WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF NEPALESE PUBLIC ENTERPRISES: A STUDY ON PUBLIC UTILITY SECTOR

A Dissertation submitted to the Office of the Dean, Faculty of Management in Partial Fulfilment of the requirements for the Master's Degree

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Certificate of Authorship

I hereby corroborate that I have researched and submitted the final draft of the dissertation entitled **"Working Capital Management and Profitability of Nepalese Public Enterprises: A Study on Public Utility Sector".** The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work have been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

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Jay Bahadur Syangtan

July, 2024

Report of Research Committee

Mr. Jay Bahadur Syangtan has defended the research proposal entitled **"Working Capital Management and Profitability of Nepalese Public Enterprises: A Study on Public Utility Sector"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Prof. Dr. Keshav Raj Joshi and submit the thesis for evaluation and viva voce examination.

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Dissertation Supervisor

Dissertation Proposal Defended Date:

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Dissertation Submitted Date:

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Approval Sheet

We have examined the dissertation entitled **"Working Capital Management and Profitability of Nepalese Public Enterprises: A Study on Public Utility Sector"** presented by Jay Bahadur Syangtan for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the dissertation is acceptable for the award of the degree.

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Acknowledgement

The positive effects of my product that add value to others fill me with immense happiness. In addition to gaining a significant amount of knowledge during the research process, this thesis is a step toward meeting the requirements for receiving a Master of Business Studies (MBS) degree. I'm proud of the self-motivated work and commitment I put into this thesis, but I also have to thank my supervisor for her great assistance, without which it would not have been complete.

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Abbreviations

ACP	Average Collection Period
ANOVA	Analysis of Variance
APP	Average Payment Period
APPS	Average Payable Period to Sales
CCC	Cash Conversion Cycle
CR	Current Ratio
CV	Coefficient of Variation
DR	Debt Ratio
FD	Financial Development
ICP	Inventory Conversion Period
NEA	Nepal Electricity Authority
NTC	Net Trade Cycle/ Nepal Telecom
ROA	Return on Assets
ROE	Return on Equity
SD	Standard Deviation
WCFP	Working Capital Financial Policy
WCM	Working Capital Management

Abstracts

The main objective of this study is to investigate the impact of working capital management on the profitability of Nepal Telecom and Nepal Electricity Authority. The descriptive and causal research design was employed in this study. This study covers ten years of data collected from annual reports of sampled organizations. The collected data has been analyzed by using some statistical tools such as mean, standard deviation, correlation analysis, ANOVA and regression analysis. The collected information and the numerical data have been analyzed by using the SPSS 27.0 version to show the data and results clearly.

In the regression analysis, The R square, or the coefficient of determination, was 0.987, meaning that the average payment period, inventory conversion period, cash conversion cycle, current ratio, and debt ratio can account for approximately 98.7% of the systematic variation in return on asset (ROA), with the remaining 0.013, or 1.3 percent, coming from the influence of the other factors. The coefficient of determination, or R square, was found to be 0.966. This indicates that the average payment period, inventory conversion period, cash conversion cycle, current ratio, and debt ratio account for approximately 96.6 percent of the systematic variation in return on equity (ROE), with the remaining portion being explained by the influence of other factors.

The return on equity and return on assets are positively impacted by the average payment time, albeit this effect is not statistically significant. The return on equity and return on assets are positively and negligibly impacted by the inventory conversion phase. The average collecting duration has a favorable but negligible impact on the return on equity and returns on assets. The return on equity and return on assets are positively impacted by the cash conversion cycle, although this effect is statistically negligible. The return on assets is positively and marginally impacted by the current ratio. On the other hand, the return on equity is significantly impacted negatively by the current ratio. The return on assets and return on equity are negatively and statistically significantly impacted by the debt ratio.

Keywords: *Working Capital, Inventory Conversion Period, Return on Assets, Return on Equity, Cash Collection Cycle*

CHAPTER I

INTRODUCTION

1.1 Background of the study

Capital or assets are to be viewed as the soul for the business association to easily maintain the business exercises. In all business associations, capital or assets are overseen from interior and outer sources. There are two utilizations of the gathered assets or capital for a business association. Fundamentally, gathered reserves are to be put resources into laying out a business association or growing the limit of the current business association. Also, capital is important to maintain the functional exercises of organizations. The interest in the foundation of the business association is to be made once in the existence of the business association while the development requires assets as per the requirement for improvement of the limit or utilization of cutting-edge innovation in the functional arrangement of the business association. The capital which is important for the business foundation is fixed capital. The functioning capital alludes to the asset which is put resources into the functional exercises of the business association. All in all, working capital is the asset which uses the proper venture or fixed resources of the business association to easily work the business exercises (Shaik et al., 2023).

The monetary exhibition of the organization association thinks about the benefit, productivity, and monetary adequacy to fulfil its liabilities. Monetary sufficiency is a proportion of an organization's capacity to take care of its liabilities both in the short and long haul. Working capital is the abundance of the organization association's ongoing resources over its ongoing liabilities in mathematical terms. The functioning capital characterizes and influences the functional level of the business association. The abundance accessibility of working capital guarantees the impediment free activity of the business action while negative for the benefit and productivity of the business association. The shortage of working capital leads the hindrances in the way of smooth activity of the functional movement yet doesn't influence the benefit and productivity. At last, suspension in functional exercises drives bringing down of the benefit of the business for a particular period. In this way, the ideal measure of working capital is important to upgrade benefit and productivity (Shaik et al., 2023).

Working capital addresses the working liquidity accessible to a business. Alongside fixed resources, for example, plants and gear, working capital is viewed as a piece of the organization's working capital, alluding to current resources. To quantify the effectiveness of an organization's functioning capital, individuals frequently utilize net working capital, which is characterized as the contrast between current resources and current liabilities. Assuming current resources are higher than current liabilities, this organization has working capital productivity, making sense of the organization's capacity for proceed with its tasks and to have adequate assets to fulfill both developing transient obligation and impending functional costs (Maharjan, 2018).

Working capital is a typical proportion of an organization's liquidity proficiency and in general wellbeing. Since it incorporates cash, stock, records of sales, creditor liabilities, the piece of obligation due in the span of one year, and other momentary records, an organization's functioning capital mirrors the consequences of a large group of organization exercises, including the executives, obligation the board, income assortment, and installments to providers. Positive working capital by and large demonstrates that an organization can take care of its transient liabilities very quickly. Negative working capital by and large demonstrates an organization can't do as such. Therefore experts are delicate to diminishes in working capital; they propose an organization is becoming overleveraged, is attempting to keep up with or develop deals, is covering bills excessively fast, or is gathering receivables too leisurely. Expansions in working capital, then again, propose the inverse. There are multiple ways of assessing an organization's functioning capital further, including computing the stock turnover proportion, the receivables proportion, days payable, the ongoing proportion, and the speedy proportion (Chaudhary, 2018).

The connection between working capital administration and productivity is vital for organizations like Nepal Telecom, a central part in the media communications area of Nepal. Working capital — including current resources less current liabilities — mirrors an organization's functional effectiveness and momentary monetary wellbeing. Effective administration of working capital guarantees that an organization keeps up with adequate progression of money to meet its momentary obligation commitments and functional requirements. For Nepal Telecom, viable working capital administration is critical to supporting help greatness and productivity in a serious market.

Receivables the executive is a basic part of working capital that straightforwardly influences benefit. High receivables turnover shows a fast change of credit into cash, which is fundamental for keeping a consistent income. Be that as it may, defers in gathering receivables can prompt a money crunch, compelling the organization to pick expensive momentary credits or to postpone pivotal instalments, the two of which can dissolve productivity. Stock administration, while less huge for administration-situated organizations like Nepal Telecom contrasted with assembling firms, actually assumes a part as far as overseeing supplies and hardware expected to keep up with and grow network framework. Productive stock administration guarantees that the organization doesn't tie up the overabundance of capital in unnecessary resources, in this way keeping a lean functional model. This productivity forestalls superfluous uses as well as amplifies the designation of assets to vital, benefit-creating exercises.

Working capital is a piece of the all-out venture by an organization and is much of the time depicted as a distinction between transient resources and momentary liabilities. Mohammad (2015) said that WCM has current resources and current liabilities. Working capital shows the progression of accessible assets that can pay for working expenses. Working capital assumes a significant part in the capital administration firm and direction (Samiloglu and Akgün, 2016).

Stock includes all merchandise and materials that are expected by organizations to make and circulate items. Hence, all unrefined components, parts, sub-congregations and completed items in the production network are viewed as stock. Powerful administration of this stock is significant for associations since it ties up capital, requires extra room, needs dealing with, may fall apart, becomes outdated, and might be lost or taken. Besides, on the off chance that a business doesn't oversee stock productively and successfully it will wind up having deficiencies of required things, extreme load of others or even things that are not needed by any stretch of the imagination (Mohubedu, 2017).

Working capital administration is of two kinds: long-lasting and brief. Super durable working capital is connected with the everyday changes in momentum resources which is additionally called gross working capital, and brief working capital is connected with the occasional impacts of current resources (Berk et al., 2008). WCM, for example, the direction and corporate administration system, is associated with managing capital administration issues, which for the most part influence the greatness and adequacy of the organization's functioning capital. To meet the momentary obligation obligations and

working expenses of the organization, WCM guarantees that organizations have huge amounts of cash. A powerful working capital administration framework is important to work on the organization's benefits. The absence of productive working capital administration diminishes the organization's benefits as well as influences the benefit circumstance (Manzoor, 2013). Since the most extreme working capital prompts the exceptional utilization of low assets and forestalls the overall activity of the inadequate capital administration organization. Associations ought to appropriately oversee working capital advantage from the opposition have better execution in unfamiliar monetary assets and diminish outside monetary issues (Mathuva, 2010).

1.2 Problem of Statement

One of the critical components in the dynamic cycle is working capital administration. Momentary liquidity of the board and working capital administration are compatible terms. Working capital is viewed as the spine and backbone of an organization and is important for all associations to easily run. Working capital levels too high or too low can prevent an association's capacity to achieve its fundamental objectives. An organization that has an excessive number of current resources might have to utilize all the more long-haul subsidizing, which is more costly than current liabilities. Be that as it may, a low measure of current resources could make the organization in fact become wiped out. In this manner, keeping an ideal measure of working capital is the point of working capital administration, which includes dealing with the organization's ongoing resources and current commitments. Deciding the exact working capital prerequisites of a given organization can challenge.

Since cash inflows are variable, an organization's functioning capital prerequisites can contrast. They find it hard to oversee working capital in this present circumstance. All ongoing resource types ought to be overseen appropriately and monetarily because functioning capital decides the size of the speculation. This is because choices on working capital affect an association's drawn-out presence as well as its momentary benefit. The essential objective of working capital administration is to find some kind of harmony between the three working capital extents to help the proficient and consistent running of day-to-day business activities adequately. They are chance, benefit, and liquidity.

Working capital is a critical part of money that significantly affects liquidity, which is considered an organization's soul and is crucial for keeping things moving along as planned.

Huge possessions of current resources limit chance and lift the company's general productivity, however, they likewise consume more finances that could be used for different purposes and have a high open-door cost.

Deficient interest in current resources, then again, could bring about missed opportunities for benefit and even imperil the association's dissolvability on the off chance that it can't satisfy development commitments immediately, in this way hurting the organization's standing. In light of high conveying costs and liquidity risk, having excessively or too minimal working capital is certainly not a smart thought. Both the activity of the market and the progression of creation are hampered by inadequate working capital. Hence, by continuing to work capital at the ideal level, the two situations ought to be stayed away from. Therefore, this study presents and analyzes the working capital position and shows the problems this company faces by analyzing the following queries

- What is the working capital and profitability current position of Nepalese public enterprises?
- What is the relationship between working capital and the profitability of Nepalese public enterprises?
- How does working capital affect the profitability of Nepalese public enterprises?

1.3 Objectives of Study

The objectives of the impact of working capital management on the profitability of Nepalese public enterprises are as follows;

- To analyse the existing working capital position and the profitability of Nepalese public enterprises.
- To examine the relationship between working capital and profitability of Nepalese public enterprises.
- To investigate the impact of working capital management on the profitability of Nepalese public enterprises.

1.4 Rationale of the Study

Working capital management is an integral aspect of the financial decision-making process within a business enterprise. Ineffective management of working capital can detrimentally impact liquidity, turnover, and profitability. Periodic assessment of a company's financial position is essential for ensuring the smooth operation of an enterprise. Working capital

management helps pinpoint the major strengths and weaknesses of a business, indicating whether a firm possesses sufficient funds to meet its obligations, maintains a reasonable accounts receivable collection period, employs an effective inventory management policy, and has enough plant, property, and equipment, as well as a sound capital structure—all vital components for maximizing shareholder wealth. Additionally, working capital management serves as a tool to evaluate a firm's ongoing viability and the adequacy of returns on investment relative to the risks involved.

Given the significant impact of investment in working capital, poor management practices in this area can severely affect enterprises. Therefore, Nepal Telecom has been chosen as the subject for this study, which focuses on analyzing the methods it employs and the challenges it faces in managing its current assets and current liabilities. This research will not only provide literature for future studies on this topic but will also offer recommendations that could help the organization refine its policies and strategies to be more practical and scientifically sound.

