



**St. Mary's University**

**SCHOOL OF GRADUATE STUDENTS**

**THE EFFECT OF WORKING CAPITAL MANAGEMENT ON  
PROFITABILITY OF TOUR AND TRAVEL SERVICE  
COMPANY IN ETHIPIA: IN CASE OF NATIONAL TOUR  
OPERATION AND TRAVEL AGENCY PLC**

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**JULY, 2023 G.C**

**ADDIS ABABA, ETHIOPIA**

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AGENCY PLC.**

**A THESIS SUBMITTED TO ST.MARY'S UNIVERSTITY,  
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IN ACCOUNTING AND FINANCE**

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**July, 2023**

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**ST. MARY'S UNIVERSITY**  
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# DECLARATION

I declare that this thesis is my original work, prepared under the guidance of Mr. Simon Tareke (Asst. Professor). I have acknowledged all resources and works of other scholars that I used in the research. Furthermore, I assert that this paper has never been submitted partly or in full to any higher institution for the purpose of receiving any type of degree or Master's program.

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# ENDORSEMENT

This paper has been submitted to St. Mary's University for examination with my approval as an advisor in the university.

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## Abbreviations

NTO: National Tour Operation

PLC: Private Limited company

CA: Current Assets

CL: Current Liabilities

LTA: Long Term Assets

STD: Short Term Debt

COH & B: Cash on Hand and at Bank

Inv: Inventory

TR: Trade Receivables

AP: Account Payables

Debt: Debtors

Cr: Creditors

BV: Book Value

STA: Short term asset

NTC: net-trade cycle

ROA: Return on Asset

ROE: Return on Equity

OPM: Operating profit Margin

NI: Net Income

WC: Working Capital

WCM: Working Capital Management

CLRM: Classical Linear Regression Model

## **ABSTRACT**

*The aim of this paper is to identify the effect of working capital management on profitability of tour and travel service companies in Ethiopia in case of national tour operation and travel agency plc were operating in the years from 2007 to 2022. The paper has been structured based on the six major components of working capital management namely: Inventory; Debtors; Cash on hand and at Bank; Trade Receivables; Creditors and Account Payables. The researcher measured company profitability using return on asset. The researcher used quantitative approach, and an explanatory research design in order to show causal and effect relationships between dependent and independent variables. Data from financial statements covering the period from 2007-2022 of National tour operation and travel agency analyzed using a time serious data least squares multiple regression technique using the E-views 10 software package. The study has identified that, at a significance level of 5%, all the independent variables: Inventory, Debtors, Cash on hand and at Bank, Trade Receivables, Creditors and Account payables, have significant negative effect on the dependent variable Return on Asset of tour and travel service companies in Ethiopia in case of NTO and Travel Agency PLC. The researcher recommends the management of the firms to follow a working capital management policy that reduces the problem of inventory, debtors, and cash on hand and at bank trade receivables, creditors and Account payables.*

*Key terms: working capital, working capital management, profitability, cash, accounts receivable, inventory, accounts payable.*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Every business organization in the world highly considered about the concept of Working Capital Management. Investors all over the world invest their money in a business to get some return on their investment in different forms of business. Historically, working capital management will pass through different stages, mainly the control, optimization and value measurement (Carlos Jose Borba Valiente, 2012).

Working capital management is all about managing current assets and current liabilities (Panda & Nanda, 2018). WCM is a significant fact of financial management due to it plays a pivotal role in keeping the wheels of a business firm running. If the company or industry has poor WCM that will affect the industry's output and it leads to problem to handle daily operation effectively. WCM intends to guarantee the sufficient ability of the company to continue its activity and to face operational expenses. It refers to the government of all elements of WC such as cash, marketable securities, debtors and stock receivables (Mohnihan & Pandey, 2007).

The importance of the working capital management function of the firm is crucial to the firm because it involves time, investment as well as growth prospects of the firm. WCM is important issue in the financial decision of firm because of its effect on firm's profitability, risk and consequently its value (Raheman & Nasr, 2007). WCM considers every decision that relates to managing current assets and liabilities to determining the optimal amount of Cash on hand and at bank, Trade receivables, Inventory, Debtors, Creditors and Account Payables cause and effect between current assets and current liabilities (Yiadom & Agyei, 2018). It is a measure of a company's efficiency; effectiveness and indicate short term financial health.

Many researchers and authors clearly identified that effective WCM focuses on improving companies' profitability to achieve their day-to-day operations. Proper WCM is significant to solve the challenges in financial instability of business organizations. A lot of researchers have been conducted in different countries to show the effect of WC components on companies' profitability. However, there have been few studies done in Ethiopia on working

capital management and profitability concerning the tour and travel service companies. By considering this problem, the purpose of this study is to assess the effect of working capital management on profitability NTO and Travel Agency PLC.

## **1.2 Statement of the problem**

The researcher conducting a study on tour and travel service companies in Ethiopia because there have been few studies on the effect of working capital management on profitability. Tour and travel service companies are a key factor in the success of the tourism industry. They contribute to the positive experiences that travelers across the globe endure. “They also adapt to changing factors such as the competitive environment, changes in tourism trends, changes in marketing trends, and adding value to customers”.

The aim of this research is to understand the effect of working capital management on profitability in national tour operation and travel agency plc. Working capital composition is one of the basic focuses of strategic decisions of businesses according to Preve & Serria-Allende (2010), which mention that its standard definition is the difference between current assets and current liabilities. It is a wider concept which fails to be captured by this definition. However there are some gaps in literature.

The first fact that calls for further study in the area is that there are differences of findings in related researches like Abenet and Venkateswarlu (2016), Ponsian et.al (2014), Mubashir. H. (2017), Hampus& Micael (2014),Bulin.(2016),Al-Debi'e (2011) the ultimate goal of all business organizations is to be a going concern. Tewodros (2010) studied its impact on profitability by taking 11 private limited manufacturing firms. He took ROA, OPM and ROE as a measure of profitability. The results show that longer accounts receivable and inventory are associated with lower profitability. On the other hand, Tiringo (2013) examined the impact of WCM on profitability of micro and small enterprises in Ethiopia for the case of Bahirdar city administration. The result showed that there is a strong positive relationship between number of day's account payable and enterprise profitability.

In addition to this Wubshet (2014) examined the impact of working capital management on firms profitability by using a sample of 11 metal manufacturing private limited companies in Addis Ababa, Ethiopia for the period of 2008 to 2012. The performance was measured in terms of profitability by return on total assets, and return on investment capital as dependent of profitability variables. The results shows that there is no significant relationship between

cash conversion cycle, account receivable period, inventory conversion period and account payable period with return on investment.

An instance of mismatch in findings is, while (Korent & Orsag, 2018) and (Falope & Ajilore, 2009) result review that management of working capital has negative effect on the firm's profitability whereas some of them such as (Enow & Kamala, 2016) and (Joanes & Wu, 2015) show that the positive effect between working capital management and profitability. Furthermore, the study conducted by (Angahar, 2014) did not capture tour and travel service companies, use cross-sectional data, Pearson product-moment of correlation and multiple regression analysis. Moreover, the studies by (Saif & Ahmad, 2013), (Debere, 2014), (Daniela et al., 2018), (Ahmed, 2016), (Mengesha, 2014) and others have been conducted on large companies, whereas no such studies have yet been conducted on tour and travel service companies in Ethiopia. Positive WC is required to ensure that a company is able to continue its operations and that it has sufficient funds to satisfy both maturing STD and upcoming operational expenses.

In managing WC, firm must take into consideration all the items in both accounts and try to balance the risk and return (U Rohini, 2020). The need of proper WCM is important for good solvency and liquidity of the firm (Jindrichovska, 2014). WCM should be given proper consideration and will ultimately affect the profitability of the firm (Raheman & Nasr, 2007). "The ultimate objective of any company is to maximize the profit. But, preserving liquidity of the firm is an important objective". One objective should not be at cost of the other because both have their importance. If we do not care about profit, we cannot survive for a longer period. On the other hand, if we do not care about liquidity, we may face the problem of insolvency or bankruptcy. Hence, it may have both negative and positive effect on firm's profitability, which in turn, has negative and positive effects on the shareholders' wealth, (Raheman & Nasr, 2007). A company can be endowed with assets and profitability but short of liquidity, if its assets cannot readily be converted into cash. . Improper management of WC could lead the company into liquidation (Napompech, 2012).

The more tour and travel service companies expand the more cash it supposed to generate. "If tour and travel service companies do not allow cash to flow through the business efficiently due to poor WCM, they risk starving the business of the capital need to develop, innovate, repay capital, make distributions or, even worse, pay their creditors". Failure to manage their receivables may lead to bad debts while failure to manage their inventories may lead to increased carrying cost, loss of liquidity, loss of customers when demands are not met. These costs lead to decreased profits and consequently collapse of the tour and travel service

companies. It is against this background that the study sought to find whether there is a cause and effect between WCM and profitability of tour and travel service companies. Not that they do not have funds to operate, but the problem is how they manage their working capital.

Various studies have been done in Ethiopia by many scholars on working capital management; those studies did not provide clear-cut direction of the cause and effect between WC and companies' profitability. Further examination of these studies reveals that there is little empirical evidence of the effect of WCM and the companies' profitability in case of tour and travel service companies. Therefore, this study is an attempt to fill this gap and to estimate the cause and effect between working capital management and profitability of tour and travel service companies in Ethiopia in case of NTO and Travel Agency PLC. Therefore, this study have been aim to provide further empirical and theoretical evidence on the effect of working capital management on the profitability of tour and travel service companies in Ethiopia.

### **1.3 Objective of the study**

#### **1.3.1 General objective**

The main objective of the study is to examine the effect of working capital management on profitability of tour and travel service companies in Ethiopia in case of National Tour Operation and Travel Agency PLC.

#### **1.3.2 Specific objectives**

The research has the following specific objectives:

- To examine the effect of cash on hand and at bank on the profitability of National Tour Operation and Travel Agency PLC;
- To evaluate the effect of Debtors on profitability of National Tour Operation and Travel Agency PLC;
- To examine the effect of the inventory on profitability National Tour Operation and Travel Agency PLC;
- To examine the effect of Trade Receivables on the profitability of National Tour Operation and Travel Agency PLC;
- To examine the effect of Creditors on the profitability of National Tour Operation and Travel Agency PLC;
- To examine the effect of Account Payable on the profitability of National Tour Operation and Travel Agency PLC;

## **1.4 Research hypothesis**

Based on reviewed literatures the researcher proposes the following six hypotheses. The relevant research hypotheses as follows:

Ho1: Cash on hand and at bank has negative and significant effect on Return on Asset of National Tour Operation and Travel Agency PLC;

Ho2: Debtors has a negative and significant effect on Return on Asset of National Tour Operation and Travel Agency PLC.

Ho3: Inventory has a negative and significant effect on Return on Asset of National Tour Operation and Travel Agency PLC.

Ho4: Trade Receivables has a positive and significant effect on Return on Asset of National Tour Operation and Travel Agency PLC.

Ho5: Creditors has a positive and significant effect on Return on Asset of National Tour Operation and Travel Agency PLC.

Ho6: Account Payables has a negative and significant effect on Return on Asset of National Tour Operation and Travel Agency PLC.

## **1.5 Significance of the study**

This study is important because it is intend to benefit for tour and travel service sectors, traders, government, lenders, hotels owners, customers, employees, the community and other researchers. The government is expected to get foreign currency from international tourists. Moreover WCM is the core of any business to other researchers and academicians. This study would have been a source of reference for future researchers to the related topics. It also help the academicians to find out better solution to overcome the limitations and this study have been provide better suggestions and planning to the future tour and travel service companies so that, they can remove the obstacles and come up with a better business model and planning.

This research is a helpful tool for the managers of the company in the NTO and Travel Agency PLC. This is because it gives insights regarding the influence of the working capital management components on their profitability. They also can identify better working capital management techniques with a focus on enhancing an effective utilization of the findings revealed, and with a proper consideration of the recommendations of the researcher.

