. It has been observed that the hospital has been failing to set realistic budget and execution. It has been supported by Rangarajan (2005) as a cash management strategy since cash inflows and outflows are not perfectly synchronized hence the need for accurate forecasts.

e) Internal control systems

Misappropriation of funds through release of patients from the wards by nurses without receipting of money confirmed by the finance section. Token books used in the Outpatient department are out of date as figures reflect those used in the Zimbabwean dollar era and a margin marker is used to write the current charges. Therefore the researcher seeks to recommend sound and modern control tools to be put in place to safeguard organisation's working capital resources.

f) Maintain mutual relationships with suppliers

Bad reputation and stringent credit terms are other disadvantages haunting the organisation. The hospital need to secure good relations with suppliers and negotiate for longer payment period that will still maintain and not compromise its reputation with reliable suppliers. Mutual negotiations could allow the hospital benefit in terms of relaxed credit terms and discounts, reliable sources of supplies which would help reduce the need for regular cash outflows and preserve liquidity.

5.4 SUGGESTIONS FOR FURTHER STUDY

The researcher would suggest the need by other researchers to further analyse the impact of inventory conversion period on liquidity as this is one of the major working capital management that was partially looked at by the researcher.

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ACTS

Health Services Act (Chapter 15:16)

Public Finance Management Act [Chapter 22:09]

APPENDIX A QUESTIONNAIRE

I am a fourth year student at Midlands State University studying towards completing a Bcom honours in Business Management degree and I am carrying out a research on the analysis of the impact of working capital management on liquidity in public hospitals: The case of Chipinge District Hospital.

Please assist by answering all the questions contained in this questionnaire. Your answers will be treated in strictest confidentiality and only used for developing this research without any unfair treatment whatsoever to the respondent who participate in answering this questionnaire.

INSTRUCTIONS

- i) **Tick [√] where applicable and express your views in the spaces provided, if any.**
- ii) **Do not write any names on the questionnaire.**

Background Information

Tick [√] the appropriate response.

1 Sex

Female []

Male []

2 Academic

ZJC []

‘O’Level[]

‘A’ Level []

3 Professional Qualifications

Certificate []

Diploma []

Degree []

Post-graduate

Degree []

4. Department worked

Stores & Administration []

Finance [] Catering

[]

Pharmacy [] Human Resources [] Nursing [] other []

5. Working experience

0-5 years [] 5-10 years [] 10-15years []
 15+ years []

6. Post : Acting [] Substantive [] Probation []

APPENDIX B

QUESTIONNAIRE FOR THE FINANCE, STORES AND ADMINISTRATION, HUMAN RESOURCES AND HOD's

1. Significant indicators of working capital management.

	Strongly agree	Agree	Uncertain	disagree	Strongly disagree
Inventory conversion period					
Creditors' payment period					
Debtors' collection period					
Cash conversion cycle					

2. Impacts of the following working capital management strategies on liquidity

	Low	Medium	High
Clearly defined credit policy and strict collection procedures			
Negotiate for better credit terms with suppliers			
Setting realistic cash forecasts			

3. Identify the hospital's average debtors collection period?

	Tick the most applicable period
one week	
Fortnight	
one month	
Three months	

COMMENTS.....

4 Can you identify hospitals average creditors payment period?

	Tick the most applicable one period
Two weeks	
One month	
Three months	
Above three months	

COMMENTS.....

5. Identify the mostly used source of short term finance for the organisation.

	Strongly agree	Agree	uncertain	Disagree	Strongly disagree
Trade credit					
Debt factoring					
Stretching payables					
Bank overdrafts					

COMMENTS.....

6. How do you rate your knowledge on the use of cash management techniques, models and policies below?

	Very good	Good	Fair	Poor
Miller Orr model				
Baumol				
Cash budget				
Zero balance account				

7. What are the main causes for increased liquidity pressures in the organisation?

	strongly agree	Agree	Uncertain	disagree	strongly disagree
Limited government grants					
Late payments by group debtors such as social welfare and medical aid societies					
Lack of effective credit analysis and collection procedures					
Fluctuating revenue collections					

8. Suggest possible recommendations for effective working capital management to be enhanced.

	strongly agree	Agree	Uncertain	disagree	strongly disagree
Improvement in credit analysis and collection procedures					

Establish workable and strictly adhered budget					
Proper inventory planning and control techniques					
Negotiate favourable payment terms with suppliers and creditors					

APPENDIX C

QUESTIONNAIRE FOR THE CATERING, PHARMACY AND NURSING DEPARTMENTS

1. Impacts of the following working capital management strategies on liquidity

	Low	Medium	High
Clearly defined credit policy and strict collection procedures			
Negotiate for better credit terms with suppliers			
Setting realistic cash forecasts			

2) How do you rate on your knowledge and applicability of inventory control techniques below in the organisation?

	Very good	Good	fair	Poor
JIT				
EOQ				
ABC				
Stock Levels				

3. Which one of the following is the basis for the organisation's supplier selection?

	Tick the most applicable
payment terms	
Random	
costs and discounts	
Other	

4. Identify the mostly used source of short term finance for the organisation.

	Strongly agree	Agree	uncertain	Disagree	Strongly disagree
Trade credit					
Debt factoring					
Stretching payables					
Bank overdrafts					

5. Suggest possible measures to enhance effective working capital management in the organisation.

	strongly agree	Agree	Uncertain	Disagree	strongly disagree
Improvement in credit analysis and collection procedures					
Establish workable and strictly adhered budget					
Proper inventory planning and control techniques					

Negotiate favourable payment terms with suppliers and creditors					
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APPENDIX D

**INTERVIEW GUIDE FOR THE DISTRICT MEDICAL OFFICER,
DISTRICT HEALTH ADMINISTRATOR AND DISTRICT
ACCOUNTANT**

I am carrying out a research on the analysis on the implication of working capital management on liquidity. I am kindly asking for your time and co-operation in this matter. My research is specifically for academic purposes only. Your assistance will be greatly appreciated.

1. What do you understand by:
 - a) Working capital management
 - b) Liquidity?
2. Can you show the relationship between working capital management and liquidity at Chipinge district hospital?
- 3 a. How long does the organisation take to collect cash from its group and individual debtors?
 - b. Can you explain how the current debtor’s collection period is impacting on organisation’s liquidity position?
- 4a) what is the creditors’ payment period?
- b) What is the relationship between current creditors’ payment period and liquidity with reference to the hospital?
5. What are your strengths in the current working capital management system? Any weaknesses and what are your strategies to improve them, if any?

Thank you for your participation and support