1.5 Limitations of the Study

The limitations of the study of working capital are as follows:

- This study only considers the working capital management of Nepal Telecom and Nepal Electricity Authority.
- This study covers only ten years of data starting from 2013/2014 to 2022/2023 AD.
- This study is only based on the secondary data.
- In this study Nepal Doorsanchar Company Limited and Nepal Electricity Authority are taken as samples from the public utility sector.
- The indicators of profitability are return on assets and return on equity in this research.

CHAPTER II

LITERATURE REVIEW

Reviewing the literature is an essential part of any research, providing valuable insights into existing findings in the field and helping to avoid redundant investigations. This section of the study presents an overview of the relevant literature, encompassing both published and unpublished sources like books, journals, newspapers, theses, dissertations, company reports, and government publications. By analyzing these sources, it also sheds light on the findings of previous studies.

2.1 Theoretical Review

2.1.1 Concept of working capital

The amount of money required to finance the company's existing assets is known as working capital. Considering that current assets are typically turned into cash in less than a year. Working capital facilitates rotation through various current assets in less than a year. The money is continuously converted into cash and cash outflow in exchange for further current assets after it has been turned into current assets (Weston, 1981). Unlike inventory and account receivables, which are not regarded as totally liquid assets, cash and marketable securities are. In less than a year, they can, however, be liquidated as and when required. Similarly, all current liabilities, including trade creditors, accounts payable, short-term bank loans, unpaid bills, and other debts, must be settled within a year of their becoming due Poudel (2019).

Determining the firm's amount of investment in current assets and the current assets' financing pattern are key components of working capital management (Baral et al., 2009). It encompasses all short-term cash flow decisions made by a business, with a focus on financing and investment management for current assets. Managing current assets and current liabilities to maintain an ideal amount of working capital is the fundamental goal of working capital management. Maintaining a trade-off between profitability and costs related to the firm's current asset investment and financing policies is crucial for optimal working capital (Poudel, 2019).

The money required to run a business on a daily basis is known as working capital. As a result, there is a danger that people will misunderstand the word "working capital." A liquidity crisis might have been averted if management of commercial firms had understood

the idea of working capital clearly. A lack of understanding of working capital principles has frequently resulted in numerous financial problems. Two ideas of working capital exist.

- Gross concept
- Net concept

2.1.1.1 Gross concept of working capital

All of the current assets are included in the gross notion of working capital. It's the entire amount of money put into assets that are now in use. Current assets are those that, in the regular course of business, can be quickly turned into cash—typically within the course of one accounting year. Cash on hand, cash in the bank, various inventories or stock held by creditors, short-term investments, loans and advances, accumulated income, etc. are examples of current assets (Chaudhary, 2018).

The genuine functioning of public enterprise, according to proponents of this idea, depends only on available resources. Furthermore, current assets will be assumed into working capital if fixed assets suggest fixed capital, according to logical reasoning. Current assets were referred to by Adam Smith as "circulating capital." According to Adam Smith, a merchant's goods don't bring in any money until they are sold for cash, and that cash only makes a small amount until it is swapped for more commodities. His capital is constantly leaving his possessions and returning to him in different forms; only this kind of circulation or successive exchange will be able to provide him with any kind of benefit. It would be more appropriate to refer to such capital as circulating capital. Working capital is naturally focused mainly on current assets because it is assessed based solely on how current assets are used. When evaluating the turnover of current assets, current liabilities are excluded from the equation. However, the concept's reformer claims that this idea is lacking on its own. If public companies do not take current liabilities into account, their working capital management will lead to incorrect conclusions. Once more, if they rely on this idea, the company's actual financial situation won't be revealed (Poudel, 2019).

2.1.1.2 Net Concept of Working Capital

The gap between current assets and current liabilities is what the net concept defines as net working capital. The operation cycle of a corporation depends on both current assets and current liabilities, so it is necessary to take into account both current obligations as well as current assets. Working capital comprises all assets that, in the regular course of business, are returned to the company as cash in a brief amount of time because it is a subset of

current assets. Current assets also include regular investments that are easily convertible into cash when needed. The obligations that mature within a year are included in the current liabilities. Public companies' working capital management produces deceptive outcomes if current liabilities are ignored (Poudel, 2019).

There are two definitions for the term net working capital. First off, the difference between current assets and current liabilities is the most widely used definition of net working capital. The last alternative definition of working capital is the amount of current assets of a company that is funded by long-term debt. Current liabilities are debts that are meant to be settled out of current assets or business income during the regular course of business and typically within a single accounting year. Bills payable, various creditors, accounts payable, accrued outstanding expenses, short-term loans, benefits and deposits, dividends payable, bank overdrafts, etc. are examples of current obligations (Poudel, 2019).

While the net working capital notion is an accounting concept of working capital, the gross concept is a financial or going concern concept. Ensuring an appropriate level of working capital in accordance with business organizations' requirements is crucial for effective working capital management. It ought to be distributed and in good health. The correct determination and allocation of working capital to its various parts, as well as its effective control and regular evaluation, are necessary for a sufficient, healthy, and efficient flow of working capital (Chaudhary, 2018).

2.1.2 Need for Working Capital

The majority of businesses want to maximize shareholder wealth. The business should generate enough revenue from its operations. Among other factors, the volume of sales determines how much profit can be made naturally. In particular, the working capital needed to pay for labour, salaries, rent, power, advertising, and other costs associated with sales (Maharjan, 2018). These are the categories into which working capital needs can be divided:

- **The transactional motive:** A company needs working capital for daily operations and keeps cash on hand for operational flexibility. Ongoing billing cycles make it easier to control cash flow in tandem, but seasonal variations could call for larger cash buffers. Marketable securities ensure continuous business operations by acting as short-term investments for rapid cash conversion (Maharjan, 2018).

- **The precautionary motive:** The need to retain cash and inventories serves as a precaution against the risk of erratic shifts in supply and demand as well as other factors like strikes, the loss of significant clients, an unanticipated lag in accounts receivable collection, the cancellation of some orders for goods, and other emergencies. The company therefore requires working capital to cover any unforeseen expenses down the road (Maharjan, 2018).
- **The speculative motive:** The term "speculative motive" describes a company's intention to seize the following opportunities: Possibilities to invest in profitable ventures, buy raw materials at a discount in exchange for quick cash payments, speculate on interest rates, make purchases at favourable prices, etc.

To address the issue caused by the delayed recovery of cash against products supplied, working capital in the form of current assets is required. To maintain sales activity, there must be adequate working capital.

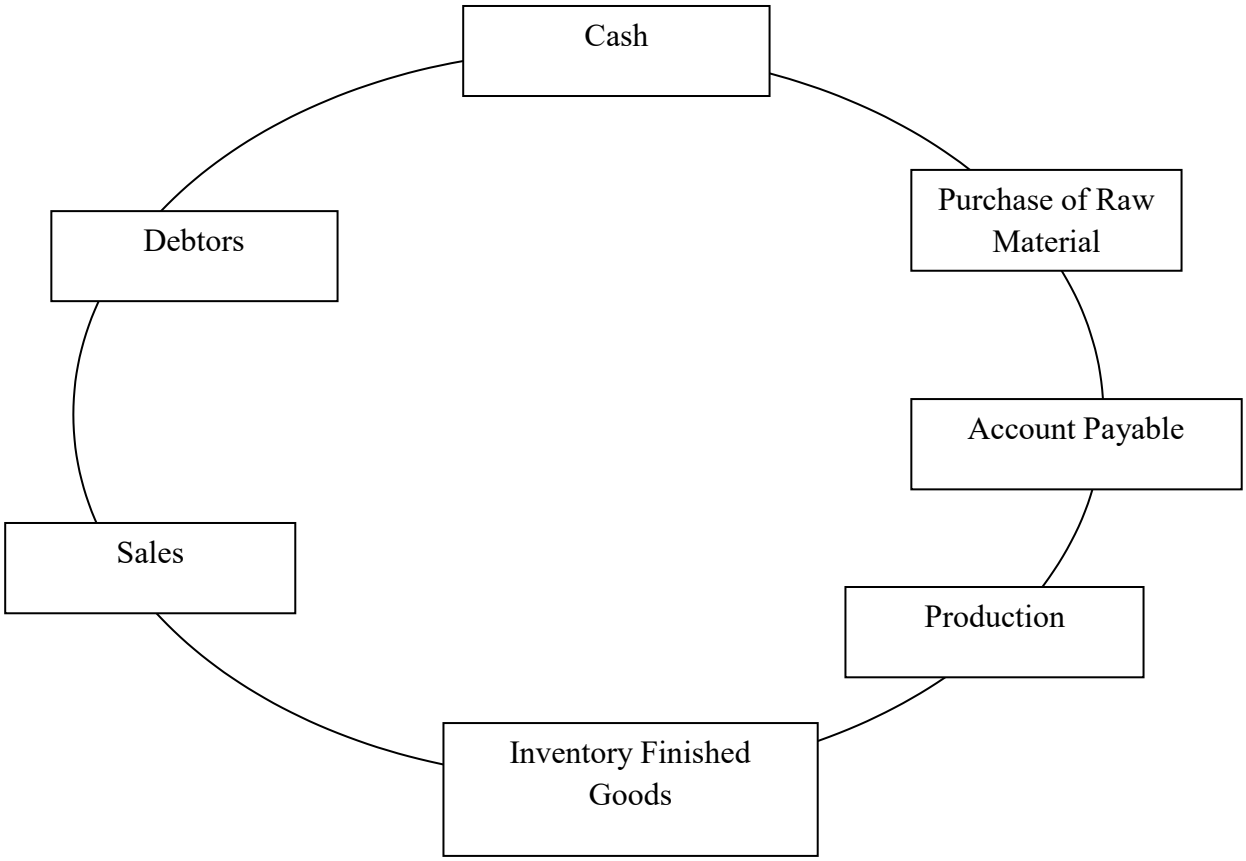
2.1.3 Nature of Working Capital

Focused on the issue that emerges while trying to control current and current liabilities is working management. The way we think about working capital has evolved. It was once thought of as a short-term creditors' margin safety. i.e., paying bills when they are due; working capital is necessary to maintain a business's daily operations and shouldn't be used only as a safety net for short-term creditors (Jain & Narang, 1989).

The characteristics of the organization's cash cycle or operation cycle are used to explain the nature of working capital. The amount of time a business needs to convert sales from resources into inventories and then back into cash is known as the operation cycle (Pandey, 1995).

The Working Capital Cycle can be shown as follows:

Figure 1 Working Capital Cycle



(Reference: Pandey, 1995)

In order to reduce the requirement of working capital, the management should try to reduce the period of the operating cycle.

2.1.4 Determinations of Working Capital

The working capital needs of the company cannot be calculated using a formula. The working capital required by the company is influenced by several things. Working capital needs must be met in an insufficient amount in order to ensure both the successful operation of business enterprises and the maximum profit. The total working capital demand is influenced by several different factors. But working capital is determined by the following factors: (K.C., 2010).

- **Nature and size of business:** The quantity of working capital needed depends on the type and scale of the business. When it comes to tracing and manufacturing concerns, working capital requirements can be higher than those of public utility concerns due to the former's need to make larger investments in debtors and inventories.

- **Production policy:** These regulations have a significant effect on working capital levels. Production policies play a major role in determining the quantity of inventories. Such labor-intensive industries may need a higher level of working capital. Working capital may be smaller than in businesses where the majority of the work is completed by automated machinery.
- **Manufacturing cycle:** The manufacturing or production cycle has an impact on an organization's working capital needs. It alludes to the amount of time needed to transform raw materials into completed goods. Funds are held up throughout the manufacturing cycle. The longer the manufacturing cycle, the higher the need for working capital, and vice versa
- **Credit policy:** A company's working capital is impacted by its credit policies as well. The amount of working capital needed varies with the sales term. Depending on their creditworthiness, various consumers may adhere to different terms. The company will need additional working capital if it adheres to the liberal lending policy. On the other hand, a company that adheres to strict credit policies needs less operating capital.
- **Availability of credit:** An additional aspect influencing the working capital requirements is the availability of credit facilities. Open-minded loan arrangements that benefit the creditors will result in the firm requiring less working capital. Put otherwise, the company can obtain a credit facility with ease and on advantageous terms. Therefore, less working capital is needed to manage the business; otherwise, more working capital is needed to run the business efficiently.
- **Growth and expansion:** An additional aspect influencing the working capital requirements is the availability of credit facilities. Open-minded loan arrangements that benefit the creditors will result in the firm requiring less working capital. Put otherwise, the company can obtain a credit facility with ease and on advantageous terms. Therefore, less working capital is needed to manage the business; otherwise, more working capital is needed to run the business efficiently.
- **Price level change:** Changes in pricing levels have an impact on a company's overall working capital needs as well; when prices rise, a company needs to maintain a larger level of working capital. because the rising cost of existing assets means that the same level of assets requires more capital. In conclusion, based on the specifics of the operation of the firm in question as well as other pertinent factors, the effects of

adjusting the price level on working capital position will vary from company to company.