Therefore, the researcher expects that the study would make a contribution toward academic point of view and provide useful information for company's management and holders of the company. If NTO and Travel Agency PLC maintain sufficient level of WC, the following



benefits are obtained; holding high amount of ample cash that are used to invest, internal control system will high, increases paying capacity of the business, availability of adequate WC increases the debt paying capacity of business, good will for different stockholders and development partners waiting, assist ability to generate positive cash flows in the future, meet its obligations to service and efficient on its finance of major transactions.

## **1.6 Scope of the study**

The scope of this study is delimited in first based on location. The study focused only on tour and travel service companies in case of NTO and travel Agency PLC. In the second way with respect to time period covered by secondary data to be collected 16 years from 2007 to 2022. The conceptual boundary of the research incorporates the dependent variable ROA and the independent variables COH & B, Inv, TR, AP, Debt, Cr. To achieve these objectives the study was use secondary data. With respect to research methodology, the research process is limited to the quantitative data of descriptive statistics and a multiple linear regression model through ordinary least squares. This is because the researcher intends to examine the cause and effect relationships of working capital management on profitability.

## **1.7 Limitation of the study**

The study is limit to tour and travel service companies in Ethiopia, in the case of National Tour Operation and Travel Agency PLC. The decision use tour and travel service companies' aspect that enhances validity of the study. Because, all the components of working capital management like inventory, trade receivable, cash on hand and at bank, debtors, creditors and account payables usually play an important roles in this study. The researcher was use the time dimension of the study beyond a 16 years period. Had a wider time interval been used, the findings of the research could have been strengthened, since higher number of years could have been represented by the output of the study. This is not affect the time of the researcher.

## 1.8 Operation definition of terms

This section is used to offer a kind of working definition to all the concepts, which would be operationally used in the course of the research. The notion is that there are some terminologies, which have been “adapted” and so utilized restrictively for the purpose of the research project. This implies that such terminologies would mean something somewhat different from the one adapted under a different circumstance. Individual concepts to be so defined are recognized and then itemized. It refers to a detailed explanation of the technical terms and measurements used during data collection. This is done to standardize the data. Whenever data is being collected, it is necessary to clearly define how to collect the data. Data that is not defined runs the risk of being inconsistent and might not give the same results when the study is replicated. Often we assume that those collecting the data understand what to do and how to complete the task. However, people may have differing views and interpretations of the same thing, and this will affect the data collection. The only way to ensure that the data is consistent is by means of a detailed operational definition of terms. Depending on the researcher the operational definition of terms are listed below

Cash on hand and at bank (COH & B) making change for customers or reimbursing and money that a business has deposited in a bank account. (Brealey, Myers & Allen, 2006, p. 813) (Koralun-Bereznicka, 2014), and Deloof, 2003: 573), (Rafuse, 1996), Baidh (2013), Gitman (1974), Richards and Laughlin (1980), (Shin and Soenen, 1998), (García-Teruel and Martínez-Solano, 2007). (Lazaridis and Tryfunidis, 2006): Gentry et al. (1990), Petersen and Rajan (1997), Lyroudi & Lazaridis (2000) , Brigham & Houston (2003 and 2007)

Inventory: The Company holds inventory of service before sales. (Adelman & Marks, 2007), (Block & Hirt, 1992), (Lantz, 2008), (Maness & Zietlow, 2005), (Pass & Pike, 2007), (Brealey et al., 2006).

Account receivables: The Company takes to collect revenue from outstanding service. (Adelman & Marks, 2007), (Block & Hirt, 1992),(Larsson & Hammarlund, 2005), (Block & Hirt, 1992), (William & McAfee, 2009) .

Debtors: The Company takes to collect Income from outstanding service. (Adelman & Marks, 2007), (Block & Hirt, 1992),(Larsson & Hammarlund, 2005), (Block & Hirt, 1992), (William & McAfee, 2009) .

Account payables: The company takes to pay creditors. (Adelman & Marks, 2007), Block and Hirt 1992).

Working capital management (WCM): A managerial responsibility concerned with the problems that arise in dealing with current assets, current liabilities, and their interrelationships (Abuzayed, 2012).

## **1.9 Organizational of the Paper**

The study is organized under five chapters. The first chapter includes introduction of the study, statement of the problem, objective of the study, research hypotheses, and significance of the study, scope of the study, limitation of the study and organization of the paper. In the second and third chapters, the literature reviews and research methodology and design are presented respectively.

The second chapter addresses theoretical and empirical aspects related to the study and the research's conceptual framework. In the third chapter the research approach, design, population and sample, data collection and analysis techniques are included.

In the fourth chapter data presentation, analysis and interpretation are provided structured based on the specific objectives. Finally, in the fifth chapter, the researcher has included a condensed narration of the findings, the conclusions and recommendations based on the findings.

## **CHAPTER TWO**

### **Review of related literature**

#### **2.1 Introduction**

This chapter will present the review of related literature fundamentals that will be used in the execution of the present study. Having as support previous literature, it is possible to understand the concepts regarding effect of working capital management and how it cause and Effect Company's profitability. It includes the theoretical and empirical evidence on the cause and effect relationship between working capital management and profitability. Finally, it presents conceptual framework and examine knowledge gap the study want to address. This study analyzes the cause and effect between working capital management and profitability tour and travel service companies in Ethiopia in case of NTO and Travel Agency PLC.

#### **2.2 Theoretical Review of Related Literature**

In this section, the researcher sought to provide understanding on the theoretical supporting ideas to the study on effect of working capital management on profitability tour and travel service companies in Ethiopia. More follows a demonstration of previous investigations that gives a presentation of the development in the researched field, as well as other important articles and journals. A discussion on the findings relevance to this thesis will present that ends in summarizing the hypotheses. The chapter concludes with contemplation on cause and effect.

For many companies WC amounts to a large proportion of the companies' total assets. On previous studies like US firms' total investment in WC at the end of 2011 aggregate to above 18% of the BV of their assets (Aktas, Croci and Petmezas, 2015). In the study of (Hill, Kelly and Highfield (2010) evaluated working capital requirements of 3343 firms over the period of 10 years and they found out that the WC requirement on average made up to as much as 23% of the firms' capital structure.

A report prepared by (Ernst & Young) estimated that there were in total between 360\$ billion and 660\$ billion in cash unnecessarily tied up in WC of 1000 US firms, estimated as working capital cash opportunity calculated by comparing previous years' performance of each of the firms' components of WC with the average and the upper quartile of the companies' industry peer group. A similar calculation resulted in between 290€ billion and 490€ billion of cash unnecessarily tied up in WC for 1000 European firms (Ernst & Young, 2013).

Earlier studies have evaluated the cause and effect between working capital management and profitability under different aspects of the economic environment and also in different industry aspects (Koumanakos, 2008, Panda and Nanda, 2018). Some of the studies like (Karaduman et al, 2011 and Alipour, 2011) have found a negative effects between WCM and profitability; whereas (Lazaridis and Tryfonidis, 2006), (Stephen and Elvis, 2011) has found positive effects. Therefore, the present study has attempted to analyze the relevance of WCM on firm profitability for tour and travel service companies in Ethiopia in case of NTO and Travel Agency PLC. If the peddler was able to repay the loan, then the bank would make another loan, and banks that followed this procedure were said to be employing "sound banking practices (Damodaran, 2012).

### **2.2.1 Working Capital**

The perception of working capital was first acquired by (Marx, 1867). According to, studies of (Fabozzio and Pamela, 2003) WC is made up of the net sum of current assets less current liabilities and it is often referred to as the net working capital (Penman, 2013). (Brigham and Ehrhardt , 2016) explain the historical context of the term "working capital," which was originated by an ancient Yankee businessman who would load his carriage with items and then ship it to the market for sale. "His horse and carriage were fixed assets, whereas his stock was sold or turned over for a profit and was thus referred to as working capital".

Working capital is defined as the sum of inventories, short-term receivables and financial accounts. In addition to this WC is defined as current assets less current liabilities. Working capital indicates a company's investment in short term assets like cash, short term securities, accounts receivables and inventories (Weston and Brigham, 1977). Working capital is the essence of a business, which measure the companies' profitability in short run (Devi, 2018). Working capital is a capital that intended to meet companies's operating activity (Dalayeen, 2017). It explain as financial metric which represents operating liquidity available to an organization or other entity, (Deloof, 2003). Working Capital is designate as time lag between the expenditure for the purchase of materials and the collection for the sale of the finished products (Shin and Soenen (1998). It is a trading capital not retained in the business in the particular form for longer than a year. Working capital is portion of a company's capital invested in short term or current assets to carry on its day to day operations smoothly (Kishore, 2008). Working capital underfed is generally credited as a major cause of a business failure in many developing countries. The cash flow problems of multifarious businesses are worsened by indigent financial management and in particular, the lack of planning cash requirements (Jarvis et al., 1996).

Working capital serve as a cover for the time of expenditure for the purchase of raw materials and the time of cash collection or payment of the sales of finished products or services provided (Gitman, 2005). According to (Ashok Kumar Panigrahi, 2013), working capital represents a net investment in short term assets. The various elements of WC are interrelated, and can be seen as part of a cycle. According to (Rao,2009), The exact amount of WC that should be maintained varies from company to company and depends on various factors like nature of business, degree of competition, seasonality of operations, production cycle, production policy, credit policy, market conditions, conditions of supply, size of the company, age, growth opportunity and leverage. It is the capital available for conducting the day to day operations of an organization will represent by its net current assets (Adeniji, 2008). It is also known as the life blood of the firm.

The need for WC can be explained with the help of operating cycle or cash cycle. The profitability of a business company would concern on the resources it owns and the obligations it has to done. Companies carry out different activities to make profits, and to get wealth for further growth. Finance management knows the importance of profit functions and their linkage with their own activities (I.M. Pandey, 1997). Hence financial position of the firm should be assessed and future position of the companies should predict. To make the business activities in order to make profit, it would be necessary to keep the financial position comfortably. Hence, the present study is initiated to predict the financial position of the firms and to find out the linkage between financial position and profitability. Financial statements provide information about the financial positions of a company that is useful to a wide range of users in making economic decisions (Chartered institution, 1997). A well-managed WC promotes a company's wellbeing on the market in terms of liquidity and it also acts in favor for the growth of shareholders value (Jeng-Ren, et al., 2006).

In the words of (Walker, 1964), "A firm's profitability is resolved in part by the way its working capital is managed". The main objective of proper management of "working capital is to control companies' current assets and current liabilities to establish satisfactory working capital is maintained. The firm's inability to maintain a satisfactory level of WC will lead to insolvency and may subsequently lead to bankruptcy of the company. It is therefore extraordinary that WC is the life wire to run day-to-day administration of companies' activities smoothly and cannot be amplified. Working capital should be able to provide the short-term financial requirements of a business venture (Gitman, 2005). Therefore, WC is design to provide the necessary investment requirement for the running of daily business activities. Working capital serve as a cover for the time of expenditure for the purchase of raw materials and the time of cash collection or payment of the sales of finished products or services provided (Gitman, 2005).



Working capital is funds required for day to day operations of the business. According to Paramasivan and Subramanian (2009), Working capital can be understood with the help of the following two important concepts (gross working capital and net working capital). The investment that is needed for receivables, inventories and cash is generally called working capital or gross working capital. It is simply called current assets in the balance sheet of a firm. Generally speaking, net Working Capital is the specific concept that considers both current assets and current liability of the concern. Net Working Capital is the excess of current assets over the current liability of the concern during a period. When current assets is greater than the current liabilities it is said to be positive working capital; and the vice versa is said to be Negative working capital. The following table shows as an example the part of the balance sheet that has an impact on working capital.

Table 1 Example of working capital in a balance sheet

Current Asset	Current Liability
Cash in hand	Bills Payable
Cash at Bank	Sundry Creditors
Bills receivable	Outstanding expenses
Sundry debtors	Short-term loan and advances
Short-term loan advances	Dividend payable
Inventories	Bank Overdraft
Prepaid expenses	Provision for Taxation
Accrued income	

Sources: Drafted by the author from Paramasivan and Subramanian (2009)

Working capital as per Frank J. & Pamela P, (2003), comprises permanent working capital and temporary working capital.

### 2.2.2 Working capital management

Working capital management involves administration of current assets and current liabilities which consists of optimizing the level of current assets in partial equilibrium context (Machiraju, 1999). Working capital management has a consequent effect on business survival and growth (Kargar & Blumenthal, 1994). Working capital management is maintained equally among the reduce risk and increase the income from assets. It concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the cause and effect that exists between them (Khan and Jain, 2007). Looking at the relevance of WCM on firm profitability, all the components of WCM need to be analyzed independently and the study intends to do that. In keeping with (Mawhiraju, 1999) justification, working capital management involves administration of current assets and current liabilities which consists of optimizing the level of assets in partial equilibrium context.

WCM also refers to the cover of all elements of working capital such as cash, marketable securities, debtors and stock receivables (Moynihan & Pandey, 2007). Working capital management is a practice that seeks proper policies for managing current assets and liabilities and practical techniques for maximizing the benefit from managing working capital” (Hampton, 2007). Working capital management should allow the company to generate the liquidity necessary to meet short-term debts, optimizing the cause and effect on firms profitability (Filbeck and Krueger, 2005; Sensini, 2017; Boisjoly et al. 2020; Mannetta, 2014; Bello and Sensini, 2020; Chalmers et al., 2020). Understanding a company’s cash flow health is important for making investment decisions. Working capital management like long-term financial decisions affects the risk and profitability of a firm, (Leon, 2013). Working capital management directly focuses on the short-term financing and short-term investment decisions of firms (Sharma and Kumar, 2011).

Current assets consist of capital tied up in cash on hand and cash at bank, trade receivables inventories, debtors, short-term financial investments, and other current assets (Brealey, Myers & Allen, 2006, p. 813), while current liabilities are short-term loans, debts to suppliers as account payables, accrued income taxes, interest payments on short term debts like commercial bills, dividend, overdrafts and other current liabilities. These assets are continually flowing into and out of the business, are essential for day-to-day operations of the company.

Good working capital management will ensure a firm has good economic fundamentals, which will give them the ability to adapt to market changes, such as changes in raw material prices and interest rates, and ultimately allow them to compete in the market (Appuhami,

2008). The goal of WCM is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing STD and upcoming operational expenses, and to manage the companies' current assets and current liabilities in such a way that satisfactory level of working capital is maintained in the business.

### **2.2.3 Importance of working capital**

The words of (H. G. Guttman, 1950) clearly emphasize the importance of working capital. While inefficient management will undoubtedly lead to Ensured failure of the business (Fabozzi & Peterson, 2003). According to (Gallagher& Andrew, 2000) WC is as essential for smooth and efficient running of a business as circulation of blood is essential in the human body for maintaining life (Gallagher & Andrew, 2000). Many empirical evidences stated the importance of working capital on the companies' routine business activities discuss the need of working capital is varies from company to company (Eugene, et al, 2014). Working capital is one of the important measurements of the financial position. The importance of working capital are; provides the ongoing investment in STA that the company needs to cover its daily expenditures, addressing seasonal or cyclical financial needs, sustain Companies' growth, facilitate sales growth, provides the firm with liquidity, gives credit obligations.

### **2.2.4 Components of working capital**

The elements of working capital that investors and analysts assess to evaluate a company determine a company's cash flow. These elements are money coming in, money going out, and the management of inventory. Companies must also prepare reliable cash forecasts and maintain accurate data on transactions and bank balances. If a company cannot meet its short-term obligations, it may face bankruptcy while holding excessive liquid assets or cash may not be the best use of its resources. These are six main components associated with working capital management:

#### **2.4.1 .1 Cash management**

Every business uses cash management. Cash is used to pay creditors, for purchases, pay wage and salaries to employees, pay interest on loans and taxation and for others expenses. It is also used to acquire non-current assets. Cash management refers “to the management of an entity’s cash to ensure sufficient cash to sustain the entity’s daily operations, finance continued growth and provide for unexpected payments while not un acceptably forfeiting profit owing to excess cash holdings” (Mbroh, 2012, p. 40). Cash is the most liquid and the most coveted asset of a business and it also the life blood of every business organization. The success of a business depends to a large extent on how the firm’s cash is managed. According to (Yousef & Smirat, 2016) bad cash management can make company weak to the point of failure. He stressed that especially among small firms; it is uncommon for companies to be simultaneously profitable and bankrupt. Therefore cash can be generated by: Shifting Inventories, collecting receivables, and extending the payables or shortening the operating cycle (Moynihan & Pandey, 2007). The study therefore explored the effect of working capital management on profitability tour and travel service companies in Ethiopia in case of NTO and Travel Agency PLC.

#### **2.4.1 .2 Inventory Management**

Inventory is a company's primary asset that converts into sales income. According to (Chase, Jacob & Aquilino, 2004) inventory is the stock of any item or resource used in an organization. Inventory is the stored accumulation of materials resources in a transformation system (Pycraft et. al, 2004). Ephrem, A., (2018) explained, -Inventory or stocks are a crucial make-up of current assets. International Accounting Standards (IAS2) states that Inventories shall be measured or valued at the lower of cost and net realizable value. The costs of inventories comprise all cost of purchase, cost of conversion and cost incurred in bringing the inventories to their present location and condition. The rate at which a company sells and replenishes its inventory is a measure of its success. Investors consider the inventory turnover rate to be an indication of the strength of sales and how efficient the company is in its purchasing and manufacturing. Excess investment in inventories is unprofitable for the business and both excess and inadequate investments in inventories are not desirable (Fabozzi and Peterson, 2003, p. 658). Lack of coordination among departments, poor sales forecasts, or both, can lead to disaster (Brigham and Houston, 2003, p. 707).

The aim of inventory management is to hold inventories at the lowest possible costs (Hugo et. al, 2002). Low inventory means that the company is in danger of losing out on sales, but

excessively high inventory levels could be a sign of wasteful use of working capital, reduces the cost of possible interruptions in the production process or of loss of business due to the scarcity of products, reduces supply costs, and protects against price fluctuations, among other advantages (Blinder and Manccini, 1991). Inventory is also a major component of WC, because of the significant investment, a typical business must make in inventories, and the proper management of this asset can have a significant effect on the profitability of the firm.

(Yiadom & Agyei, 2018, Blinder and Manccini,1991) noted that there are several types of inventory (raw materials, stores, spares, packing materials, coal, petroleum products, finished goods in stock, work-in progress, raw materials, components and parts) which a business can keep depending on the nature of its operations. The necessity of forecasting sales before establishing target inventory levels makes inventory management a difficult task (Brigham and Houston, 2003, p. 707). The purpose of inventory management is to determine and maintain the optimum level of firm's investment on inventory. The firm should have enough inventories to meet the unexpected rise in demand but the cost of holding inventory should not exceed its benefit (Brealey and Myers, 2003, p.821).

Inventory management defined as “the art and science of maintaining stock levels of a given group of items incurring the least cost consistent with other relevant targets and objectives set by management (Raza et al., 2015, p. 287).” Efficient and effective stock management allows a firm to circumvent needless investment in inventories (Eneje, Nweze & Udeh, 2012, p. 351). This argument indicate that failing to implement appropriate inventory management mechanisms will eventually be determinant to its profitability ( Muninaray Anaappa & Aggarwal , 2013, p. 75). These scholars highlight of excessive inventories, they argue that interestingly excessive inventories are advantageous (Panigrahi, 2013, p. 108).

High inventory levels reduce the cost of possible interruptions in the production process or of loss of business due to the scarcity of products, reduce supply costs, and protect against price fluctuations (Panigrahi, 2013). “Just in Time concept that is used in some countries like Japan can lend inspiration to Namibian State-Owned firms on inventory management. As underlined by (Anichebe and Agu, 2013, p. 94), effective inventory management should aim at avoiding unnecessary inventory and maintaining suitable inventory levels for optimum business operations. According to (Josh. 2000) enumerates the objectives of inventory management are;-to reduce cost of holding stock so that investment in stock outs production cycle operates smoothly and to persuade the business to reduce the levels of inventory.

According to (Wild, 2002) inventory controls is the activity which organizes the availability of items to the customers.

#### 2.4.1 .3 Trade Receivable Management

Trade receivables is the amount that the company has billed to its customer for selling its goods or supplying the services for which the amount has not been paid yet by the customers and is shown as an asset on its balance sheet. In addition to this trade receivable is the accounting entry in an entity's balance sheet, which arises due to the selling of the goods and services on credit. Trade Receivables are assets representing amounts owed to the firm as a result of the sale of goods or services in the ordinary course of business. According to (Cederlund et al., 2006) businesses make sales on credit for two basic reasons: 1<sup>st</sup> it may be more convenient than selling for cash and 2<sup>nd</sup> it will encourage customers to buy or get services they might not differently. While business firms would like to sell on cash, the pressure of competition and the force of custom persuade them to sell on credit (Yiadom & Agyei, 2018). It is valuable to customers as it augments their resources-it is particularly appealing to those customers who cannot borrow from other sources or find it very inconvenience to do so. (Fabozzi & Peterson, 2003 p. 651) revealed that when a firm allows customers to pay for goods and services at a later date, creates accounts receivables. The goal of trade receivable management is to maximize the value of the firm by achieving a tradeoff between risk and profitability. According to (Hampton, 2004) there are factors should be analyzed: profit, growth in sales, and possible problems. Ways to improve trade receivable management are; customer credit approval, customer master data, invoicing and billing, and improving cash application process. Trade receivable management processes are; determine customer's credit rating, monitor late payments, maintain customer relationships, and maintain account balance.

#### **2.4.1 .4 Debtors Management**

A debtor is a person or an organization that agrees to receive money immediately from another party in exchange for a liability to pay back the obtained money in due course of time. In other words, a debtor owes money to another person or organization. The amount owed a debtor repays periodically with or without interest incurred. Depending on the type of undertaking, debt can be referred to in different terms.

Debtor management is a strategy that involves the process of designing and monitoring the policies that govern how a company extends credit to its customer base. The idea behind this process is to minimize the amount of bad debt that the company will eventually incur due to customers failing to honor their commitments to repay the total amount of the credit purchases. Typically, the process of debtor management begins with evaluating potential customers in terms of credit worthiness, identifying a credit limit that carries a level of risk that the company is willing to assume, and then monitoring how well the customer makes use of that available credit, including making regular payments within the terms and provisions associated with the credit account. National tour operation and travel agency also use debtors.

#### **2.4.1 .5 Creditors Management**

A creditor is a person or an organization that provides money to another party immediately in exchange for receiving money at some point in the future with or without additional interest. In other words, a creditor provides a loan to another person or entity. Creditors are generally classified as secured or unsecured. Secured creditors provide loans only if the debtors are able to pledge a specific asset as collateral. Unsecured creditors do not require any collateral from their debtors. Credit management refers to the process of granting credit to customers, setting payment terms and conditions to enable them to pay their bills on time and in full, recovering payments, and ensuring customers comply with company's credit policy. Therefore, National tour operation and travel agency plc use credit management.