- **Operating efficiently:** Another significant element that affects the company's need for working capital is operating efficiency. It alludes to the economical and effective use of the resources that are accessible. Therefore, through operating efficiency, a finance manager can support a healthy working capital position. A company requires less working capital if its operating efficiency is high, and vice versa.
- **Profit margin:** Each company has a different profit margin level. It is dependent on the type and caliber of the product, marketing strategy, and market monopoly strength. The company makes a big profit if it sells high-quality goods, manages its marketing well, and has monopoly strength in the industry. Because it adds to the total amount of working capital by creating more internal money, profit is the source of working capital.
- **Level of taxes:** Working capital needs are also influenced by taxation levels. The current tax regulation determines the amount of taxes that must be paid in advance. However, the company's profit is neither predictable nor steady. Cash payment is required for tax liabilities in terms of short-term liquidity. Thus, one of the crucial components of working capital planning is the tax amount provision. The working capital must increase if the tax liability rises. (K.C., 2010).

Risk and profitability are traded off in these decisions. All other things being equal, the bigger the relative amount of liquid assets, the lower the risk of cash shortage and profitability. All other things being equal, the risk of cash bankruptcy decreases with the length of the composite maturity schedule of the instruments used to fund the company.

2.1.5 Current Assets Investment Policy

The policy pertaining to the entire quantity of current assets to be carried in order to support the specified level of sales is known as the current assets investment policy. Three distinct current asset investment strategies exist: The Mean and Moderate Policy, the Fat Cat Policy, and the Loan Policy (Weston et. all, 1996).

- **Fat Cat Policy**

The term "Limited Current Assets Investment Policy" refers to this. As per this policy, the company maintains a comparatively substantial quantity of cash, marketable securities, inventory, and accounts receivable to sustain a specific sales volume. Longer cycles for cash conversion and inventories are the result of this policy. The loose credit policy also

results in a lengthier period of time needed to recover accounts receivable. Consequently, the lowest predicted return on investment is offered by this insurance.

- **Lean and Mean Policy**

The Restricted Current Assets Investment Policy is another name for this. A company that follows a lean and mean philosophy keeps the bare minimum of cash, marketable securities, inventory, and receivables to cover a specific level of sales. The inventory and receivable conversion cycle is generally shortened by this policy. By following this approach, the company accepts the risk of losing revenue and permits a strict credit policy (Weston et. all, 1996).

- **Moderate Policy**

A company that maintains a moderate policy holds the quantity of current assets that falls between relaxed and restricted policies. This policy has a modest level of risk and return.

2.1.6 Current Assets Financing Policy

It has to do with how current assets are financed, both temporary and permanent. Funds collected from various sources are used to finance current assets. However, the financing of any asset is impacted by risk and cost. Therefore, the sources of funding should be explicitly stated in the current assets financing policy. There are three types of current asset financing policies: matching, aggressive, and conservative (Rawal, 2021).

- **Aggressive Policy**

The company has an aggressive program whereby it uses short-term financing for some of its permanent current assets and long-term financing for the remaining portion. Put another way, the company uses short-term borrowing to fund both temporary and partially permanent current assets. Figure 4 illustrates how 50% of the permanent current assets are financed by short-term financing (Chaudhary, 2018).

- **Lean and mean policy**

In general, interest rates rise with time; that is, the lower the interest rate, the shorter the duration. This is a result of the fact that lenders are risk-averse and that risk often rises with loan term duration. Therefore, under financing, the company has the risk of having to repeat the borrowing if it uses short-term financing rather than long-term financing to finance its permanent current assets. The company is taking some risks by continuing to finance this.

This is because future costs will likely vary greatly, and it can be challenging for the company to raise money during lean times. In summary, this strategy has a low liquidity position, a higher risk, and a larger return (Rawal, 2021).

- **Conservative Policy**

According to this approach, the company finances a portion of the short-term current assets as well as fixed and permanent assets through long-term financing. High levels of current assets, low levels of current liabilities, a long conversion cycle, and higher interest costs are the results of this approach. In comparison to an aggressive policy, there is less risk and return and a higher liquidity position. The risk-averse management adheres to the guidelines below.

- **Moderate Policy**

According to this approach, the company uses short-term financing for temporary assets and long-term financing for permanent assets. It falls between policies that are aggressive and conservative. It produces current asset and liability levels that are neither excessive nor low. Figure 2 illustrates how long-term financing is used for long-term working capital and short-term borrowing for temporary working capital. Thus, this policy has zero working capital (Chaudhary, 2018).

2.1.6 Types of working capital

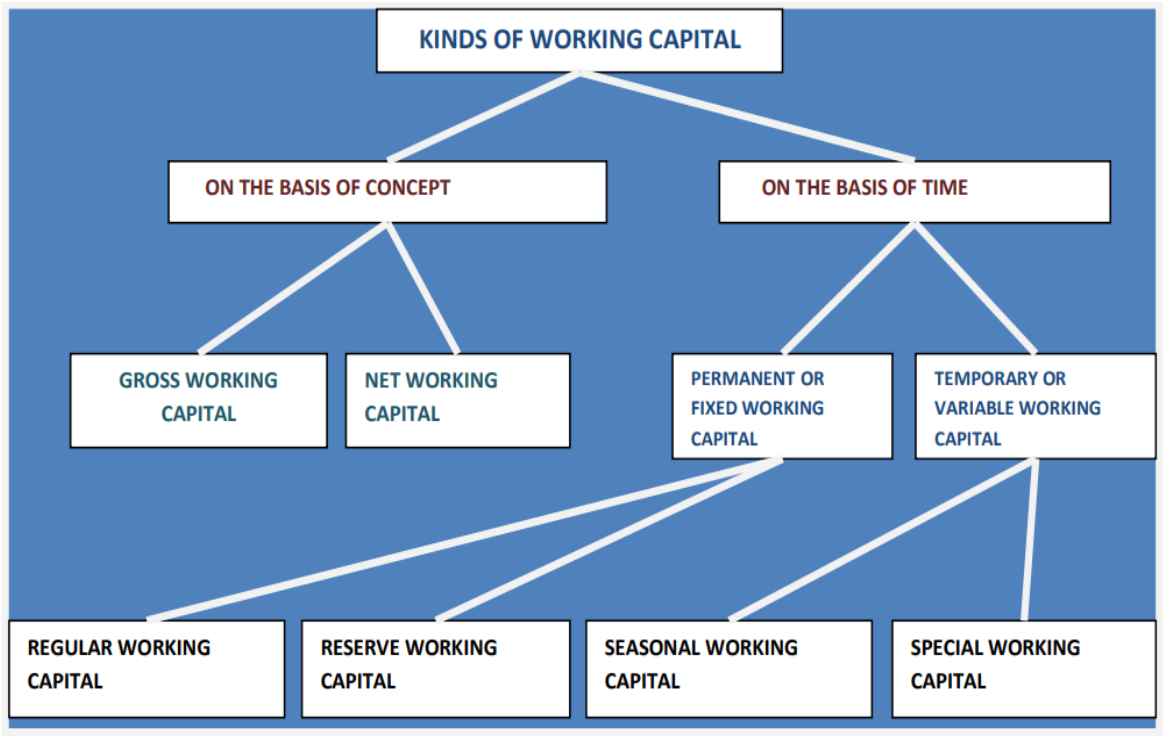
In general, a company with higher net working capital is more liquid and less likely to be technically insolvent than a company with less net working capital, which increases the risk of bankruptcy. Chance, liquidity, and net working capital are all interrelated because a company's likelihood of going bankrupt always decreases as its liquidity or net working capital increases. An essential duty of a finance manager is to ascertain the amount of working capital required to fund a company. Money can be raised from two distinct sources—referred to as short-term and long-term sources, respectively—to finance present assets (Chaurasiya, 2023).

A company's finance managers determine the financial mix by making choices related to the previously described subject. The financial mix is made up of three basic strategies: conservatism, hedging, and the trade-off between these two philosophies. The conservative working capital approach proposes that investments in current assets should be financed with long-term sources of funding and supports financing all working capital

requirements—apart from emergencies—with long-term sources of funding. Short-term financial options should be used to meet seasonal and transient working capital needs. Hedging is associated with high risk and high return, according to the working capital trade-off method, while the conservative approach is associated with low risk and poor return. A balance between these two extreme tactics and a fair financing mix of sources for working capital requirements are required because, of course, neither of these strategies would be effective for managing working capital (Chaurasiya, 2023).

Working capital may be classified into two ways;

Figure 2: Types of working capital



(Sources: Chaurasiya, 2023)

2.2 Empirical Review

Chaurasiya (2023) conducted research on the impact of working capital management on the profitability of Bharat Sanchar Nigam Limited. The main objective of the study was to study the impact of different components of working capital on the profit of the firms. The Altman Z-score was used to analyze the data. The outcome showed that a company's financial performance can be raised through the effective and efficient management of

working capital. This investigation has shown that the company's working capital is not in a favourable position at any given time.

Shaik et al. (2023) conducted research on the working capital and financial performance in the energy sector of Saudi Arabia: moderating role of leverage. The main purpose of the study was to examine the effect of working capital on the performance of the Saudi Arabian energy sector. The researcher used pooled regression and panel data regression analysis to analyze the data. The results show that leverage has a large detrimental effect on a company's performance whereas working capital has a huge positive impact. Corporate performance is significantly harmed by working capital, even when the effect is moderated by an interaction variable.

Urachmansyah et al. (2023) conducted research on the working capital management and performance of telecommunication companies on ASZEAN-4: the role of financial development. The main purpose of the study was to analyze the influence of internal factors (working capital) and external (financial development) on the profitability of telecommunication companies in ASEAN-4. The researcher used panel data regression analysis to analyze the data. The findings showed that while working capital financial policy (WCFP) and average payable period to sales (APPS) have an impact on short-term profitability (ROA) and long-term profitability (Tobin's Q), net trade cycle (NTC) has a positive impact on long-term profitability (Tobin's Q). The relationship between working capital management (policy and management) and short- and long-term performance (ROA and Tobin's Q) is moderated by financial development (FD).

Aldubhani et al. (2022) analyzed the impact of working capital management on profitability: evidence from listed companies in Qatar. The main objective of the study was to find out whether working capital management policies affect the profitability of manufacturing companies. The multiple linear regression analysis used to analyze the data in this study. The study discovered that more profitable businesses have quicker cash conversion cycles and receivables collection timeframes. Higher profitability of the companies is correlated with longer times for accounts payable and inventory turnover.

Bansal and Drishti (2022) investigated on the impact of working capital management on profitability: a study on the Indian telecom sector. The main purpose of the study was to find the relationship between working capital management (WCM) ratios and firm profitability in the telecom industry of India. Descriptive statistics, correlation and

regression analysis were used to analyze the data in this study. The outcome demonstrated that, with the exception of the debt ratio, whose p-value exceeds the significant value, all of the independent variable's p-values had significant values less than 0.05, indicating an insignificant association between the debt ratio and return on asset.

Hasbiah (2022) studied the analysis of liquidity, leverage, and activity ratio on the financial profitability of the Indonesian telecommunication industry. The main objective of the study was to analyze the effect of liquidity, leverage, and activity on the profitability of telecommunication companies listed on the Indonesian exchange. The researcher used multiple regression, multicollinearity test and autocorrelation analysis were used to analyze the data. The study's findings demonstrate that activity, leverage, and liquidity all significantly impact profitability. Leverage has a major negative impact on profitability, activity has a significant positive impact on profitability, and liquidity has a negative and significant negative impact on profitability.

Ncube and Chinjoya (2022) conducted research on the effect of COVID-19 pandemic on working capital management of companies in the telecommunications sector in Zimbabwe. The main purpose of the study was to explore the effect of the COVID-19 pandemic on the working capital of organization in the telecommunication sector in Zimbabwe. The researcher used descriptive statistics and regression to analyze the data. The study found that a higher degree of implementation of HRM, finance, marketing, and operations management strategies had been made by firms. Certain methods were put in place as a result of the organizations' own necessity for existence, rather than necessarily being mandated by the government. The findings showed that while cash management and accounts payable were unaffected by Covid-19 working capital methods, inventory and accounts receivable were statistically significantly affected.

Habibniya et al. (2022) conducted research on the impact of capital structure on the profitability of the telecom industry in the United States. The main objective of the study was to investigate the impact of capital structure on the profitability of the telecom industry. The researcher used pooled panel regression analysis, univariate analysis, correlation and descriptive statistics were used to analyze the data. The findings showed that ROA is significantly impacted by both the ratio of total equity to total assets and the ratio of total liabilities to total assets. Nevertheless, ROE is unaffected by the ratios of total liabilities to total assets and total equity to total assets.

Raval et al. (2021) conducted research on a diagnostic study of the impact of working capital management on the profitability of Indian companies in the telecommunication sector. The main purpose of the study was to examine the performance of working capital management of telecommunication. In this study, correlation, descriptive statistics and regression analysis were used to analyze the data. It is observed that the return on equity and the current ratio have a negative correlation and that the current ratio has a moderate impact on profitability. The remaining factors, which include the ratio of debtors to creditors and inventories, are determined to have little bearing on the enterprise's profitability.

Hossain (2020) analyzed the effect of working capital management on profitability: a study on manufacturing companies in Bangladesh. The main purpose was to analyze the impact of efficient working capital management on the profitability of the manufacturing firm. The ordinary least squares regression was the statistical tool used to analyze the data. the result found that it was shown that there is a substantial negative link between ROA and CCC, ACP, and between ROE and CCC, APP. Reducing the average payment duration, average collection period and cash conversion cycle might help manufacturing companies become more profitable. It also showed that ROA and ROE had a positive relationship with ICP.

Khan and Raj (2020) investigated on the liquidity profitability analysis and prediction of bankruptcy- a study of selected telecom companies. The main purpose of the study was to analyze the financial health of the Indian telecom industry and predict the bankruptcy of selected companies. The researcher used the Altman Z-score to analyze the data. The study found that the majority of telecom companies in the Indian telecom market perform poorly in terms of liquidity and profitability, placing them in the "Grey" zone of the Altman Z-score model, which is not good news for the sector. The Z-score for liquidity was significantly impacted, however, the Z-score for profitability was not much impacted.

Khan et al. (2020) investigated on the impact of working capital management on a firm’s profitability (a case of the telecom sector in Pakistan). The main purpose of the study was to evaluate the effect of working capital management on the profitability of the telecom sector in Pakistan. The researcher used descriptive statistics, correlation analysis, ANOVA and regression analysis to analyze the data. The result of the regression model identified that According to the regression model's results, the most important variables are the average receivable collection period (ACP), inventory conversion period (ICP), average payment period (APP), and cash conversion cycle (CCC). The current study's conclusion

indicated that working capital management and the profitability of the company have a negative and significant link.

Khan et al. (2018) conducted research on the panel data analysis of profitability determinants: evidence from Indian telecom companies. The main purpose of the study was to study the financial health of companies belonging to the Indian telecom industry. The researcher used descriptive statistics, Pairwise correlation analysis, analysis of multicollinearity and panel regression analysis were used to analyze the data. The findings of the study revealed that while leverage has an inverse relationship with profitability, size and growth have a direct association. Z-score, NDTS, liquidity, and tangibleness all point to a negligible effect on profitability.

Monga and Khandelwal (2018) investigated the impact of capital structure on profitability with special references to the telecom sector. The main purpose of the study was to ascertain the impact of capital structure on a firm's profitability. The researcher used regression and correlation to analyze the data. Results of the analysis showed that except the relationship between capital structure and gross profit ratio, there is a negative correlation between capital structure and profitability.

Purwoto and Estining Rahayu (2018) conducted research on the analysis of working capital management of industry practices in Indonesia. The main purpose of the study was to reveal an in-depth description of working management among industries Indonesian public companies. The researcher used univariate analysis, comparative analysis and graphical analysis to analyze the data. This research showed that the majority of Indonesia's publicly traded corporations have positive working capital needs. Additionally, this study highlights the notable variations in working capital management metrics throughout numerous businesses. It is anticipated that the outcome will further the growth of Indonesian business management and literature. Key words: long-term viability, working capital management, efficiency.

Gautam Sharma and Kaur (2016) conducted a research on the working capital management and its impact on the profitability: a case study of Bharti Airtel Telecom Company. The main objective of the study was to examine the working capital performance of Bharti Airtel. The researcher used correlation analysis and Motaals test to analyze the data. The outcome showed that over the study period, there was a considerable improvement in liquidity performance as demonstrated by the Motaals test as well. The study reveals a

noteworthy inverse correlation between liquidity and profitability, suggesting that Bharti Airtel has sustained a post-optimal level of liquidity, also known as excess liquidity, throughout the examined period.

Khan and Safiuddin (2016) conducted research on the liquidity and profitability performance analysis of selected telecom companies. The main aim of the study was to analyze the liquidity and profitability performance of selected Indian telecom companies. The researcher used descriptive statistics to analyze the data. In order to assess the performance and determine the financial health of the businesses functioning inside one of the most dynamic industries in the Indian economy, the study may employ ratios and indicators through an empirical technique.

Mahato and Jagannathan (2016) investigated on the impact of working capital management on profitability: in the Indian telecom sector. The main purpose of the study was to study the impact of working capital management on the profitability of the telecom industry. The researcher used descriptive statistics, correlation analysis and ordinary least square regression analysis to analyze the data. The findings indicated that while ROA has a positive association with APP, Debt ratio, and Firm size, it has a negative relationship with ICP, ACP, CCC, and Current ratio. One of India's main industries is the telecom sector.

Table 1

Summary Table

Sources	**Topic**	**Objective**	**Methodology**	**Findings**
Chaurasiya, 2023	The impact of working capital management on profitability of Bharat Sanchar Nigam Limited	To study the impact of different components of working capital on the profits of the firm	Altman Z-score	The outcome showed that a company's financial performance can be raised through the effective and efficient management of working capital. This investigation has shown that the company's working capital is not in a

				favourable position at any given time.
Shaik et al., 2023	Working capital and financial performance in the energy sector of Saudi Arabia: moderating role of leverage	To examine the effect of working capital on the performance of the Saudi Arabian energy sector	Pooled Regression analysis, Panel Data Regression Analysis	The results show that leverage has a large detrimental effect on a company's performance whereas working capital has a huge positive impact. Corporate performance is significantly harmed by working capital, even when the effect is moderated by an interaction variable.
Urachmansyah et al., 2023	Working capital management and Performance of telecommunication companies in ASEAN-4: the role of Financial development	To analyze the influence of internal factors (Working capital) and external (financial development) on the profitability of telecommunication companies in ASEAN-4	Panel Data Regression Analysis	The findings showed that while working capital financial policy (WCFP) and average payable period to sales (APPS) have an impact on short-term profitability (ROA) and long-term profitability (Tobin's Q), net trade cycle (NTC) has a positive impact on long-term profitability (Tobin's Q). The relationship between working capital management

				(policy and management) and short- and long-term performance (ROA and Tobin's Q) is moderated by financial development (FD).
Aldubhani et al. 2022	Impact of working capital management on profitability: evidence from listed companies in Qatar	To find out whether working capital management policies affect the profitability of manufacturing companies	Multiple regression analysis	The study discovered that more profitable businesses have quicker cash conversion cycles and receivables collection timeframes. Higher profitability of the companies is correlated with longer times for accounts payable and inventory turnover.
Bansal and Drishti, 2022	Impact of working capital management on profitability: a study on Indian telecom sector	To find the relationship between working capital management (WCM) ratios and firm profitability in the telecom industry of India	Descriptive Statistics, Correlation Analysis, T-test	The outcome demonstrated that, with the exception of the debt ratio, whose p-value exceeds the significant value, all of the independent variable's p-values had significant values less than 0.05, indicating an insignificant association between

				the debt ratio and return on asset.
Hasbiah, 2022	Analysis of liquidity, leverage, and activity ratio on the financial profitability of the Indonesian telecommunication industry	To analyze the effect of liquidity, leverage, and activity on the profitability of telecommunication companies listed on the Indonesian stock exchange	Multiple Regression, Multicollinearity Test, Autocorrelation Analysis	The study's findings demonstrate that activity, leverage, and liquidity all significantly impact profitability. Leverage has a major negative impact on profitability, activity has a significant positive impact on profitability, and liquidity has a negative and significant negative impact on profitability.
Ncube and Chinjova, 2022	The effect of the COVID-19 Pandemic on working capital management of companies in the telecommunications sector in Zimbabwe	To explore the effect of the COVID-19 pandemic on the working capital of organizations in the telecommunication sector in Zimbabwe	Descriptive Statistics, Regression Analysis	The study found that a higher degree of implementation of HRM, finance, marketing, and operations management strategies had been made by firms. Certain methods were put in place as a result of the organizations' own necessity for existence, rather than necessarily being mandated by the government. The

				findings showed that while cash management and accounts payable were unaffected by Covid-19 working capital methods, inventory and accounts receivable were statistically significantly affected.
Habibniya et al. 2022	Impact of capital structure on profitability: Panel data evidence of the telecom industry in the United States	To investigate the impact of capital structure on the profitability of the telecom industry	Pooled Panel Regression analysis, Univariate analysis, correlation, descriptive statistics	The findings showed that ROA is significantly impacted by both the ratio of total equity to total assets and the ratio of total liabilities to total assets. Nevertheless, ROE is unaffected by the ratios of total liabilities to total assets and total equity to total assets.
Raval et al., 2021	A diagnostic study of the impact of working capital management on the profitability of Indian companies in the	To examine the performance of working capital management of telecommunication	Correlation, Descriptive Statistics, Regression Analysis	It is observed that the return on equity and the current ratio have a negative correlation, and that the current ratio has a moderate impact on profitability. The remaining factors, which include the ratio

	telecommunication sector			of debtors to creditors and inventories, are determined to have little bearing on the enterprise's profitability.
Hossain, 2020	The effect of working capital management on profitability: a study on manufacturing companies in Bangladesh	To analyze the impact of efficient working capital management on the profitability of the manufacturing firm	Ordinary Least Squares Regression	Based on the results, it was shown that there is a substantial negative link between ROA and CCC, ACP, and between ROE and CCC, APP. Reducing the average payment duration, average collection period, and cash conversion cycle might help manufacturing companies become more profitable. It also showed that ROA and ROE had a positive relationship with ICP.
Khan and Raj, 2020	Liquidity-profitability analysis and prediction of bankruptcy- a study of selected telecom companies	To analyze the financial health of the Indian telecom industry and predict the bankruptcy of selected companies	Altman Z-score	According to the study, the majority of telecom companies in the Indian telecom market perform poorly in terms of liquidity and profitability, placing them in the "Grey" zone of the Altman Z-

				score model, which is not good news for the sector. The Z-score for liquidity was significantly impacted, however the Z-score for profitability was not much impacted.
Khan et al., 2020	Impact of working capital management on firm's profitability (A case of the telecom sector in Pakistan)	To evaluate the effect of working capital management on the profitability of the telecom sector in Pakistan	Descriptive statistics, Correlation analysis, ANOVA, Regression Analysis	According to the regression model's results, the most important variables are the average receivable collection period (ACP), inventory conversion period (ICP), average payment period (APP), and cash conversion cycle (CCC). The current study's conclusion indicated that working capital management and the profitability of the company have a negative and significant link.
Khan et al., 2018	Panel data analysis of profitability determinants: evidence from	To study the financial health of companies belonging to the Indian	Descriptive Statistics, Pair-wise correlation analysis,	The study's conclusions show that while leverage has an inverse relationship with profitability, size

	Indian Telecom companies	telecom industry	Analysis of Multicollinearity, Panel regression analysis	and growth have a direct association. Z-score, NDTS, liquidity, and tangibleness all point to a negligible effect on profitability.
Monga and Khandelwal, 2018	Impact of capital structure on profitability with special reference to the telecom sector	To ascertain the impact of capital structure on a firm's profitability	Regression, Correlation Analysis	The analysis's findings indicate that, with the exception of the relationship between capital structure and gross profit ratio, there is a negative correlation between capital structure and profitability.
Purwoto and Estining Rahayu, 2018	Analysis of working capital management of industry practices in Indonesia	To reveal the in-depth description of working management among industries Indonesian public companies	Univariate analysis, comparative analysis, graphical analysis	According to this study, the majority of Indonesia's publicly traded corporations have positive working capital needs. Additionally, this study highlights the notable variations in working capital management metrics throughout numerous businesses. It is anticipated that the outcome will further the growth of Indonesian business

				management and literature. Key words: long-term viability, working capital management, efficiency.
Gautam Sharma and Kaur, 2016	Working capital management and its impact on profitability: a case study of Bharti Airtel Telecom Company	To examine the working capital performance of Bharti Airtel	Correlation analysis, Motaals test	The outcome showed that over the study period, there was a considerable improvement in liquidity performance as demonstrated by the Motaals test as well. The study reveals a noteworthy inverse correlation between liquidity and profitability, suggesting that Bharti Airtel has sustained a post-optimal level of liquidity, also known as excess liquidity, throughout the examined period.
Khan and Safiuddin, 2016	Liquidity and profitability performance analysis of selected telecom companies	To analyze the liquidity and profitability performance of selected Indian telecom companies	Descriptive statistics	In order to assess the performance and determine the financial health of the businesses functioning inside one of the most dynamic industries in

				the Indian economy, the study may employ ratios and indicators through an empirical technique.
Mahato and Jagannathan, 2016	Impact of working capital management on profitability: Indian telecom sector	To study the impact of working capital management on the profitability of telecom industry	Descriptive statistics, correlation analysis, Ordinary square least regression analysis	The findings indicated that while ROA has a positive association with APP, Debt ratio, and Firm size, it has a negative relationship with ICP, ACP, CCC, and Current ratio. One of India's main industries is the telecom sector.

2.3 Research Gap

Working capital management was the research title used for all of the aforementioned investigations. While some researchers have focused their research on a single organization, others have chosen to examine a variety of different companies. Some significant issues that could have an impact on the company's working capital activities are left out of the research mentioned above, including policies for working capital investment and financing, risk and return analysis, cost trade-offs, credit, cash, and inventory management, among other things.