#### **2.4.1 .6 Account Payable Management**

Firms many time purchase goods and get services on credit and is usually referred to as trade credit. The practice of businesses extending trade credit to one another is probably the most important 2013; ( Mathuva, 2015). In turn, the companies can achieve more profits by taking a long time to pay creditors' bills for using this liquidity to finance investments in short-term assets (Jayarathne, 2014). According to Morris (2009), all businesses should set a clear policy on creditor management source of short term funding (Ruback, 2003). There are many merits

related to trade credit like: easy availability: except if the firm is not financially stable, flexibility: credit purchases are directly related to the firm sales and informality: it is not formal like negotiated sources of finance. Accounts payable includes trade credit and accrued expenses, which together provide financing for business operations continuously (Bhattacharya, 2014). Previous studies have found a significant positive relationship between account payable and profitability (Gonçalves et al.; Hsieh et al., 2018). That will underline their approach to sourcing and negotiating terms and conditions. Lazaridis and Tryfonidis (2006) established that there is a negative relationship between gross operating profit and accounts payables. “This is so since the longer a firm delays its payments the higher level of working capital levels it reserves and uses in order to increase profitability”.

(Jerger, 1996) carried out a study, which was based on 661 Belgian non-financial firms from 1989 to 1991. They found that accounts payable are a substitute for short term liabilities given the amount of short term assets. They revealed that cash flow is significantly and negatively correlated with accounts payable and hence confirms the role of trade credit in financing of a firm. Trade credit appears to be an interest free from customers but it is not cost free.

Hence, having come to an agreement on the credit period, a firm should not try to put off its payment further than the agreed time. Delaying payment to the company is not an option if a firm wants to improve its working capital. Odhiambo (2016) argues that such a tactic is inefficient both for the individual firm and the economy at large. “Accounts payable is the largest single category of short-term debt. Organizations that go beyond agreed credit limits may run into trouble, out on cash discounts, incur interest charges and upset their customers who may refuse future orders (Dr. Philip. E. Dunn, 2001).



### 2.2.5 Measures of profitability

Working capital management is important due to its positive effects on the firm's profitability and value. Majority combative WC policies are associated with higher return and higher risk. The greater the investment in current assets, the lower the risk, and the lower the profitability obtained. According to (Pandey, 2005), the goal of working capital management is to manage the firm's current assets and current liabilities.

According to (Sulaiman, 2020) profitability is the ability to create an excess of revenue over expenses in order to attract and hold investment capital. The four useful measures of firm's profitability are: the rate of return on firm's assets (ROA), the rate of return on firm's equity (ROE), operating profit margin (OPM) and net income (NI). The rate of return on firm's assets measures the return to all firm's assets and is often used as an overall index of profitability, and the higher the value, the more profitable the firm. The rate of ROA is therefore an indicator of managerial efficiency as it shows how the firm's management converted the institution's assets under its control into earnings (Falope O.I. & Ajilore O.T, 2009). The ROE measures the rate of return on the owners' equity employed in the firm (Pandey, 2005). ROE indicates how well the firm will have used the resources of owners. The operating profit margin focuses on the per unit produced component of earned profit and the asset turnover ratio. The net income comes directly on the income statement and it is calculated by matching firm revenue with expenses incurred to create revenue plus the gain or loss on the sale of firm capital assets (Gitman L.A, 2006). From the four measurement of firms profitability the researcher use Return on Asset.

Return on assets, measures a company's success in using assets to earn profit? (Hornngren et al., 2012, p739). Hassan et al., (2014) described return on asset: Return on assets is very important and provide a standard for changing how efficiently financial management employs the average amount which is invested in the firm's assets, whether the amount come from investor or creditors. It calculates the percentage of profit a company is earning against per each amount of assets (Weston and Brigham, 1977) i.e. Return on Assets (ROA) = $\frac{\text{Net Income before profit tax}}{\text{Total Asset}}$  (As cited by Ayichelet, P12).

### 2.2.6 Determinants of working capital

Many factors influence on working capital needs of organizations. These factors affect different tour and travel service companies differently. From those factors Leverage: cost of fund invested in the cash conversion cycle is higher in organizations with a larger leverage because they have to pay a higher risk premium. There are many determinants of working capital like growth opportunities, age, tangibility of fixed assets, returns, capacity to generate internal resource and size. According to (Kieschnich,R.M,La Plante and R.Moussawi,2006) showed that future sales growth has a positive influence on an organization's cash conversion cycle and that organizations might build up inventories in anticipation of future sales growth. Older organizations get external financing more easily and under better conditions (Niskanen. M, 2006). Fixed investment competes for funds with the levels of working capital when organizations have financial constraints (Fazzari S.M.and Petersen. B, 1993). ROA has a negative influence on working capital as organizations with better performance get outside capital easier (Wu Q.S,2001).

### **2.3 Empirical study**

In this chapter, it will be conduct empirical study that will allow a better understanding of the effect of WCM on the profitability of tour and travel service companies in Ethiopia. It will organize in different segments like it is performed a explained that will be helpful to understand the composition and characteristics of the sample, necessary for the interpretation of the results; Correlation Coefficients to understand the cause and effect between variables. A multivariate analysis is carried out through fixed effects regression and instrumental variables, to provide better insights about the cause and effect between WC components and companies' profitability. As one of the main contributions of this research is to study the effect of working capital management on profitability would take into account National Tour Operation and Travel Agency PLC.

(Shin & Soenen, 1998) used net-trade cycle (NTC) as a measure of working capital management. The reason by using NTC is it can be an easy device to estimate for additional financing needs with regard to working capital expressed as a function of the projected sales growth. This cause and effect will examine using correlation and regression analysis, by industry and WC intensity. Using a sample of 58,985 firm years covering the period 1975-1994, in all cases, they found, a strong negative cause and effect between the length of the company's net-trade cycle and its profitability. In addition, shorter NTC are associated with

higher risk-adjusted stock returns. In other word, they suggest that one possible way the firm to create shareholder value is by reducing firm's NTC.

(Deloof. M, 2003) analyzes that large Belgian firms and the results confirmed that by reducing the inventories period. The Belgian firms could improve profitability. He suggested that managers can increase corporate profitability by reducing the number of year's accounts receivable and inventories. Less profitable firms wait longer to pay their bills.(Teruel and Solano, 2005) suggested that managers could create value by reducing their firm's number of Year's accounts receivables and inventories. Similarly, reducing the cash on hand and at bank also enhance the firm's profitability. In the Pakistani context, (Rehman, 2006) concluded that there is a significant cause and effect among WC ratios and returns of firms. Furthermore, managers can create a positive value for the shareholders by reducing the cash balance up to an optimal level. Similar studies on WC and profitability includes (Smith & Begemann, 1977), (Ghosh & Maji, 2004) and (Lazaridis & Tryfonidis, 2006).

(Lyroudi & Lazaridis, 2000) used food industry Greek to examine the Cash category as a liquidity indicator of the firms and tries to determine its cause and effect with the current and the quick ratios, with its component variables, and investigates the implications of the cash category in terms of profitability, in daftness and firm size. The results of their study indicate that there is a significant cause and effect between the cash category and the traditional liquidity measures of current and quick ratios. The cash category also positively related to the return on assets and the net profit margin. Conversely, the current and quick ratios had cause and effect with the debt to equity ratio, and times interest earned ratio. Finally, there is no difference between the liquidity ratios of large and small firms. (Zariyawati, Annuar and Rahim, 2009) investigated the cause and effect between working capital management and profitability of Malaysian firms, using cash category as a measure of working capital management. The researchers used panel data of 1628 firm-year for the period of 1996-2006 from six different economic sectors which were listed in Bursa, Malaysia. Their findings revealed that the coefficient results of regression analysis provided a strong negative significant cause and effect between cash conversion cycle and firm profitability. Therefore, a firm's manager can increase profitability by reducing cash category.

Similarly, in attempt to investigate the cause and effect between WCM and profitability (Racheman and Nasr, 2007) selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of 6 years from 1999 – 2004 and studied the effect of different variables of WCM which were collection Period, inventory Period, payment period, Cash Category and current ratio on the net operating profitability of Pakistani firms. The

researchers used debt ratio, size of the firm (measured in terms of natural logarithm of sales) and financial assets to total assets ratio were used as control variables. The regression analysis used showed a negative relationship between variables of the WCM and profitability of the firm. In other words, decreasing cash category will increase profitability of firm. (Racheman and Nasr, 2007) thus conclude that managers can maximize shareholders' value by decreasing Cash category of the firm.

(Deloof 2003) Surveyed on Belgian Firms to find out whether the WCM affects profitability, using correlation and regression tests. He found a significant negative relationship between profitability and trade receivables, debtors, inventories, creditors and accounts payable of Belgian firms. The negative relationship between accounts payable and profitability is consistent with the view that less profitable firms wait longer to pay their bills.

WC is used as a way to study firms' liquidity. (Jose et al., 1996) explains the evolution of the measures to ascertain on WCM and profitability explained that, traditionally, it was used current ratios, quick ratios, net working capital and ratio of net working capital to current liabilities. Richards and Laughlin (1980) have been aware of the limitation and encouraged the use of ongoing liquidity management measures as Cash category. Ongoing liquidity management uses cash flows to cover commitments avoiding default. In recent years, cash category has become a more appropriate tool when investigating organizations' cash management, since it combines balance sheet and income statement data and enables to create a time dimension framework.

Efficient utilization of firm's resources since there is a belief that it has an effect on the firm's financial performance, but there has been little empirical evidence on this specific issue (Ricciand N. DiVito, 1998; Garcia-Teruel and Martinez Sonano, 2007; Hill et al., 2010). Efficient utilization of the firm's resources, as it relates to working capital management, means that executives should find effective and efficient ways to deal with the cash available for the day-to-day operations in order to achieve the optimum target. Good WCM leads to increase cash flows, and leads to lesser need on external financing; therefore, the probability of default for the firm is reduced. A key factor in the working capital management is the cash conversion cycle (Deloof, 2003). Cash conversion cycle is defined as the time lag between the purchasing of raw materials or rendering of services and the collection of cash from the sale of goods or services rendered. The longer the lag, the greater the investment in working capital, and thus the financing needs of the firm will be greater.

Many researchers and interpreters argue that efficient management of working capital is very essential for companies during the booming economic periods and when strategically managed well will lead to improve competitive position and profitability (Lo, 2005), others have argued that improving the management of working capital is rationally essential for companies to withstand the impacts of economic uproar than in the economic booming period (Reason, 2008). Some studies show a direct relation between investment and firm value (Baños-Caballero, Martinez-Solano & Garcia-Teruel, 2014). “Respectable literature has extensively provided much data or findings on credit policy and inventory management”. However, only a few of literatures considered the need of assimilating both credit policy and inventory management decisions. Most of studies were done between 70’s and 90’s (Schiff & Lieber, 1974), (Sartoris & Hill, 1983), and (Kim & Chung, 1990).

Accordingly, these studies have consistently demonstrated how trade credit and inventories can influence firms’ value (Bao & Bao, 2004; Emery, 1984) The assumption that working capital management could have a great impact on a firms’ value is also enjoying widely recognition Empirical evidence on working capital management impacts on firms’ value is scarce” “Most empirical studies support the traditional believe about working capital and profitability which states that reducing working capital investment would positively affect the profitability of firm (aggressive policy) by reducing proportion of current assets in total assets Smith (1980) was the first to signal the importance of ensuring working capital management, particularly between liquidity and profitability” He states that “decisions which tend to maximize profitability tend not to maximize the chances of adequate liquidity”. On the other hand, a firm concentrating almost exclusively on liquidity is likely tended to reduce the potential profitability of the company.