In this research, an attempt has been made to analyze the efficiency and effectiveness of working capital management of Nepal Telecom and Nepal electricity authority. In this research secondary data for fiscal years 2013/2014 to 2022/2023 have been considered where as other pervious research is only up to last five fiscal year. In this research, it is tried to carry out the distinct from other previous research in terms of sample size, nature of sample, methodology & statistical tools used. Further, in the previous research, ratio analysis, standard deviation and correlation analysis have been used but in this research in addition to above statistical tools, regression analysis is also used as main model of study with the view to obtain the relevant & accurate result. So, it has been believed that the

research can be different than earlier one. Therefore, this research can be helpful for researchers, students and academicians. Almost all the ratios have been applied to cover the analytical part and fulfill the objective of this study. Therefore, this research can be helpful for researchers, students and academicians. In most of the studies, the variable selected for measuring profitability was ROA which is not the best measure of profitability, the best measure of profitability is ROE which is the main objective of any business, we consider both variables as an indicator of profitability.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology, which is the systematic gathering, recording, analysis, interpretation, and reporting of information regarding numerous facts of a phenomenon under investigation, is a methodical approach to solving a problem. Population and sample size, research design, research methodology, data sources and collecting strategy, data analysis and tools utilized, data analysis techniques, and research framework are all covered in this chapter.

3.1 Research design

Any examination should pick a satisfactory exploration configuration to accomplish its objective. Descriptive research design aims to accurately and systematically describe a population, situation, or phenomenon, often using surveys, observations, and case studies to collect data. It provides an in-depth understanding of what is happening but does not explain why it happens. Causal research design, on the other hand, seeks to determine cause-and-effect relationships by manipulating variables and controlling for external factors. It typically uses experiments and quasi-experiments to test hypotheses and establish causal links.

3.2 Population and Sample

According to the annual status review of public enterprises 2019 of the Ministry of Finance (www.mof.gov.np), Nepal has 39 public enterprises are currently operating. Among them, there are five enterprises in the category of the public utility sector. Nepal Doorsanchar Company Ltd. and Nepal Electricity Authority are the sample, and the population is represented by the public enterprises that are currently operating in Nepal. A representative sample of the entire population has been selected for the study. Random sampling was used to choose Nepal Doorsanchar Company Ltd. and Nepal Electricity Authority from the public utility sector category as a sample.

3.3 Nature and sources of data

The study is based on secondary data. The required data for analysis is directly collected from the balance sheet, and profit and loss accounts of Nepal Doorsanchar Company Ltd. and Nepal Electricity Authority from the annual report provided. The main sources of data

assessed under the study include sampled companies. The data covers a year starting from 2013/2014 to 2022/2023.

3.4 Data collection and processing procedures

Some secondary data, such as audited financial statements (the balance sheets and income statements) of Nepal Doorsanchar company and Nepal electricity authority for the ten-year period from the fiscal year 2013/2014 to 2022/2023, are collected for the study's convenience in order to meet the predetermined objective of the research. Next, in accordance with the study's requirements, all of the raw data—that is, information and concepts—are appropriately organized, synthesized, tabulated, processed, and presented in tabular form. The majority of the data has been combined into a single file, processed, and analyzed in accordance with the study's requirements. Following the data tabulation, the secondary data were provided for analysis purposes.

3.5 Data analysis tools and techniques

This study has employed a variety of statistical and financial methods to meet its goals. In this study, regression analysis, Karl Pearson's coefficient of correlation, and descriptive statistics are used as basic analytical statistical tools. The primary instrument for analyzing the study is the ratio analysis. They establish the financial statements' quantitative link between two variables. The SPSS 27.0 version software was used to analyze the data.

3.5.1 Financial analysis

In financial analysis, the ratio is used as an index of yardstick for evaluating the financial position and performance of the firm.

- **Average Payment Period (APP)**

The Average Payment Period (APP) is a financial metric used to assess how long a company takes to pay its suppliers. It's calculated by dividing the average accounts payable by the average daily credit purchases. A shorter APP indicates that a company is paying its bills more quickly, which can signal strong financial management and healthy supplier relationships. However, a longer APP may suggest liquidity issues or strained relationships with suppliers. Monitoring and managing the APP is crucial for maintaining financial health and vendor satisfaction within a business. The formula for average payment period can be presented below;

$$Average\ Payment\ Period\ (APP) = \frac{Account\ Payable}{Cost\ of\ Sales} * 365$$

- **Inventory Conversion Period (ICP)**

The inventory conversion period, also known as the inventory turnover period or inventory days, is a financial metric used to evaluate how efficiently a company manages its inventory. It measures the average number of days it takes for a company to sell its entire inventory and replace it with new inventory. A shorter inventory conversion period generally indicates that a company is efficiently managing its inventory. It suggests that the company is selling its products quickly and replenishing its inventory promptly, which can lead to lower storage costs, reduced risk of obsolescence, and improved cash flow. However, a longer inventory conversion period may indicate inefficiencies in inventory management, such as overstocking or slow-moving inventory.

The formula for the inventory conversion period can be presented below;

$$Inventory\ Conversion\ Period\ (ICP) = \frac{Inventory}{Cost\ of\ Sales} * 365$$

- **Average Collection Period (ACP)**

The average collection period, also known as the days sales outstanding (DSO), is a financial metric used to assess how efficiently a company collects its accounts receivable. It measures the average number of days it takes for a company to collect payments from its customers after a sale has been made. The average collection period provides insight into how quickly a company is able to convert its accounts receivable into cash. A shorter average collection period generally indicates that a company is efficient in collecting payments from its customers, which can lead to improved cash flow and liquidity. On the other hand, a longer average collection period may suggest inefficiencies in the company's credit and collection policies or potential issues with customer creditworthiness. Analyzing the average collection period over time and comparing it to industry benchmarks or historical data can help management assess the effectiveness of credit and collection processes. It can also identify areas for improvement, such as tightening credit policies, implementing more proactive collection strategies, or addressing issues with slow-paying customers. By managing the average collection period effectively, companies can optimize their cash flow and strengthen their financial position.

The formula for average collection period can be presented below;

$$Average\ Collection\ Period\ (ACP) = \frac{Account\ Receivable}{Net\ Sales} * 365$$

- **Cash Conversion Cycle (CCC)**

The cash conversion cycle (CCC) is a financial metric that measures the time it takes for a company to convert its investments in inventory and other resources into cash flows from sales. It assesses the efficiency of a company's cash management and working capital management. A shorter cash conversion cycle indicates that a company is able to generate cash more quickly from its operations, which is generally favorable as it allows the company to reinvest cash into the business or use it to pay down debts. Conversely, a longer cash conversion cycle may indicate inefficiencies in managing inventory, collecting receivables, or paying suppliers, which can tie up cash and negatively impact liquidity and profitability.

Analyzing the cash conversion cycle can help identify areas for improvement in working capital management and operational efficiency. By optimizing the cash conversion cycle, companies can enhance their cash flow, profitability, and overall financial health.

The formula for cash conversion cycle can be presented below;

$$Cash\ Conversion\ Cycle\ (CCC) = ACP + ICP - APP$$

Where,

ACP = Average Collection Period

ICP = Inventory Conversion Period

APP = Average Payment Period

- **Current Ratio (CR)**

The current ratio is a financial metric used to evaluate a company's short-term liquidity or its ability to meet its short-term obligations with its short-term assets. It's a measure of a company's ability to pay off its current liabilities (debts due within one year) using its current assets (assets expected to be converted into cash within one year). A current ratio greater than 1 indicates that a company has more current assets than current liabilities, suggesting that it should be able to meet its short-term obligations. Generally, a higher current ratio is considered favorable because it indicates a stronger liquidity position. It implies that the company has a cushion of assets that can be quickly converted into cash to cover its short-term debts. However, an excessively high current ratio may also indicate

that a company is not efficiently utilizing its current assets or may have too much cash tied up in non-productive assets. Conversely, a current ratio significantly lower than 1 may indicate liquidity issues and potential difficulties in meeting short-term obligations.

It's important to note that the ideal current ratio can vary by industry and depend on factors such as the company's business model, operating cycle, and risk tolerance. Therefore, when interpreting the current ratio, it's essential to consider it in the context of the company's specific circumstances and industry norms. Additionally, it's often useful to compare a company's current ratio over time and against its competitors to assess its liquidity position and financial health.

The formula for current ratio can be presented below;

$$Current\ Ratio\ (CR) = \frac{Current\ Assets}{Current\ Liabilities}$$

- **Debt Ratio (DR)**

The debt ratio, also known as the debt-to-assets ratio, is a financial metric used to measure the proportion of a company's assets financed by debt. It indicates the extent to which a company relies on debt to finance its operations and investments. The debt ratio provides insight into the financial leverage of a company, reflecting how much of its assets are funded by debt versus equity. A higher debt ratio indicates that a larger portion of the company's assets is financed by debt, which can increase financial risk due to higher interest payments and potential difficulties in meeting debt obligations, especially during economic downturns. Conversely, a lower debt ratio suggests a lower level of financial risk, as the company relies less on debt financing and may have more flexibility in managing its financial obligations.

However, the optimal debt ratio can vary depending on factors such as the industry, business model, and economic conditions. Some industries, such as utilities and real estate, typically have higher debt ratios due to the capital-intensive nature of their operations, while others, such as technology and healthcare, may have lower debt ratios. When analyzing the debt ratio, it's essential to consider it in conjunction with other financial metrics and factors such as the company's profitability, cash flow, and growth prospects. Additionally, comparing the debt ratio with industry averages and benchmarks can provide context for evaluating the company's leverage and financial risk relative to its peers.

The formula for debt ratio can be presented below;

$$Debt\ Ratio\ (DR) = \frac{Total\ Liabilities}{Total\ Assets}$$

- **Return on assets (ROA)**

Return on assets (ROA) is a financial metric that measures a company's profitability relative to its total assets. It indicates how efficiently a company is generating profits from its investments in assets. ROA measures the effectiveness of a company's management in utilizing its assets to generate profits. A higher ROA indicates that the company is more efficient in generating profits from its assets, while a lower ROA suggests less efficiency or potentially higher costs associated with asset utilization. It's important to interpret ROA in the context of the company's industry and business model, as different industries have varying levels of asset intensity and profitability expectations. For example, capital-intensive industries such as manufacturing or utilities may have lower ROA compared to service-oriented industries like software or consulting, which typically have higher ROA due to lower asset requirements.

ROA can also be used to compare a company's performance over time or against its competitors. A trend of increasing ROA may indicate improving efficiency and profitability, while a declining ROA may signal deteriorating performance or challenges in asset management. Overall, ROA provides valuable insights into a company's profitability and efficiency in utilizing its assets to generate returns for shareholders. However, it should be used in conjunction with other financial metrics and qualitative analysis to gain a comprehensive understanding of the company's financial health and performance.

The formula for return on assets can be presented below;

$$Return\ on\ Assets\ (ROA) = \frac{Net\ Income}{Total\ Assets}$$

- **Return on equity (ROE)**

Return on Equity (ROE) is a financial metric that measures a company's profitability relative to the shareholders' equity, reflecting how efficiently a company is generating profits from the shareholders' investment. ROE represents the return earned by shareholders on their investment in the company's equity. It's a crucial measure for investors as it indicates how effectively the company is utilizing shareholder funds to generate profits. A higher ROE typically indicates that the company is generating more profit with each dollar of shareholders' equity, which is generally viewed positively by investors. It suggests

efficient use of capital and strong profitability relative to the level of investment by shareholders. Conversely, a lower ROE may indicate less efficient use of shareholders' equity or lower profitability. This could be due to factors such as high debt levels, low profit margins, or inefficient asset utilization.

ROE can vary significantly between industries due to differences in business models, capital requirements, and risk profiles. Some industries, such as technology and healthcare, may have higher ROE due to their asset-light nature and high-profit margins, while others, such as utilities or manufacturing, may have lower ROE due to higher capital requirements and lower profit margins.

When interpreting ROE, it's essential to consider it alongside other financial metrics and factors such as industry benchmarks, historical trends, and the company's growth prospects. Additionally, investors should assess the quality and sustainability of earnings to ensure that high ROE is not solely driven by financial leverage or short-term factors. Overall, ROE provides valuable insights into a company's profitability and the efficiency of its use of shareholders' equity, making it a key metric for investors and analysts evaluating a company's financial performance.

The formula for return on equity can be presented below;

$$Return\ on\ Equity\ (ROE) = \frac{Net\ Income}{Common\ Equity}$$

3.5.2 Statistical analysis

Every variable—that is, the percentage, mean, median, standard deviation, maximum, and minimum results—has been meticulously documented to allow for a detailed review of their significance in light of the secondary data analysis. Statistical techniques are required in order to evaluate the relationship between two or more variables. In this investigation, the following statistical tools are used.

3.5.2.1 Arithmetic mean (Average)

The arithmetic mean, which uses one value to represent all of the data, is the most popular and often used way of computing central tendency. The arithmetic mean of values for a variable is defined as the ratio of the total values to the number of values. The calculation for it is as follows:

$$\overline{X} = \frac{\sum X}{n}$$

Where, $\sum X = X_1+X_2+X_3+\ldots\ldots\ldots..+X_n$=Sum of given set of observation

n = Number of items observed.

X= Variables

3.5.2.2 Standard deviation (S.D)

The standard deviation is the square root of the average of the square variances between the mean and the observation. The standard deviation makes it possible to locate the values of a frequency distribution with respect to the mean very precisely. This dispersion measure is the most popular and practical one, and it offers reliable, accurate, and stable data.

The formula of Standard Deviation is as follows:

$$SD\ (\sigma) = \sqrt{\frac{\sum \left(X - \overline{X}\right)^2}{N}}$$

3.5.2.3 Coefficient of variation (CV)

The standard deviation is a precise indicator of dispersion. The relative measure of dispersion based on the standard deviation is the co-efficient of standard deviation, which is the ratio of the standard deviation to the mean expressed in percentage terms. Since it is used to compare the variability of two series or sets of data with the same but different units, it is expressed in percentages and is unit-independent. Thus, it is possible to compare the variability of two distributions harshly using the coefficient of variance. Conversely, a higher CV is associated with decreased consistency, uniformity, etc.

$$CV = \frac{SD}{Mean} \times 100\,\%$$

3.5.2.4 Correlation coefficient (r)

The correlation coefficient shows how an independent and dependent variable relate to one another. It is a method for determining the relationship between these two variables. If two variables are so strongly correlated with each other that the change in the value of the independent variable also results in the change in the value of the dependent variable, then the two are said to have a correlation coefficient. Correlation analyses between a number of indicators, including return on assets, payable deferral ratio, payable turnover ratio of

Nepal Telecom, average collection period, inventory conversion period, and receivables turnover ratio, are carried out over the course of the study. To do the Pearson correlation analysis, data analysis and tabulation are performed using the SPSS version 27.0 database. Simple statistical tools like mean, standard deviation was analyzed.

Interpreting the correlation value, a positive link exists between the variables if the value of 'r' exceeds zero, while a negative association occurs when the value of 'r' is less than zero. Similarly, a connection is perfectly positive if the value of "r" is +1, and perfectly negative if it is -1. The relationship between the variables is zero if r = 0.

$$\text{Correlation of coefficient, r} = \frac{n.\sum XY - \left(\sum X\right).\left(\sum Y\right)}{\sqrt{n.\sum X^2 - \left(\sum X\right)^2}.\sqrt{n.\sum Y^2 - \left(\sum Y\right)^2}}$$

Where,

n Number of pairs of observation.

X= Variable

Y = Variable

r = correlation of coefficient

3.5.2.5 Multiple regression analysis

Multiple regression analysis is a logical step up from basic linear regression analysis. Instead of using just one independent variable, two or more are used to estimate the unknown values of a dependent variable. However, the fundamental notion of the analysis remains unchanged. Based on the known values of two or more independent variables, the statistical method known as multiple regression is used to estimate (or forecast) the most likely value of the dependent variable.

The following multiple regression equation is analyzed.

Multiple Regression Model

$$ROA = \propto + X_1\beta_1 + X_2\beta_2 + \cdots + X_6\beta_6 + ei$$

$$ROE = \propto + X_1\beta_1 + X_2\beta_2 + \cdots + X_6\beta_6 + ei$$

Where, ROA, ROE = Dependent variable

X_1, X_2……X_6 = Independent variables

α = Constant

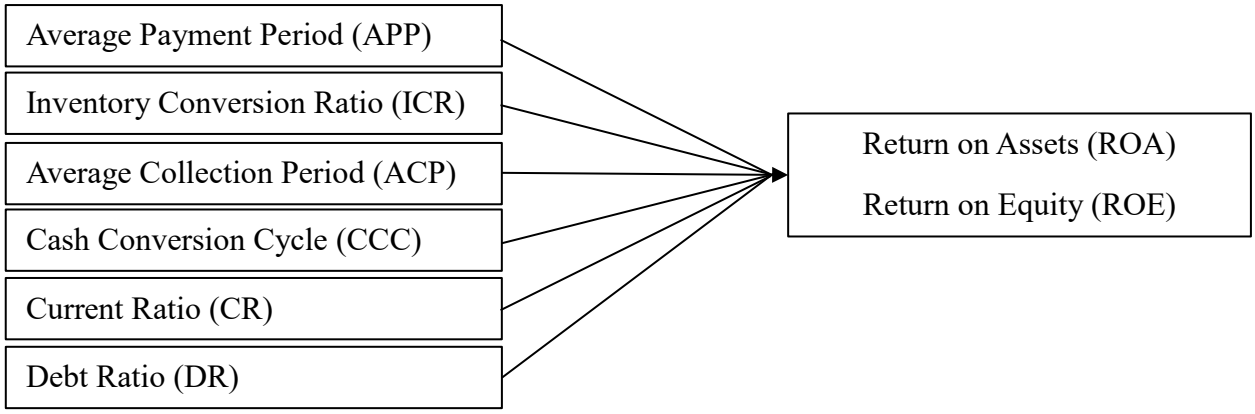
βi = Beta Coefficient of the slope of the regression model and

ei = Error term

3.6 Research framework and definition of variables

Working capital management is the proper handling of a company's current assets and current liabilities. This includes all decisions and activities that affect how much current assets to have on hand, how best to use them, and which financing options to pursue while keeping liquidity. Effective day-to-day management of the organization is essential. As a result, working and total current assets are equivalent. It is also referred to as "circulating capital" because it is constantly in circulation while businesses are operating. Using all current assets and current liabilities as effectively and efficiently as possible to lower total expenses is the general definition of working capital management. The study developed a conceptual framework to show how the independent and dependent variables are related. The elements of working capital are the independent variables. These consist of the cash conversion cycle, average collection period, inventory conversion ratio, average payment period, current ratio, and debt ratio. The profitability of the company, as measured by return on equity and return on assets, is the dependent variable.

Figure 1 independent variables and dependent variables



(Sources: Khan et al., 2020; Mahato and Jagannathan, 2016)

Average payment period: The Average Payment Period (APP) evaluates how long a company takes to settle its supplier invoices. A shorter APP suggests efficient financial management and positive supplier relations, while a longer one may indicate liquidity challenges or strained supplier relationships. Monitoring and managing the APP are vital for sustaining financial health and vendor satisfaction in a business.

Inventory conversion ratio: The inventory conversion period, or inventory turnover period, measures how quickly a company sells and replenishes its inventory. A shorter period suggests efficient inventory management, leading to lower costs, reduced obsolescence risk, and improved cash flow. Conversely, a longer period may indicate inventory management inefficiencies like overstocking or slow-moving inventory.

Average collection period: The average collection period, or days sales outstanding (DSO), gauges how promptly a company collects payments from customers after sales. A shorter period suggests efficient collections, enhancing cash flow and liquidity. Conversely, a longer collection period may indicate issues with credit policies or customer creditworthiness, affecting cash flow negatively.

Cash conversion cycle: The cash conversion cycle (CCC) measures how quickly a company can turn its investments in inventory and resources into cash from sales. A shorter CCC is preferred as it reflects efficient cash management, enabling quicker reinvestment or debt repayment. Conversely, a longer CCC suggests inefficiencies in inventory management, receivables collection, or supplier payments, potentially impacting liquidity and profitability negatively.

Current ratio: The current ratio assesses a company's ability to cover short-term obligations with short-term assets. A ratio over 1 suggests the company can meet these obligations, with higher ratios indicating stronger liquidity. However, excessively high ratios might indicate inefficient asset usage. Conversely, ratios significantly below 1 may signal liquidity problems and challenges in fulfilling short-term debts.

Debt Ratio: The debt ratio, or debt-to-assets ratio, measures the portion of a company's assets financed by debt. It reveals the reliance of a company on debt for its operations and investments. A higher debt ratio indicates more assets are funded by debt, potentially increasing financial risk due to higher interest payments and challenges in meeting debt obligations, especially in economic downturns. Conversely, a lower debt ratio signals lower financial risk, as the company depends less on debt financing and may have greater flexibility in managing financial obligations.

Return on assets: Return on Assets (ROA) is a financial measure that evaluates how effectively a company generates profits from its total assets. It signifies the efficiency of asset utilization in profit generation. A higher ROA indicates better profitability from assets, while a lower ROA suggests less efficiency or potentially higher costs in asset management.

It's crucial to consider industry norms and business models when interpreting ROA, as different industries have varying asset requirements and profitability expectations. For instance, industries like manufacturing or utilities, which are capital-intensive, may have lower ROA compared to service-oriented sectors like software or consulting, which typically have higher ROA due to lower asset demands.

Return on equity: Return on Equity (ROE) is a financial ratio that gauges a company's ability to generate profits from its shareholders' equity. It measures the efficiency of a company in using investment funds to generate earnings growth. A high ROE is usually seen as a positive sign, indicating effective capital usage and strong profitability. On the other hand, a low ROE might suggest inefficiencies in using shareholders' equity, potentially due to high debt, low-profit margins, or poor asset management. This metric is important for investors as it helps assess the profitability and efficiency of a company in using their investments.

CHAPTER IV

RESULT AND DISCUSSION

4.1 Result

This chapter includes the analysis of collected data and their presentation. In this chapter, an effort has been made to analyze the working capital management of Nepal Dooorsanchar Company Ltd. And Nepal Electricity Authority With the help of different tools and the literature review of the previous chapter, most collected data are secondary. It is easy to make simple and understandable with the help of table results.

4.1.1 Descriptive Statistics

The study includes characteristics like minimum, maximum, mean, and standard deviation in its descriptive statistics analysis and presentation for the electrical authority and telecom industry sample. The lowest value among the observations is shown by the minimum value. In addition, the highest value among the observations offers a higher degree of significance. The arithmetic average of the variables is indicated by the mean value. In the meantime, the dataset's diversity or dispersion for each variable is shown by the standard deviation. A smaller standard deviation means that the data points are closer to the mean, whereas a bigger value means that the distribution is more widely dispersed. The provided table outlines the profitability indicators like return on assets and return on equity, and demonstrates the interplay between independent variables such as average payment period, inventory conversion period, average receivable period, cash conversion cycle, current ratio and debt ratio and corresponding dependent variables.

The following table shows the descriptive statistics;

Table 2

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average Payment Period (APP)	20	11.7488	609.1723	257.6172	245.4640
Inventory Conversion Period (ICP)	20	2.6148	101.6942	34.5289	31.9222
Average Collection Period (ACP)	20	22.4437	234.7875	97.7087	76.4801
Cash Conversion Cycle (CCC)	20	0.6966	423.0619	129.2371	171.2160
Current Ratio (CR)	20	0.5474	4.3481	2.0601	1.3078
Debt Ratio (DR)	20	0.2443	0.8766	0.5182	0.2195
Return on Assets (ROA)	20	-0.0422	0.1326	0.0459	0.0555
Return on Equity (ROE)	20	-0.3418	0.1797	0.0422	0.1441
Valid N (listwise)	20				

(Sources: output from SPSS 27.0 analysis)

Table 2, provides the descriptive analysis. The minimum value of the average payment period is 11.7488, indicating the minimum value of the average payment period among the observations. The maximum value of the average payment period is 609.1723, which shows the highest value among the observations. The mean value of the average payment period is 257.6172, which indicates the average value of the observations. The standard deviation of the average payment period is 245.4640, a larger value of standard deviation indicates a broader distribution over a wider range. The minimum value of the inventory conversion period is 2.6148, indicating the minimum value of the inventory conversion period among the observations. The maximum value of the inventory conversion period is 101.6942, which shows the highest value among the observations. The mean value of the inventory conversion period is 34.5289, which indicates the average value of the observations. The standard deviation of the inventory conversion period is 31.9222, a larger value of standard deviation indicates a broader distribution over a wider range.

The minimum value of the average collection period is 22.4437, indicating the minimum value of the average collection period among the observations. The maximum value of the average collection period is 234.7875, which shows the highest value among the observations. The mean value of the average collection period is 97.7087, which indicates

the average value of the observations. The standard deviation of the average collection period is 76.4801, a larger value of standard deviation indicates a broader distribution over a wider range. The minimum value of the cash conversion cycle is 0.6966, indicating the minimum value of the cash conversion cycle among the observations. The maximum value of the cash conversion cycle is 423.619, which shows the highest value among the observations. The mean value of the cash conversion cycle is 129.2371, which indicates the average value of the observations. The standard deviation of the cash conversion cycle is 171.2160, a larger value of standard deviation indicates a broader distribution over a wider range.

The minimum value of the current ratio is 0.5474, indicating the minimum value of the current ratio among the observations. The maximum value of the current ratio is 4.3481, which shows the highest value among the observations. The mean value of the current ratio is 2.0601, which indicates the average value of the observations. The standard deviation of the current ratio is 1.3078, a larger value of standard deviation indicates a broader distribution over a wider range. The minimum value of the debt ratio is 0.2443, indicating the minimum value of the debt ratio among the observations. The maximum value of the debt ratio is 0.8766, which shows the highest value among the observations. The mean value of the debt ratio is 0.5182, which indicates the average value of the observations. The standard deviation of the debt ratio is 0.2195, a larger value of standard deviation indicates a broader distribution over a wider range. The minimum value of the return on assets is -0.0422, indicating the minimum value of the return on assets among the observations. The maximum value of the return on assets is 0.1326, which shows the highest value among the observations. The mean value of the return on assets is 0.0459, which indicates the average value of the observations. The standard deviation of the return on assets is 0.0555, a larger value of standard deviation indicates a broader distribution over a wider range.