(Sartoris et al., 1983) For instance, is the decisions made by the inventory manager on the level of raw materials that is if the inventory manager decide to increase the amount of inventory, other working capital components including receivables and payables is likely share the risk and would react in a manner that will decrease the amount of finish goods to stretch the profit margin Consequentially, unproductive inventory management will have a great impact on a firm’s economic value through cost and risk holdings of unemployed products Unfortunately, previous researches are unable produce an attractive conclusion on the connection between working capital management For example,( McInnes (2000) showed that about 94 percent of companies were unable to integrate their working capital components as anticipated by the theory”

Deloof (2003) on the other hand in his studies analyzed a sample of Belgian firms, and (Wang, 2002) analyzing a sample of Japanese and Taiwanese firms, emphasized that working capital management has a significant effect on firm's profitability and this increase in profitability can be done by reducing the number of day's accounts receivables and inventories. Firms' profitability and liquidity are reported to be affected by working capital management. Research on pooled data between 2006 and 2008 to assess enlisted companies on Vietnam's stock market is an evidence of working capital impact on firms' profitability (Dong, 2010). In his (Dong, 2010) studies, Dong focused on variables" including "profitability, conversion cycle and its related elements and the relationship that exists between them". His "research depicted a strong negative relationship among these variables denoting that an increase in cash conversion cycle causes a decrease in the profitability. In agreement to Deloof (2003) the research stated that a reduction in profitability is likely to increase numbers of days of accounts receivable and inventories"

"Padachi (2006) examining the trends of working capital and profitability management and their impact on the performance on a firm among 58 Mauritian small manufacturing firms 1998 and 2003. According to his findings a well designed and implemented working capital management is expected to contribute positively to the creation of firms' value. The results indicated that high investment in inventories and receivables is associated with low profitability and also showed an increasing trend in the short-term component of working capital financing (Raheman & Nasr, 2007) also studied the relationship between working capital management and a company's profitability in 94 firms listed on Karachi Stock Exchange using static measure of liquidity and ongoing operating measure of working capital management during 1999- 2004. The findings of the study suggest that there exists negative relation between working capital management measures and profitability among this firms"

Sen (2009) examining listed firms on the Istanbul Stock Exchange (ISE) to find out the relationship between companies' performance and their working capital identified negative relationship among variables. Findings of this research helped to uncover the important role of finance directors acting as moderators or catalysts in increasing a firm's productivity and in the long run positively affecting the firm's performance.

Many of the previous studies in the subject of working capital management and firm performance have shown through empirical evidence that a cause and effect between working capital management and firm profitability exists. Zeidan and Shapir (2017) have studied cash conversion cycle and its effects on creating shareholder value.

Working capital management can be carried out using two approaches, namely an aggressive working capital approach or a conservative working capital approach (Weinraub & Visscher, 1998). The aggressive working capital approach is used when a firm uses more foreign capital to finance its current assets, and the working capital is conservative when a company uses current assets more than its current debt. Although returns increase due to maintaining a high operating cycle of current assets using an aggressive strategy approach, the risk is extremely high as the company attempts to keep a minimum amount of cash and marketable securities and reduce the amount of investment in inventory. Thus, the firm cannot pay its obligations. Moreover, maximum utilization of short-term debt to finance current assets may induce higher risk as there is a probability of failing to make payments by their due dates. A conservative manager prefers long-term debt or equity over short-term debt to finance current assets as it decreases the risk of bankruptcy; however, this preference also has some drawbacks, such as increase in the cost of capital and a decrease in shareholders' returns.

The cause and effect between WCM and profitability has been studied through many researchers, applied for different companies' sizes. In the field of large firms, (Shin and Soenen (1998) explore this relationship in a sample of American listed corporations for the period 1975-1994 using the net trade cycle, which is similar to CCC but all WC components are expressed as a percentage of sales. In this study, they found a negative relation between net trade cycle and market measure of stocks returns and profitability. Deloof (2003) analyzed how WCM influenced profitability of Belgium firms for the period 1992-1996. In his research, the author uses Gross Operating Income as a profitability measure instead of ROA. Moreover, (Lazaridis and Tryfonidis, 2006) study this theme with a sample of listed companies in Athens Stock Exchange, for the years 2001-2004, and they reached the conclusion that CCC and Gross Operating Profit establish a negative relationship.

Regarding small firms, García-Teruel and Martínez-Solano (2007) investigated a sample of Spanish SME companies for the period 1996-2002. They realized that minimizing the number of days in receivables and inventory allows decreasing CCC and, therefore, raising firms' profitability. Pais and Gama (2015) study how WCM influences non-financial Portuguese SME using a sample for the period 2002-2009. Their results also reached the conclusion that days in receivables, inventory, payables and cash conversion cycle vary inversely with regard to profitability. Lyroudi & Lazaridis (2000) used food industry Greek to examine the cash conversion cycle (CCC) as a liquidity indicator of the firms and tries to determine its relationship with the current and the quick ratios, with its component variables,

and investigates the implications of the CCC in terms of profitability, indebtedness and firm size. The results of their study indicate that there is a significant positive relationship between the cash conversion cycle and the traditional liquidity measures of current and quick ratios.

Therefore, several authors found a negative relationship between WC determinants and profitability during their study which explains that minimizing working capital components increases firms' profitability (Deloof, 2003; García-Teruel and Martínez-Solano, 2007; Jose et al., 1996; Lazaridis and Tryfonidis, 2006; Pais and Gama; 2015; Shin and Soenen, 1998). In fact, Baños-Caballero et al. (2014) found an inverted U-shaped relation that confirms the existence of an optimal level of investment of WC that allows creating equilibrium between costs and benefits, maximizing business' performance.

Mathuva (2015) examined the effect of WCM components like average collection period, inventory period, cash conversion period, and average payment period on corporate profitability measured by the net operating profit for a sample of 30 firms listed on Nairobi Stock Exchange for the periods 1993 to 2008. Both the pooled OLS and the fixed effects regression models were used. The result of the study shows that; there exists a highly significant negative relationship between the times it takes for firms to collect cash from their customers and profitability. This means that more profitable firms take the shortest time to collect cash from their customers; there exists a highly significant positive relationship between the period taken to convert inventories into sales and profitability. This means that firms which maintain sufficiently high inventory levels reduce costs of possible interruptions in the production process and loss of business due to scarcity of products. This reduces the firm supply costs and protects them against price fluctuations, and there exists a highly significant positive relationship between the time it takes the firm to pay its creditors and profitability. This means that the longer a firm takes to pay its creditors, the more profitable it is. Based on this finding, the management of a firm can create value for their shareholders by increasing inventories to a reasonable level, taking long to pay creditors to the optimum level and reducing the cash conversion cycle to its minimum.

Pass and Pike (1987) emphasized on short term finance area particularly working capital management which was given very less attention in contrast to long term investment. Working capital management played a very vital and important role in the growth of firm and in enhancement of profitability. In continuation of their work they have discussed that deficiency in the planning and control of working capital management is one of the main causes of business failure.



Makori and Jangongo (2013) analyzed the effect of working capital management firm's profitability in Kenya for the period 2003 to 2012. For this purpose, balanced panel data of five manufacturing and construction firms each which are listed on the Nairobi Security Exchange was used. The dependent variable, firm's profitability was measured by return on asset. With regard to independent variables, average collection period, inventory conversion period, average payment period and cash conversion cycle were used to measure working capital management. Pearson's correlation and ordinary least squares regression models were used to establish the relationship between working capital management and firm's profitability. The study found a negative relationship between profitability and number of day's accounts receivable and cash conversion cycle, but positive relationship between profitability and a number of days of inventory and numbers of days payable.

Lawalet al. (2015) studied by taking six selected companies in Nigeria covering the period between 2006 and 2013. A purposive sampling technique was adopted and data was analyzed using panel data least square method of working capital (ARP, APP and IHP) and profitability (ROI). They concluded that working capital management has significant impact on profitability and of manufacturing companies.

Fredrick (2013) assessed the effect of working capital management on firm's profitability a case of selected manufacturing companies in Dares Salaam. Secondary data was collected from sample of manufacturing companies in Tanzania for period of 4 years from 2008 to 2011. The study sought to find out the effect of accounts receivable days, cash conversion cycle, accounts payable in days, and inventory in on firms profitability. The study found non-significant positive relationship with accounts receivable days and cash conversion cycle profitability while inventory days and accounts payable in days had significant positive relationship. He Study concluded that working capital components directly affects the firm's profitability. Study recommended the firms to have proper management of inventory to avoid overstocking, equally accounts payable to be given consideration.

Related to Ethiopian researches Rani & Abreha (2017). Their study addressed the effect of working capital management on performance in 9 Endowment Fund for Rehabilitation of Tigray (E.F.F.O.R.T) manufacturing companies with data covering the interval 2011-2015. They used random effect estimates model of econometric model to test the influence of ACP, ICP, APP and CCC on ROA, ROE and Operating Profit Margin (OPM). Their results indicate that CCC, ACP and ICP have a significant negative impact on performance, whereas, APP affects performance significantly positively.

A research in the area specific to the city of Addis Ababa was conducted by Mengesha (2014), who studied the impact of working capital management on performance of 19 selected privatemetal manufacturers in Addis Ababa, for a thesis as a partial requirement of Master of Science in Accounting and Finance. The data used covered the interval of 2008-2012. He used ROA and Return on Investment (ROI) as measures of performance and its independent variables, except CCC, were similar to those of this study. The regression results show that all the independent variables; ICP, ACP, APP, CCC; have a negative and significant influence on the firm's financial performance.

In addition, the article of Hailu and Venkateswarlu (2016) also addressed the effect of the management of working capital on the profitability of manufacturing firms in the eastern Ethiopia region. The independent variables used in their study were similar to most of the studies in the area: ACP, ITD, APP and CCC, and their independent variable were ROA. Data that covers the five years period from 2010-2014 were collected from thirty manufacturing firms. According to the regression analysis results, CCC and ACP have a significant negative effect on Return on Asset, while ITD has a positive effect on ROA. However, the impact of APP on ROA was found to be insignificant in their work.

Ayichelet K., 2018, investigated the impact of working capital management on profitability of large taxpayer printing firms by using financial statements of large taxpayer printing firms in 26 Addis Ababa, Ethiopia from the period of 2011 to 2015. The data was analyzed using descriptive and regression analysis method. The result of this study indicated that inventory conversion period, account collection period and current ratio have significant negative relation with profitability but positive significant relationship between cash conversion cycle and profitability. However, the researcher found insignificant negative relationship between the size of firm and profitability.

Geddafa & Abera (2020) examine the impact of working capital management on the profitability of small businesses in Chiro, West Hararghe, and Ethiopia. Key informant interviews 25 and Semi-structured questionnaire surveys were used to acquire primary data. Cross-sectional data were acquired from 15 selected small enterprises using a non-probabilistic purposive sampling approach. Descriptive statistics were used to examine the cash conversion cycle on return on asset, accounts receivable period, accounts payable period, and the impact of the inventory conversion period. The study results show that there is a positive relationship between payable and accounts receivable periods and the profitability of a small firm. But, the cash conversion cycle and the inventory conversion duration have a significant negative influence on profitability.

The researcher empirically investigates the effect of working capital management on profitability of tour and travel service companies.

## **2.4 Research gap**

The researcher found that numbers of prior empirical studies on effect of working capital management and profitability have been done by different scholars in order to investigate the cause and effect between working capital management and profitability. Those studies used different measure of working capital and also various number of profitability measurement have been employed. However, the researcher realize that not only profitability has an effect on working capital management but also other related factors such as company characteristics should be taken into account is an attempt to fill this gap. In addition to this, lack of any study conducted on tour and travel service companies on effect of working capital management on profitability.

## **2.5 Conceptual framework**

Different working capital management practices have been found to affect profitability of National tour operation and travel agency plc. This study identified Cash category, inventory, Trade receivables, Debtors, Creditors and Account payable as key independent variables affecting NTO and travel agency plc profitability. The study was not intervening variables which are internal to the business and which influenced profitability as growth in sales and growth in total assets. These two variables are also partly influenced by the independent variables. The reason that the researcher does not indicated was due to time insufficient. Profitability of the company is identified as the dependent variable and is measured by return on assets (ROA). The model variables interrelationship is conceptualized below.

Dependent variable

Profitability (Return on Asset)

Independent variables

Cash on hand and at Bank

    Cash Management

Inventory

    Inventory Management

Trade receivables

    Trade Receivable Management

Debtors

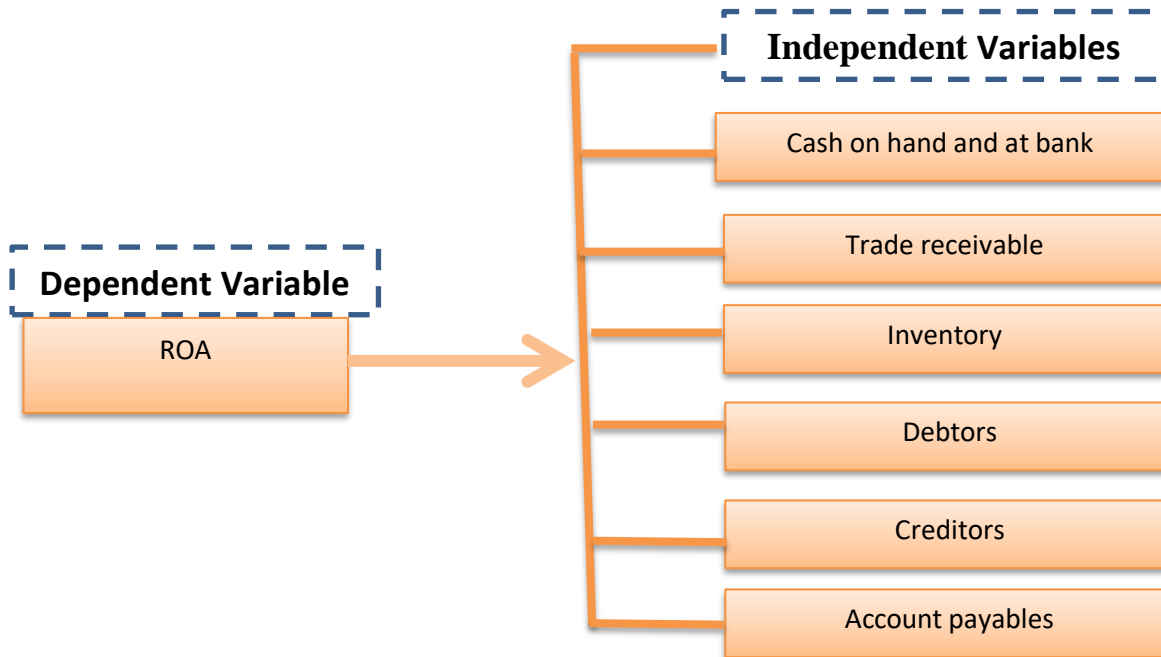
Debtors Management

Creditors

Creditors Management

Accounts payables

Account payables Management



## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Description of Study Area**

In chapter two the study explains a way to identify the theoretical, empirical and literary works of people in relation to effect of working capital management on profitability. This part will contain; research approach, research design, Sample Method, data collection type, target population, sample size, sampling technique, data type, and etc.

This chapter showing the ways in which the relevant data and its collection methods have helped prove that will indeed working capital management and profitability is necessary to tour and travel service companies in Ethiopia. Here the researcher would have been perceive effect of working capital management on profitability on the selected tour and travel service companies in Ethiopia in case of National Tour Operation and Travel Agency PLC.

#### **3.2 Research design**

According to (John et al., 2007 pp.81) research design is the blue print for fulfilling the research objectives and answering the research questions. “Research design is a master plan specifying the methods and procedures for collection and analyzing the necessary information (Pandey, 2016). This study used explanatory research studies because explanatory research design is used in hypothesis testing research studies to identify the extent and nature of cause-effect relationships between independent and dependent variables. Such study requires procedures that would not only reduce bias and increase reliability, but would have been permit drawing inferences about cause and effect.

#### **3.3 Research approach**

Furthermore, explanatory research designs will mix approach through which cause and effect relationship of one dependent and one or more independent variables were employed. More researchers was used mixed research approaches because mixing approaches afford opportunity to gain a more complete understanding of research problems in order to get the advantages of both qualitative and quantitative approaches (Doyle et al., 2009). Considering the research problem and objective quantitative research approach is found to be appropriate for this particular study.

### **3.4 Target population**

A population is desired to provide a complete set of elements (persons or objects) that possess some common characteristic will defined by the sampling criteria established by the researcher (Malhotra, Birks & Wills, 2013). The population for this study consists of only National tour operation and travel agency plc that were under operation from 2007-2022. Thus, the total number of the population of the study is 20.

### **3.5 Sampling Technique**

The researcher chooses purposive sampling technique to select tour and travel service companies in Ethiopia in case of national tour operation and travel agency plc. It is a sampling technique that is used to select samples that are full information (Patton, 1990). In addition to this, the company is giving for the researcher of 16 years its financial statement and provides the necessary information to this study. This number of samples, along with the time dimension of 20 years makes the number of observations taken for the purpose of this study was 16 .

### **3.6 Method of Data Collection**

This study have used only secondary data which were found from the financial statements of National tour operation and travel agency plc that were operating in the years from 2007 to 2022. The time frame is limited to a 16 years period because of the company have no financial statement above 16 years. Time series data was used in this research study. Other sources of secondary data that the researcher was used in the study are textbooks, previous studies, journals, web site address, and internet.

### **3.7 Method of Data Analysis**

Quantitative data have been collected and analyzed using descriptive statistics and inferential, correlation and multiple regression analysis to provide the cause and effect between dependent variable and independent variables. According to (McCartney et al., 2010) multiple regression analysis is useful in determining whether or not a particular effect is present, in measuring the magnitude of a particular effect and in forecasting what would be of a particular effect. The quantitative data that has been collected from the financial statements were analyzed by using the E-views 10 software. The E-views software was chosen to analyze the data of this study because of the Brooks (2014) review that suggests it simple, clear to understand software because it's suitable interface. The researcher has processed a descriptive statistics to describe the state of the variables in the study setting.

Multiple regression analysis has been conducted as to understand whether profitability of National tour operation and travel agency plc is affected by the management of each major component of working capital.

### **3.8 Regression Model of the Study**

$$ROA = \beta_0 + \beta_1 (COH \& Bit) - \beta_2 (Debtit) - \beta_3 (Inv it) + \beta_4 (TRit) - \beta_5 (Crit) + \beta_6 (APit) + uit$$

Where:

ROAit: Return on Assets of company i in year t;

$\beta_0$ : Intercept coefficient of the company;

$\beta_1$ :  $\beta_2$ :  $\beta_3$ :  $\beta_4$ :  $\beta_5$ :  $\beta_6$  slope coefficient of independent variables like COH & B, Debt, Inv., TR, Cr and AP;

COH & Bit: Cash on Hand and at Bank of company i in year t;

Debtit: Debtor of company i in year t;

Invit: Inventory of company i in year t;

TRit: Trade Receivable of company i in year t;

Crit: Creditors of company i in year t;

APit: Account Payable of company i in year t;

### **3.9 Ethical Consideration**

Ethics is a critical aspect of a research (Snowden, 2014). Snowden (2014) stated that ethical consideration on research is free from unfair discrimination, harming individuals, violating individual's privacy and confidentiality. The Belmont Report protocol (1979) endorsed respect, beneficence, and justice for research participants as the three top principles underlying ethical consideration of research. Kaczynski et al. (2013) stated that a researcher must treat participants ethically, gain informed consent, maintain privacy, and avoid any form of deception. Turner et al. (2012) stated that all researchers must exercise care to safeguard the rights of individuals and institutions by adhering to ethical principles and standards. Researches whose subjects are people or animals must consider the conduct of their research and give attention to the ethical issues associated with carrying out their research (Participation et.al., 2015) and Kombo and Tromp (2006).

Recognition was sought from the company general manager and finance manager who are giving the financial statement for my thesis before the conduct of the study. This was done through sending of introductory letters to the management of National tour operation and travel agency and their approval received before the researcher commencement of the data collection. The researcher also makes telephone calls and prior visits to management so that data gathering periods scheduled at convenient hours in order not to excessively interrupt their work schedules. There was no use primary data in this thesis.



# CHAPTER FOUR

## DATA ANALYSIS, PRESENTATION AND DISCUSSION

### 4.1 Introduction

This chapter includes the results of analysis various indicators of effect of working capital management on profitability national tour operation and travel agency plc with their respective working capital variables observations. After finalizing the selection of data, the researcher was performing different statistical analyses in E views to test the hypothesis. The explanatory statistics and the correlation of econometric analysis of each variable, diagnostic test employed in order to test the assumptions of CLRM with respect to select the model, regression results, and discussion of the result of regression between dependent and independent variables, comparison of the result of this study with the finding of prior empirical studies were presented.

The researcher used six independent variables and one dependent variable on profitability (Return on Asset). The variables are like cash on hand and at Bank, inventory, Trade receivables, Inventory, Debtors, Creditors and Account payables. Financial record data were collected from national tour operation and travel agency plc in annual report that converted to quarterly report on data analysis purpose. The result was presented, analyzed and interpreted as follows. In previous studies by (Charitou, et al,2010), Makori and Jagongo, 2013 they indicate that the profitability of organizations are measured by return on asset which includes cash collection cycle, number of days' account receivables are outstanding and number of days' inventory are held.

### 4.2 Results for summary of explanatory analysis

A tabular presentation from E-views software resulted the following about variable of the study. The variables are explained in terms of mean, maximum, minimum and standard deviation. The main intention of generating those explanatory statistics is to provide a portrayal of data employed in the study. It can also show as the means of screening tool of bad tempered data figure presented in the data. The explanatory statistics are presented for 16 total observations of national tour operation and travel agency plc for the period of sixteen years.

### 4.3 Tests, Results and Interpretation of Regression Analysis

In order to understand the cause and effect relationship between the independent variables, which are the components of working capital management and the control variables; with the dependent variable, return on asset, a measure of overall company profitability the researcher has developed the following explanatory model to be processed using E-Views 10 package, under a confidence level of 95%.

$$ROA_{it} = \beta_0 + \beta_1 (COH \& B_{it}) - \beta_2 (Debt_{it}) - \beta_3 (Inv_{it}) + \beta_4 (TR_{it}) - \beta_5 (Cr_{it}) + \beta_6 (AP_{it}) + \text{uit}$$

Where:

$ROA_{it}$ : Return on Assets of company  $i$  in year  $t$ ;

$\beta_0$ : Intercept coefficient of the company;

$\beta_1$ :  $\beta_2$ :  $\beta_3$ :  $\beta_4$ :  $\beta_5$ :  $\beta_6$  slope coefficient of independent variables like COH & B, Debt, Inv., TR, Cr and AP;

$COH \& B_{it}$ : Cash on Hand and at Bank of company  $i$  in year  $t$ ;

$Debt_{it}$ : Debtor of company  $i$  in year  $t$ ;

$Inv_{it}$ : Inventory of company  $i$  in year  $t$ ;

$TR_{it}$ : Trade Receivable of company  $i$  in year  $t$ ;

$Cr_{it}$ : Creditors of company  $i$  in year  $t$ ;

$AP_{it}$ : Account Payable of company  $i$  in year  $t$ ;

The diagnostic tests were undertaken to ensure that the assumptions of classical linear regression model are concerned, the coefficient estimators of both constant term and independent variables that are determined by ordinary least square have been a number of

desirable properties, and usually known as Best Linear Unbiased Estimators (BLUE). The following sections discuss results of the diagnostic tests like heteroscedasticity, serial correlation, normality test, model specification and significance of model test that were conducted to ensure whether the model fits the basic assumptions of classical linear regression model or not. The implication of the test, decision rules, test results and their discussion are discussed in the coming sections.

Five assumptions that are to be fulfilled by a certain classical linear regression model so that, the estimator in the model is equipped with the four characteristics known by the acronym BLUE (Best, Unbiased, Linear, and Estimator) Brooks (2014).