The minimum value of the return on equity is -0.3418, indicating the minimum value of the return on equity among the observations. The maximum value of the return on equity is 0.1797, which shows the highest value among the observations. The mean value of the return on equity is 0.0422, which indicates the average value of the observations. The standard deviation of the return on equity is 0.1441, a larger value of standard deviation indicates a broader distribution over a wider range.

4.1.2 Correlation Analysis

The degree and direction of the association between dependent and independent variables are assessed using correlation analysis. Researchers can ascertain whether an increase in one variable is connected to a reduction in another one by computing a correlation coefficient, such as Pearson's r. A positive correlation means that when one variable rises, the other rises as well; conversely, a negative correlation means that when one rises, the other falls. It is important to remember that a strong correlation does not prove that changes in one variable cause changes in another. Correlation does not imply causation.

The following table shows the correlation analysis;

Table 3

Correlation analysis

		APP	ICP	ACP	CCC	CR	DR	ROA	ROE
APP	Pearson Correlation	1							
ICP	Pearson Correlation	.693**	1						
ACP	Pearson Correlation	.811**	.928**	1					
CCC	Pearson Correlation	.919**	0.372	.521*	1				
CR	Pearson Correlation	-.774**	-.547*	-.649**	-.712**	1			
DR	Pearson Correlation	.959**	.653**	.808**	.875**	-.893**	1		
ROA	Pearson Correlation	-.843**	-.605**	-.760**	-.745**	.952**	-.955**	1	
ROE	Pearson Correlation	-.740**	-0.318	-.561*	-.740**	.726**	-.852**	.860**	1
	N	20	20	20	20	20	20	20	20

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

*. Correlation is significant at the 0.05 level (2-tailed).

(Sources: output from SPSS 27.0 analysis)

Table 3, displays the correlation analysis. The Pearson correlation coefficient of the average payment period is -0.843, which indicates that the relationship between the average payment period and the return on assets is negative and significant at the level of 0.01. The Pearson correlation coefficient of the average payment period is -0.740, which indicates a negative and significant relationship between the average payment period and return on equity.

The Pearson correlation coefficient of the inventory conversion period is -0.605, which indicates that the relationship between the inventor conversion period and the return on assets is negative and significant at the level of 0.01. The Pearson correlation coefficient of the inventory conversion period is -0.318, which indicates a negative and insignificant relationship between the inventory conversion period and return on equity.

The Pearson correlation coefficient of the average collection period is -0.760, which indicates that the relationship between the average collection period and the return on assets is negative and significant at the level of 0.01. The Pearson correlation coefficient of the average collection period is -0.561, which indicates a negative and significant relationship between the average collection period and return on equity.

The Pearson correlation coefficient of the cash conversion cycle is -0.745, which indicates that the relationship between the cash conversion cycle and the return on assets is negative and significant at the level of 0.01. The Pearson correlation coefficient of the cash conversion cycle is -0.740, which indicates a negative and significant relationship between the cash conversion cycle and return on equity.

The Pearson correlation coefficient of the current ratio is 0.952, which indicates that the relationship between the current ratio and the return on assets is positive and significant at the level of 0.01. The Pearson correlation coefficient of the current ratio is 0.726, which indicates a positive and significant relationship between the current ratio and return on equity.

The Pearson correlation coefficient of the debt ratio is -0.955, which indicates that the relationship between the debt ratio and the return on assets is negative and significant at the level of 0.01. The Pearson correlation coefficient of the debt ratio is -0.852, which indicates a negative and significant relationship between the debt ratio and return on equity.

4.1.3 Regression Analysis

Regression analysis is used to model and analyze the relationship between a dependent variable and one or more independent variables. By fitting a regression line or curve to the data, the method quantifies how changes in the independent variables are associated with changes in the dependent variable. The most common type, linear regression, assumes a linear relationship and estimates coefficients that represent the magnitude and direction of the relationship between each independent variable and the dependent variable. Regression analysis can be used for prediction, determining the strength of predictors, and understanding the relationships between variables. Importantly, while regression can suggest associations and predict outcomes, it does not inherently establish causation without further experimental or longitudinal evidence.

A. Regression analysis of return on assets (ROA)

1. Model Summary

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.994[a]	0.987	0.982	0.0075

a. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

(Sources: output from SPSS 27.0 analysis)

Table 4, displays the model summary of regression analysis of return on assets. Multiple R is the correlation coefficient which shows how strong the linear relationship is between the dependent and independent variables. In the above calculation, there is a 0.994 multiple R-value. The R square, a coefficient to determination, stood at 0.987, which reflects that about 98.7 % of the systematic variation in return on asset (ROA) can explained by the average payment period, inventory conversion period, cash conversion cycle, current ratio and debt ratio and the remaining 0.013 or 1.3 % is due to the effect of the other factors. The adjusted R square is adjusted for the number of terms in a model. A higher adjustment indicates that the additional input variables are adding value to this model. By using the regression model, we can estimate the value of a dependent variable with the given value of independent variables and the estimation will never be the same as it will in actual. The standard error

is 0.0075, which refers to the deviation between the actual value and the estimated value of a dependent variable (ROA).

2. ANOVA analysis

Table 5

ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.058	6	0.010	169.407	.000[b]
	Residual	0.001	13	0.000		
	Total	0.059	19			

a. Dependent Variable: Return on Assets (ROA)

b. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

(Sources: output from SPSS 27.0 analysis)

Table 5, represents the ANOVA analysis which shows the regression and residual value of the return on assets. There is a significant relationship between return on assets and independent variables such as average payment period, inventory conversion period, cash conversion cycle, current ratio and debt ratio as indicated by the significance value of return on assets which is 0.000. The value F of return on assets is 169.407, which evaluates the significance of the overall regression model.

3. Regression analysis coefficient of ROA

The regression of the impact of working capital management on the performance of Nepal Doorsanchar and Nepal Electricity Authority in Nepal includes the average payment period, inventory conversion period, average collection period, cash conversion cycle, current ratio and debt ratio as independent variables. This regression module's equation is provided below;

$Y(ROA) = \propto + \beta_1 APP + \beta_2 ICP + \beta_3 ACP + \beta_4 CCC + \beta_5 CR + \beta_6$DR …… (i)

$ROA = 0.177 + 0.000APP + 0.000ICP + 0.000ACP + 0.000CCC + 0.009CR - 0.368DR$…… (i)

Where,

ROA = Return on assets as a dependent variable

$\propto$ = intercept (constant)

APP = Average payment period

ICP = Inventory conversion period

ACP = Average collection period

CCC = Cash conversion cycle

CR = Current ratio

DR = Debt ratio

$\beta_1, \beta_2, \beta_3$…… …… β_6 = coefficient of each independent variables

Table 6

Regression coefficient table of ROA

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.177	0.038		4.630	0.000
	APP	0.000	0.000	0.190	0.218	0.831
	ICP	0.000	0.000	0.028	0.161	0.875
	ACP	0.000	0.000	0.160	0.489	0.633
	CCC	0.000	0.000	0.411	0.663	0.519
	CR	0.009	0.005	0.210	1.693	0.114
	DR	-0.368	0.079	-1.456	-4.644	0.000

a. Dependent Variable: Return on Assets (ROA)

(Sources: output from SPSS 27.0 analysis)

Table 6, indicates the regression coefficient of working capital management. The constant value is 0.177. The regression coefficient of the average payment period is 0.000 and the significance value is 0.831, which indicates a positive but not statistically significant impact on the return on assets, this means that if the value of the average payment period increases the value of return on assets also increases. The regression coefficient of the inventory conversion period is 0.000 and the significance value is 0.875, which is higher than the level of significance i.e. 0.05. This shows that the inventory conversion period has a positive and insignificant impact on the performance.

The regression coefficient of the average collection period is 0.000 and the significance value of the average collection period is 0.633. this means that the return on assets is positively and insignificantly influenced by the average collection period. The regression coefficient of the cash conversion period is 0.000 and the significance value is 0.519, which indicates the cash conversion cycle positively and statistically insignificant effect on the return on assets. The regression coefficient of the current ratio is 0.009, which is positive and the significance value is 0.114 which is more than the level of significance. This means that the current ratio has a positive and insignificant impact on the return on assets. The positive relationship between the current ratio and ROA is not statistically significant. This means that the observed effect might be due to random variation rather than a true underlying relationship. The p-value associated with this impact is above the common threshold (e.g., 0.05). The debt ratio has a negative regression coefficient i.e. -0.368 and the significance value is 0.000 which is lower than the level of significance. This means that the debt ratio has a negative and statistically significant impact on the return on assets. The negative impact is statistically significant, meaning the relationship is strong enough to be unlikely due to random chance, with p-values below the common threshold (e.g., 0.05). This indicates a reliable and consistent trend across the data.

B. Regression analysis of return on equity (ROE)

4. Model Summary

Table 7

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.983[a]	0.966	0.950	0.0323

a. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

(Sources: output from SPSS 27.0 analysis)

Table 7, displays the model summary of regression analysis of return on equity. Multiple R is the correlation coefficient which shows how strong the linear relationship is between the dependent and independent variables. In the above calculation, there is a 0.983 multiple R-value. The R square, a coefficient to determination, stood at 0.966, which reflects that about 96.6 % of the systematic variation in return on equity (ROE) can explained by the average

payment period, inventory conversion period, cash conversion cycle, current ratio and debt ratio and the remaining is due to the effect of the other factors. The adjusted R square is adjusted for the number of terms in a model. A higher adjustment indicates that the additional input variables are adding value to this model. By using the regression model, we can estimate the value of a dependent variable with the given value of independent variables and the estimation will never be the same as it will in actual. The standard error is 0.0075, which refers to the deviation between the actual value and the estimated value of a dependent variable (ROE).

5. ANOVA analysis

Table 8

ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.381	6	0.064	60.776	.000[b]
	Residual	0.014	13	0.001		
	Total	0.395	19			

a. Dependent Variable: Return on Equity (ROE)

b. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

(Sources: output from SPSS 27.0 analysis)

Table 8, represents the ANOVA analysis which shows the regression and residual value of the return on equity. There is a significant relationship between return on equity and independent variables such as average payment period, inventory conversion period, cash conversion cycle, current ratio and debt ratio as indicated by the significance value of return on equity which is 0.000. The value F of return on equity is 60.776, which evaluates the significance of the overall regression model.

6. Regression analysis coefficient of ROA

The regression of the impact of working capital management on the performance of Nepal Doorsanchar and Nepal Electricity Authority in Nepal includes the average payment period, inventory conversion period, average collection period, cash conversion cycle,

current ratio and debt ratio as independent variables. This regression module's equation is provided below;

$Y(ROE) = \propto + \beta_1 APP + \beta_2 ICP + \beta_3 ACP + \beta_4 CCC + \beta_5 CR + \beta_6$DR ……. (i)

$ROE = 1.351 + 0.000APP + 0.000ICP + 0.002ACP + 0.001CCC - 0.128CR - 2.802DR$……. (i)

Where,

ROE = Return on equity as a dependent variable

$\propto$ = intercept (constant)

APP = Average payment period

ICP = Inventory conversion period

ACP = Average collection period

CCC = Cash conversion cycle

CR = Current ratio

DR = Debt ratio

$\beta_1, \beta_2, \beta_3$…… …… β_6 = coefficient of each independent variables

Table 9

Regression coefficient table of ROE

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.351	0.164		8.241	0.000
	APP	0.000	0.001	0.541	0.376	0.713
	ICP	0.000	0.001	0.033	0.112	0.912
	ACP	0.002	0.001	1.101	2.045	0.062
	CCC	0.001	0.001	1.084	1.060	0.308
	CR	-0.128	0.023	-1.163	-5.666	0.000
	DR	-2.802	0.340	-4.269	-8.246	0.000

a. Dependent Variable: Return on Equity (ROE)

(Sources: output from SPSS 27.0 analysis)

Table 9, indicates the regression coefficient of working capital management. The constant value is 1.351. The regression coefficient of the average payment period is 0.000 and the significance value is 0.713, which indicates a positive but not statistically significant impact on the return on equity, this means that if the value of the average payment period increases the value of return on equity also increases. The regression coefficient of the inventory conversion period is 0.000 and the significance value is 0.912, which is higher than the level of significance i.e. 0.05. This shows that the inventory conversion period has a positive and insignificant impact on the performance.

The regression coefficient of the average collection period is 0.002 and the significance value of the average collection period is 0.062. This means that the return on equity is positively and insignificantly influenced by the average collection period. The regression coefficient of the cash conversion period is 0.001 and the significance value is 0.308, which indicates the cash conversion cycle positively and statistically insignificant effect on the return on equity.

The regression coefficient of the current ratio is -0.128, which is negative and the significance value is 0.000 which is less than the level of significance. This means that the current ratio has a negative and significant impact on the return on equity. The negative relationship between the current ratio and ROE is statistically significant. This means that the observed effect is strong enough to be considered unlikely due to random chance, with a p-value below the common threshold (e.g., 0.05). The debt ratio has a negative regression coefficient i.e. -2.802 and the significance value is 0.000 which is lower than the level of significance. This means that the debt ratio has a negative and statistically significant impact on the return on equity. The negative impact is statistically significant, meaning the relationship is strong enough to be unlikely due to random chance, with p-values below the common threshold (e.g., 0.05). This indicates a reliable and consistent trend across the data.