$E(u_t)=0$ ; interpreted as: the mean of the error terms is equal to zero,

$\text{var}(u_t)=\sigma^2$  interpreted as: the errors have constant and finite variance over all values of  $X_{it}$

$\text{cov}(u_t, u_s)=0$ ; interpreted as; there is a linear independence between the errors

There is no multicollinearity (the independent variables are not correlated)

$u_t \sim N(0, \sigma^2)$ ; interpreted as; the residuals are normally distributed

Source (Brooks, 2014)

The results of the diagnostic tests with respect to the regression model of this research are presented in the following sections.

#### **4.4.1 Test for $E(u_t) = 0$**

According to Brooks (2014), if the regression equation includes a constant term, then the assumption that the mean of the residuals must be equal to zero can never fail to be fulfilled. As it is to be shown in table 4.3, and the regression equation, the result of the estimation incorporates a constant (intercept) that is equal to -6.441658.

#### **4.4.2 Test for the Presence of Heteroscedasticity**

There are many different tests can perform in order to test the presence of heteroscedasticity, such as Brown-Forsythe test (Brown & Forsythe, 1974), Breusch-Pagan test (Breusch & Pagan, 1979) or White test (White, 1980). The test of heteroscedasticity is performed to detect any variance in the residuals of the regression model. The residuals of the regression model against the dependent and independent variable and fitted a linear line to the data. A slope in

the fitted line indicates the presence of heteroscedasticity. The homoscedasticity is one of the assumptions of the classical linear regression model which states that the variance of the errors must be constant. The variance of each of the disturbance terms is the same for all values of the explanatory factors, indicating homoscedasticity. The least squares estimators are unbiased. With basis in the statement by Hayes & Cai (2007, p. 710), confirming that low values of heteroscedasticity, which is also supported by Fox (cited in Rehn, 2012, p. 50), and the near-zero slopes of the fitting lines, we conclude that the data is homoscedastic. If the errors do not have a constant variance, they are said to be heteroskedastic (Brooks, 2008).

Brooks (2014) indicates that the assumption that dictates the variance of the error terms to be constant is referred to as the homoscedasticity assumption. The researcher has tested for homoscedasticity at time series data analysis. Although there are various ways to test whether the residuals either have a constant variance (homoscedastic) or they don't have a constant variance (heteroscedastic). The result of heteroscedasticity test is presented in tables 4.3.

Table 4.1 Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.120043	Prob. F(6,54)	0.0658
Obs*R-squared	11.62969	Prob. Chi-Square(6)	0.0708
Scaled explained SS	18.28241	Prob. Chi-Square(6)	0.0056

Source: output of E-views 10

As it can be seen in table 4.1 the heteroscedasticity is that the residuals are homoscedastic. The p-value shows that we need to accept the null hypothesis because a p-value of 0.0708 is greater than the significance level of 5%. Thus, the residuals don't have heteroscedasticity. Thus, the residuals of the estimation output of this study are homoscedastic. Therefore, the researcher accepts null hypothesis and the distribution of P Value around the estimated regression line is scattered. It is a good model.

### 4.4.3 Test to Detect Autocorrelation

Correlation is a way to index the degree to which two or more variables are associated with each other. Since the nature of this study is to find the cause and effect relationship between the variable. According to the researchers, the regression will be strong if the correlation is strong because, correlation identifies the interdependences between the variables.

According to Brooks (2014) autocorrelation is an instance in which there is a certain pattern in the residual series which shows that the error terms of consecutive periods fail to be independent of one another. The researcher has performed the Durbin-Watson test to detect whether or not there is a first order autocorrelation between residuals.

Table 4.2 Durbin-Watson test Rejection and Non-rejection Regions

Dependent Variable: ROA  
 Method: Least Squares  
 Date: 30/06/23 Time: 10:20  
 Sample: 2007 2022  
 Included observations: 16  
 Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.441658	4.858516	-1.325849	0.1902
ACCOUNT_PAYABLES	-1.28E-06	3.46E-07	-3.697029	0.0005
CASH_ON_HAND_AND_AT_BANK	-2.69E-05	4.67E-06	-5.772952	0.0000
CREDITORS	0.000133	9.43E-06	14.13754	0.0000
DEBTORS	-2.56E-05	1.23E-05	-2.084498	0.0416
INVENTORY	-5.15E-05	1.83E-05	-2.818671	0.0066
TRADE_RECEIVABLES	5.31E-06	5.25E-07	10.11887	0.0000

R-squared	0.864207	Mean dependent var	-8.41E-15
Adjusted R-squared	0.849913	S.D. dependent var	7.669695
S.E. of regression	8.063265	Akaike info criterion	6.154910
Sum squared resid	3705.926	Schwarz criterion	6.458503
Log likelihood	-220.6938	Hannan-Quinn criter.	6.274511
F-statistic	60.45936	Durbin-Watson stat	2.055464
Prob(F-statistic)	0.000000		

Source: output of E-views 10

Durbin-Watson is a test for first order autocorrelation. It tests only for a relationship between an error and its immediately previous value. DW is approximately equals to  $2(1 - \hat{P})$ , where  $\hat{P}$  is the estimated correlation. According to Brooks (2014), DW has 2 critical values: an upper critical value (dU) and a lower critical value (dL), and there is also an intermediate region where the null hypothesis of no autocorrelation can neither be rejected nor rejected. The researcher used values for 64 observations. The researcher does not reject or does not violate the null hypothesis because the value of DW test is 2.0555 around in the non-rejection

area. Therefore, it is no evidence of autocorrelation. This model is free from auto correlation problem.

#### **4.4.4 Test for the Presence of Normality**

The criterion of normality is when the variables in the model follow the standard normal distribution. The Jarque-Bera statistics were employed to test the variable's normality under various conditions. The histogram should be bell-shaped and the Jarque- Bera statistic should be insignificant if the series are normally distributed. As a result, if the probability of the Jarque-Bera statistic is greater than 5%, the series will be normally distributed at the 5% level of significance. As explained earlier, the fifth assumption of CLRM that the estimators of the regression output are 'BLUE' is that the error terms are expected to be normally distributed. In the following Figure shows the histogram of the residuals of research's estimation along with the values of descriptive statistics elements and the Bera-Jarque test results.

##### Histogram Normality Test

Brooks (2014) discussed that if the p-value for the Bera-Jarque statistics is greater than the level of significance, then the null hypothesis that the residuals are normally distributed will not be rejected. As it can be seen in above figure the p-value of the Bera-Jarque statistics is 0.84, which is greater than the level of significance (5%). Thus, the estimation of the regression does not have the problem of non-normality of residuals. Therefore, do not reject the null hypothesis, which means the disturbances are normally distributed. The data is good fitness for researcher model.

#### **4.5 Presentation and Interpretation of Estimation Output**

This research presents the six hypothesis of the study. The regression that has been undertaken using the E-views 10 package satisfies the five assumptions of classical linear regression model as indicated in the previous parts of this study. Thus, the estimators in the output of the regression analysis have been proven to be BLUE. The following table shows that the estimation output of the regression analysis of the effect of working capital management on profitability National tour operation and travel agency plc.

Table 4.3 Result of the Time series Least Squares Regression Analysis

Dependent Variable: ROA  
 Method: Least Squares  
 Date: 30/06/23 Time: 10:20  
 Sample: 2007 2022  
 Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.441658	4.858516	-1.325849	0.1902
ACCOUNT_PAYABLES	-1.28E-06	3.46E-07	-3.697029	0.0005
CASH_ON_HAND_AND_AT_BANK	-2.69E-05	4.67E-06	-5.772952	0.0000
CREDITORS	0.000133	9.43E-06	14.13754	0.0000
DEBTORS	-2.56E-05	1.23E-05	-2.084498	0.0416
INVENTORY	-5.15E-05	1.83E-05	-2.818671	0.0066
TRADE_RECEIVABLES	5.31E-06	5.25E-07	10.11887	0.0000

R-squared	0.864207	Mean dependent var	-8.41E-15
Adjusted R-squared	0.849913	S.D. dependent var	7.669695
S.E. of regression	8.063265	Akaike info criterion	6.154910
Sum squared resid	3705.926	Schwarz criterion	6.458503
Log likelihood	-220.6938	Hannan-Quinn criter.	6.274511
F-statistic	60.45936	Durbin-Watson stat	2.055464
Prob(F-statistic)	0.000000		

Source: output of E-views 10

#### 4.5.1 Goodness of Fit

The researcher was analyzing the outcome of the study in regards to each respective hypothesis. Discussions and reasoning regarding the implications of the rejection and non-rejection of hypotheses was presenting and the explanatory power of the model was evaluated.

Brooks (2014) extent to which the change in dependent variable is explained by the independent variables in a regression function can be measured by R-squared and Adjusted R-squared, the latter being a better measure. As it can be seen in table 4.5., the R-squared is equal to 86.42%, which shows that the independent variables in the regression function (Cash on Hand and at Bank, Debtors, Inventory, Trade Receivables, Creditors, Account Payable and explain 86.42%, of the changes in Return on Asset, the dependent variable, while a change of the remaining 13.58% of the dependent variable is explained by other variables that haven't been included as parts of the model in the study. The R- squared value is close to 1.000 which means the researcher regression model fit with the data. The regression line close with the point regression line Scatter plot. It indicates the independent variables are highly effect on the dependent variable (it indicated that the model is good fit).

As it can be seen in table 4.5., the 'adjusted R-squared' is equal to 84.99%, which shows that the independent variables in the regression function (Cash on Hand and at Bank, Debtors, Inventory, Trade Receivables, Creditors, Account Payable and explain 84.99% of the changes in Return on Asset, the dependent variable, while a change of the remaining 15.01 % of the dependent variable is explained by other variables that haven't been included as parts of the model in the study. The adjusted R-squared' value is close to 1.000 which means a model that predict variable perfectly predict the target model.

#### **4.5.2 F-test statistics**

According to Brooks (2014), the F-statistic of a regression function is a result of a null hypothesis that states: the regression coefficients of the independent variables other than the intercept equal zero. As it can be seen in table 4.5 this null is to be rejected since the p-value of the F-stat is equal to 0.000000; which is less than 0.01 in this case the sum of independent variables are high level of significant to the dependent variable. Thus, the coefficients of the regression function are to be values other than zero, with a great deal of significance. The test of each hypothesis of this research has been presented as follow.

#### **4.5.3 H1: COH &B has a positive and significant effect on ROA.**

The effect of cash on hand and at bank on return on asset is one of the least addressed issues in the literature regarding the effect of working capital management profitability. One of the aims of this research has been to identify the effect of cash on hand and at bank, which is used as a measure of company profitability, on return on asset of National tour operation and travel agency plc.

In table 4.5., since the p-value is equal to 0.0005, and a coefficient of -0.0000269, the hypothesis states that: Cash on hand and at bank has a negative and significant effect on return on asset, shall be accepted. The finding of this study indicated that cash on hand and at bank has a negative and significant effect on return on asset. This can be interpreted as: if the cash on hand and at bank of the company increases by a single unit, the return on asset would be reduced by 0.00269%. Cash on hand and at bank variable is significant for return on asset. The level of significance at 5% the p-value is 0.0000. Reject the null hypothesis because the p value of Cash on hand and at bank is significant, which means cash on hand and at bank variable affect return on Asset.



#### **4.5.4 H2: Debtors has a negative and significant effect on ROA.**

The second independent variable, Debtors is hypothesized to have a significant negative effect on return on asset. The findings presented in table 4.5 indicate that the coefficient for Debt in the regression function is equal to  $-0.0000256$  and a p-value of  $0.0416$ . This is interpreted as debt has a very significant negative effect on return on asset in National tour operation and travel agency plc at 5% significance level. Thus, the researcher doesn't have sufficient evidence to reject the second hypothesis. In addition, the coefficient of debt tells us that, keeping the other variables in the model constant, a year increase of time to collect the Debt of a period from customers reduces the return on asset of National tour operation and travel agency plc by  $0.002560\%$ .

According to the result, which indicates debtors significantly affect return on asset negatively, a fast collection of the amount of sales from credit customers increases the profitability of National tour operation and travel agency plc. This would be due to the unfavorable effect of the cost of not being able to have access to the cash from credit sales dealing with credit customers that don't pay on time. This is therefore; Debtor variable is significant for return on asset. The level of significance at 5% the p-value is  $4.16$ . Reject the null hypothesis because the p value of debtors is significant, which means debtor variable affect return on asset.

#### **4.5.5 H3: Inventory has a positive and significant effect on ROA.**

The Third independent variable of the research is inventory. As presented in table 4.5 the p-value is equal to  $0.0066$  and the coefficient is  $-0.0000515$ . This indicate that inventory have significant negative effect on the Return on Asset of National tour operation and travel agency plc at a significance level of 5%. Reject the null hypothesis because the p value of inventory is significant, which means inventory variable not affect return on asset.

#### **4.5.6 H4: Trade Receivables has a positive and significant effect on ROA.**

The fourth independent variable of the research is trade receivables. As presented in table 4.5 the p-value is equal to  $0.0000$  and the coefficient is  $0.0000053$ . This indicate that trade receivables have significant positive effect on the Return on Asset of National tour operation and travel agency plc at a significance level of 5%. Reject the null hypothesis because the p value of Trade Receivable is significant, which means Trade Receivable variable affect return on asset.

#### **4.5.7 H5: Creditors has a positive and significant effect on ROA.**

The fifth independent variable of the research is creditors. As presented in table 4.5 the p-value is equal to 0.0000 and the coefficient is 0.0001330. This indicates that creditors have significant positive effect on the Return on Asset of National tour operation and travel agency plc at a significance level of 5%. Reject the null hypothesis because the p value of creditors is significant, which means creditors variable affect return on asset.

#### **4.5.8. H6: Account Payable has a negative and significant effect on ROA**

The sixth independent variable, account payable is hypothesized to have a significant positive effect on return on asset. The findings presented in table 4.5 indicate that the coefficient for account payable in the regression function is equal to -0.0000013 and a p-value of 0.0005. This is interpreted as account payable has a very significant negative effect on return on asset in National tour operation and travel agency plc at 5% significance level. Thus, the researcher has sufficient evidence to reject the sixth hypothesis. In addition, the coefficient of account payable tells us that, keeping the other variables in the model constant, a year increase of time to pay liability reduces the return on asset of National tour operation and travel agency plc by -0.00015%. According to the result, which indicates AP significantly affects return on asset negatively, a fast payment of the amount of payable decreases the profitability of National tour operation and travel agency plc. This is therefore; AP variable is significant for return on asset. The level of significance at 5% the p-value is 0.0005. Reject the null hypothesis because the p value of AP is significant, which means account payable variable affect return on asset.

#### **4.6 Pooled OLS regression**

In the pooled OLS regression more than 10 years independent variables and dependent variables are included because these variables may have some influence on the profitability of the company. Each of the independent variables together with all the control variables is regressed against the dependent variable separately. In all the regression the models were tested for heteroscedasticity with the White's test. The presence of heteroscedasticity was corrected by running a robust regression. Also all the regressions are tested for multicollinearity using the variance inflection factor. Therefore the researcher use variance inflection factor.

### Table 4.4 Using Variance Inflation Factors (VIF)

Variance Inflation Factors  
 Date: 30/06/23 Time: 10:20  
 Sample: 2007 2022  
 Included observations: 16

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	23.60517	23.23621	NA
ACCOUNT_PAYABLES	1.20E-13	4.112745	1.990168
CASH_ON_HAND_AND _AT_BANK	2.18E-11	20.97722	3.783713
CREDITORS	8.89E-11	5.258320	4.283406
DEBTORS	1.51E-10	7.608480	5.742504
INVENTORY	3.34E-10	21.48270	2.340955
TRADE_RECEIVABLES	2.75E-13	15.19761	6.773726

Source: output of E-views 10

A centered VIF of above 10 it indicates a multicollinearity problem (O'Brien, 2007). This test was also employed by Huynh & Su (2010) and Grill, Biger and Mathur (2010). The value of centered VIF for all independent variables are less than 10 which means if the Centered VIF value greater than 10 there is Multicollinearity problem whereas less than 10 there is no Multicollinearity problem therefore all independent variables are not have multicollinearity problem.

Table 4.5 Test serial correlation of LM test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	48.99368	Prob. F(2,55)	0.0000
Obs*R-squared	40.99156	Prob. Chi-Square(2)	0.0000

Source: output of E-views 10

In the testing autocorrelation using the breush-godfrey when we seeing the probability of chi-square, it is significant (the P value of R-squared is below 5%) there for reject the null hypothesis which means there is autocorrelation in the variables of the researcher model. The reason to avoid auto coloration should be add variables, converting the variables or transfer the model. In the testing of the autocorrelation the probability of chi-square is significant.

# CHAPTER FIVE

## SUMMARY, CONCLUSIONS AND RECOMMENDATION

### 5.1 Summary

Working capital can be defined as a portion of total capital constituted by the short term elements of balance sheet, current assets and current liabilities. This paper is focus on the understanding the effect of working capital management on profitability National tour operation and travel agency plc. The literature review shows that an effective and efficient working capital management has contributions on the maximization of a companies' profit. The paper is structured based on the six components of working capital management, which are management of: cash on hand and at bank, trade receivables, inventory, debtors, creditors and accounts payable.

The gap seen in the literature is company characteristics should be taken into account is an attempt to fill this gap. In addition to this, lack of any study conducted on tour and travel service companies on effect of working capital management on profitability.

The hypothesized effect of the working capital components on return on asset are: significant cash on hand and at bank management; significant for Trade receivables management; significant for inventory management; Significant for debtors management, Significant for creditors management and significant for the management of accounts payables.

The research followed a quantitative research approach, with an explanatory research design to identify the extent and nature of the cause and effect relationships of dependent and independent variables. The researcher used purposive sampling technique. The financial statements of the company that represent the 16 years from 2007-2022 were collected. The researcher has processed the data using descriptive statistics and multiple regression models through the E-Views 10 software.

In addition to this, the R-squared is equal to 0.8642, indicates that 86.42%, of the changes in return on assets of the addressed company's can be explained by the research's independent variables, and the remaining 13.58% by other unaddressed variables. Adjusted R-squared' is equal to 0.8499, indicates that 84.99% of the changes in return on asset of the addressed company's can be explained by the researcher's independent variables, and the remaining

15.01 % of the dependent variable is explained by other variables that have not been included.

The regression used a time series least squared technique and presented that the coefficient & p-values of, cash on hand and at bank equal  $-0.0000269$  &  $0.0005$ ; debtors equal  $-0.0000256$  &  $0.0416$ ; inventory equal  $-0.0000515$  &  $0.0066$ , trade receivables equal  $0.0000053$  &  $0.0000$ , creditors equal  $0.0001330$  &  $0.0000$ , and account payables equal  $-0.0000013$  &  $0.005$  respectively. Thus, the researcher identified that all the independent variables that are used to measure the effectiveness of working capital management have significant effect on the dependent variable, return on asset.

## **5.2 Conclusion**

In order to address the determination of the effect of working capital management on profitability of National tour operation and travel agency plc, this study mainly focused on the six working capital management elements and dependent variable return on asset. The results of the regression using E-views 10 indicate that all of the independent variables have a significant negative effect on ROA.

## **5.3 Recommendations**

The essence of undertaking business researches is that their findings provide necessary information to the management of the companies or organizations in the study setting, so that they can decide on courses of actions that enhance their performance in the modern competitive business environment. Based on the findings of this research, and their implications, the management of National tour operation and travel agency plc can adjust their working capital policies in such a way that would result in the improvement and enhancement of their profitability. The researcher recommends the company to consider the following points for an efficient and effective working capital management on profitability and, thereby, the worth of their company's.

The significant negative effect of cash on hand and at bank indicates that an increase in cash on hand and at bank respect to the current liabilities would lead to a lower profitability. This is because when excess cash on hand and at bank is held it becomes idle and saved at a very low return than other options. Thus, the researcher recommends that the company to identifying opportunities so that they can invest their idle cash.

The significant negative effect of trade receivables shows that the delay of payment of accounts receivables reduces the profitability of the company. Thus, the researcher recommends that the management of the company to speed up collections of accounts receivables. This can be achieved by using methods like proper credit sales invoice and submit payment request timely to the customers; proper follow-up of accounts receivables depending to their Ledger.

The significant negative effect of inventory indicates that a higher duration before completing giving services cause lower the profitability of the company. This indicates fast sales means more sales, thus, more profit in a period. Therefore, the researcher recommends the management of national tour operation and travel agency plc to increase the speed of sales by using methods like giving discount to the customers, advertisement, increase quality of service, entertain companies and individuals who have working with them along period of time.

The significant negative effect of debtors shows that the delay of payment of accounts receivables reduces the profitability of the company. Thus, the researcher recommends that the management of the company to speed up collections of accounts receivables. This can be achieved by using methods like proper collection from the customers timely manner by delegating their employees like by ordering different supervisors like account receivables supervisors, credit and cash collectors.

The significant negative effect of creditors indicates that the longer it takes the company's to settle its liabilities; the lower will be their profitability. Therefore, the company advised to pay their liabilities as fast as possible in order to have a better profitability.

#### **5.4 Considerations for Further Studies**

This study may be activating factor for further researchers to be focused in the area of working capital management. Further studies may primarily consider achieving a research that solves enhancement of the quality of data by advising national tour operation and travel agency plc to provide their data, so that the data of the research is more appropriate. Furthermore, additional studies may be done using a data that covers more than sixteen years period in order to increase the time period that the findings represent.

On the other hand, further studies may address additional variables both in the dependent and independent variables. Additional profitability measures like gross profit margin, net profit margin, breakeven point, return on investment, return on equity, and total asset turnover shall be considered in further studies. To enhance the explanatory model processing using instead of E-view 10 package using STATA and by using confidence interval 100% instead of 95%.

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## Appendix

Year	Observation	ROA	Inventory	Debtors	Cash on Hand and at Bank	Trade Receivable	Creditors	Account Payables
2007	1	58.72	472,556.00	1,191,980.00	4,261,140.00	88,803.00	2,045,074.00	2,218,385.00
2008	2	82.12	939,536.00	2,307,136.00	4,783,643.00	-	2,586,835.00	2,227,797.00
2009	3	78.72	1,008,703.00	2,023,465.00	3,171,012.00	208,023.00	2,121,836.00	2,503,499.00
2010	4	(183.20)	452,534.80	1,500,000.00	3,530,966.72	1,756,444.32	-	5,827,656.12
2011	5	(215.72)	987,299.00	150,000.00	3,082,937.52	1,813,273.32	-	5,499,408.08
2012	6	(108.04)	604,571.76	-	2,217,003.44	10,785,585.48	-	28,091,947.80
2013	7	(95.80)	946,686.56	-	1,668,962.08	8,912,581.72	-	35,947,651.92
2014	8	(37.00)	871,313.92	-	855,428.96	20,208,144.92	-	50,651,364.76
2015	9	(59.12)	817,617.24	-	1,179,330.04	21,606,674.36	-	52,225,747.84
2016	10	(16.52)	713,328.24	-	2,390,394.72	21,798,575.44	-	3,906,237.44
2017	11	31.52	702,907.80	-	3,785,031.28	24,592,830.20	-	4,570,395.12
2018	12	18.36	1,214,500.00	-	7,354,057.28	54,848,962.64	-	20,562,072.08
2019	13	(13.92)	1,286,872.92	-	5,428,711.64	57,865,013.52	-	25,675,489.00
2020	14	(0.36)	1,275,218.64	-	3,321,498.32	42,609,019.16	-	6,680,177.56
2021	15	6.88	1,463,428.60	-	5,345,409.28	44,025,802.32	-	10,379,088.92
2022	16	2.04	1,678,972.00	-	4,945,339.32	45,680,620.56	-	14,807,635.92