4.2 Discussion

The findings of the study are discussed below.

The average payment period has a positive but not statistically significant impact on the return on assets and return on equity. This result is not consistent with the findings of Khan et al. (2020) that the average payment period had a negative and significant impact on the return on assets and return on equity. This result is consistent with the findings of Mahato and Jagannathan (2016) that the average payment period had a positive and statistically

significant impact on profitability. This result is not similar to the findings of Urachmansyah et al. (2023), S Laureano et al. (2013) and Bashir and Regupathi (2021) that the average payment period had a negative and significant impact on profitability. The result of Bansal and Drishti (2022) found inconsistent with this result that the average payment period had a significant impact on the performance of the firms.

The inventory conversion period has a positive and insignificant impact on the return on assets and return on equity. This result is not consistent with the findings of Khan et al. (2020) that the inventory conversion period had a negative and statistically significant impact on profitability. This result is not consistent with the findings of Mahato and Jagannathan (2016) that the inventory conversion ratio had a negative and statistically significant impact on profitability. The result of Bansal and Drishti (2022) found inconsistent with this result that the inventory conversion period had a significant impact on the return on assets.

The return on assets and return on equity are positively and insignificantly influenced by the average collection period. This result is not consistent with the findings of Khan et al. (2020) that the average collection period had a negative and significant impact on profitability. This result is not consistent with the findings of Mahato and Jagannathan (2016) that the average collection period had a positive and significant effect on the performance of the telecom sector. This result is not similar to the findings of Urachmansyah et al. (2023) that the average receivable period had a negative but not statistically significant impact on profitability. The result of Bansal and Drishti (2022) found inconsistent with this result that the average collection period had a significant impact on the return on assets.

The cash conversion cycle has a positive and statistically insignificant effect on the return on assets and return on equity. This result is not consistent with the findings of Khan et al. (2020) that the cash conversion cycle had a negative and significant impact on the return on assets and return on equity. When it comes to current asset management, the cash conversion cycle is essential. Therefore, it is advised that businesses have a shorter cash conversion cycle in order to generate cash quickly and maintain a profitable operation. To increase company liquidity and profitability, receivables and payables are managed as efficiently as possible. This result is not consistent with the findings of Mahato and Jagannathan (2016) that the cash conversion cycle had a positive and statistically significant impact on return on assets. The result of Bansal and Drishti (2022) found

inconsistent with this result that the cash conversion cycle had a significant impact on the return on assets.

The current ratio has a positive and insignificant impact on the return on assets. However, the current ratio has a negative and significant impact on the return on equity. This result is similar to the findings of Khan et al. (2018) that the liquidity indicated by the current ratio has an insignificant impact on profitability. This result is similar to the findings of Khan and Raj (2020) that liquidity had a significant impact on profitability. This result is similar to Njoroge (2017), Waleed (2016) and Krishnamoorthi (2016) that there is a positive relationship between liquidity and profitability. Ibrahim (2017) found that an increase in liquidity leads to an increase in return on assets so the company should try to maintain a balance between liquidity and profitability. This result is not consistent with the findings of Mahato and Jagannathan (2016) that the current ratio had a negative and significant impact on profitability.

The current ratio has a positive and insignificant impact on the return on assets. However, the current ratio has a negative and significant impact on the return on equity. This result is not similar to the findings of Raval et al. (2021) that the return on equity was negatively and significantly influenced by the current ratio, the level of significance appears to be moderate. This indicates that businesses place a modest amount of weight on this element in light of how it affects return on equity. The result of Hasbiah (2021) is not similar to the findings of this study in that Companies could raise their profitability by limiting liquidity, which can lower corporate profits and draw in investors while also improving their financial performance. Liquidity, as measured by the current ratio, has a negative and significant impact on profitability.

The debt ratio has a negative and statistically significant impact on the return on assets and return on equity. This result is similar to the findings of Khan et al. (2018) that the leverage indicated by the debt ratio has an inverse relationship with the profitability. Thus, it can be concluded that Nepalese enterprises are adhering to the pecking order theory since high debt levels are associated with lower profitability. Profitable businesses should attempt to collect enough internal money to cover their demands and borrow less, whereas companies that are expanding should use more of their own funds. Additionally, the study suggests that growth is a necessary component of profitability.

The debt ratio has a negative and statistically significant impact on the return on assets and return on equity. This result is consistent with the findings of Habibniya et al. (2022) that the debt ratio has a significant impact on the return on assets but no impact on the return on equity. Similar results are reported by Vătavu (2015) and Azhagaiah and Gavoury (2011). Given that the bulk of the telecom companies in the sample had negative EBITs and a negative mean ROA, the sample comprises financially distressed loss-making companies. The debt ratio is found to have a considerable and negative impact on ROA, which is not surprising given the dismal performance of the firms. Owing to substantial liability commitments, companies are unable to contribute enough capital to improve operating performance. This result is not consistent with the findings of Mahato and Jagannathan (2016) that the debt ratio had a positive and significant impact on return on assets. The result of Bansal and Drishti (2022) found inconsistent with this result that the inventory conversion period had an insignificant impact on the return on assets.

CHAPTER V

SUMMARY AND CONCLUSION

This chapter is divided into these sections, the first is to provide all the information about the study in brief. The second section is about the conclusion of the study and the last section is about the implication.

5.1 Summary

The main motive of the study is to investigate the impact of working capital management on the profitability of Nepal Telecom and Nepal Electricity Authority. The objectives of the study are to analyse the existing position of working capital and the profitability of public enterprises and to examine the relationship between working capital and the profitability of Nepalese public enterprises. Finally, the last objective is to investigate the impact of working capital management on the profitability of public enterprises. The literature reviews were carried out from different journals, articles, and reports to analyse the telecom and electricity industry's working capital management and performance. In this study, descriptive research design and causal research design were adopted. The researcher took two public enterprises among the top five enterprises out of forty-four public enterprises among them twenty-five are making a profit and others are at a loss. This study covers only ten years of data from 2013/2014 to 2022/2023. All necessary data were collected from public enterprises such as Nepal Doorsanchar Company Limited and Nepal Electricity Authority's annual reports collected from their websites. The collected data and the information through the different sources have been analyzed by using descriptive statistics, Pearson's correlation analysis, ANOVA and multiple linear regression analysis by using SPSS 27.0 version software. The independent variables of this study are the average payment period, inventory conversion period, average collection period, cash conversion cycle, current ratio and debt ratio, and the profitability of sampled enterprises is measured by the return on assets and return on equity.

In the regression analysis, The R square, or the coefficient of determination, was 0.987, meaning that the average payment period, inventory conversion period, cash conversion cycle, current ratio, and debt ratio can account for approximately 98.7% of the systematic variation in return on asset (ROA), with the remaining 0.013, or 1.3 percent, coming from the influence of the other factors. The coefficient of determination, or R square, was found to be 0.966. This indicates that the average payment period, inventory conversion period,

cash conversion cycle, current ratio, and debt ratio account for approximately 96.6 percent of the systematic variation in return on equity (ROE), with the remaining portion being explained by the influence of other factors.

The significance value of return on assets, which is 0.000, indicates that there is a significant relationship between return on equity and return on assets as well as independent variables like average payment period, inventory conversion period, cash conversion cycle, current ratio, and debt ratio. The overall significance of the regression model is assessed by the return on assets (F) value, which is at 169.407 in this case. The return on equity (F) value of 60.776 assesses the overall regression model's relevance.

The return on equity and return on assets are positively impacted by the average payment time, albeit this effect is not statistically significant. The return on equity and return on assets are positively and negligibly impacted by the inventory conversion phase. The average collecting duration has a favorable but negligible impact on the return on equity and return on assets. The return on equity and return on assets are positively impacted by the cash conversion cycle, although this effect is statistically negligible. The return on assets is positively and marginally impacted by the current ratio. On the other hand, the return on equity is significantly impacted negatively by the current ratio. The return on assets and return on equity are negatively and statistically significantly impacted by the debt ratio.

5.2 Conclusion

The relationship between financial performance metrics like Return on Assets (ROA) and Return on Equity (ROE) and various financial management practices shows trends but often lacks statistical significance. For instance, an extended average payment period tends to slightly increase both ROA and ROE, possibly because firms can utilize their cash longer before paying suppliers. However, the p-values indicate this observed effect could be due to chance, advising caution in drawing definitive conclusions or changing policies based on these findings.

Similarly, a longer inventory conversion period appears to have a positive yet statistically insignificant impact on ROA and ROE. This suggests that taking more time to convert inventory into sales might marginally enhance returns, potentially due to better inventory management or optimized stock levels. However, the relationship is not strong enough to

be deemed significant, implying that financial performance must be evaluated within a broader context, including other operational and market factors.

The average collection period and cash conversion cycle (CCC) also show a positive but statistically insignificant impact on ROA and ROE. Firms that take longer to collect receivables might see slight improvements in returns, possibly due to more credit extended to customers, leading to higher sales. However, the lack of statistical significance means this trend could be coincidental, and further analysis with more robust data is needed to determine the true impact of these periods on financial performance.

Conversely, the current ratio's effect on financial performance varies. It positively but insignificantly affects ROA, suggesting better liquidity management might enhance asset utilization. However, it has a significant negative impact on ROE, indicating that higher liquidity could lead to lower shareholder returns due to over-conservative financial management. Additionally, a high debt ratio negatively and significantly impacts both ROA and ROE, highlighting the risks associated with excessive debt. Firms must balance their capital structure to minimize financial risks while optimizing returns.

5.3 Implications

Based on the preceding assessment of working capital management among the chosen public enterprises in Nepal, the subsequent recommendations are formulated for these enterprises concerning various aspects of working capital management.

a. Since the impact on profitability is not statistically significant, caution should be exercised when interpreting this relationship. It might not reliably indicate a true effect. Further research with larger sample sizes or different analytical methods might be necessary to detect any true effects.
b. The significant negative impact suggests that higher liquidity (as indicated by a higher current ratio) might be detrimental to shareholder returns. This could be due to over-conservative financial management, leading to lower profitability and less efficient use of equity. Companies should balance liquidity and efficiency to avoid holding excessive current assets that do not contribute to profitability.
c. Investors, managers, and other stakeholders should consider the negative effects of high debt ratios on both ROA and ROE when making financial and investment decisions.

d. This study was conducted in only 2 public enterprises listed in NEPSE. now further researchers can conduct on the same topic by adding more or another sample size.
e. Ten years of data is used in this research; further researchers can go for more periods of data.
f. This study used the average payment period, inventory conversion period, average collection period, cash conversion cycle, current ratio and debt ratio to find out the impact on return on assets and return on equity of selected companies. Further researchers can use these variables as a reference for the studies.

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APPENDICES

Appendix I

Raw Data

Year	Particular	APP	ICP	ACP	CCC	CR	DR	ROA	ROE
2013/2014	NDCL	41.409	7.738	26.895	6.776	3.545	0.291	0.110	0.155
2014/2015	NDCL	37.166	11.639	22.444	3.084	3.939	0.272	0.131	0.180
2015/2016	NDCL	34.441	6.913	35.310	7.782	4.348	0.266	0.119	0.163
2016/2017	NDCL	39.827	8.973	29.548	1.306	4.217	0.249	0.126	0.168
2017/2018	NDCL	36.838	8.073	27.533	1.232	4.113	0.244	0.133	0.175
2018/2019	NDCL	30.403	4.382	24.815	1.206	3.037	0.325	0.072	0.106
2019/2020	NDCL	11.749	4.131	27.482	19.865	2.008	0.383	0.065	0.105
2020/2021	NDCL	24.550	8.561	26.223	10.233	1.658	0.393	0.048	0.079
2021/2022	NDCL	29.860	2.615	25.343	1.902	1.603	0.400	0.053	0.088
2022/2023	NDCL	38.381	10.193	28.884	0.697	1.653	0.412	0.049	0.084
2013/2014	NEA	561.720	41.891	155.338	364.492	0.547	0.841	-0.041	-0.260
2014/2015	NEA	609.172	42.216	158.309	408.648	0.588	0.865	-0.027	-0.201
2015/2016	NEA	598.239	39.351	164.470	394.418	0.644	0.877	-0.042	-0.342
2016/2017	NEA	599.617	38.850	137.706	423.062	0.742	0.755	0.006	0.024
2017/2018	NEA	546.360	58.880	128.295	359.186	0.906	0.709	0.012	0.040
2018/2019	NEA	483.551	66.392	114.964	302.195	1.212	0.638	0.028	0.078
2019/2020	NEA	444.754	86.867	195.148	162.738	1.520	0.631	0.028	0.076
2020/2021	NEA	353.642	101.694	234.788	17.161	1.392	0.626	0.007	0.020
2021/2022	NEA	352.454	59.025	199.223	94.206	1.808	0.605	0.026	0.065
2022/2023	NEA	278.209	82.197	191.456	4.556	1.719	0.582	0.016	0.039

Appendix II

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average Payment Period (APP)	20	11.7488	609.1723	257.6172	245.4640
Inventory Conversion Period (ICP)	20	2.6148	101.6942	34.5289	31.9222
Average Collection Period (ACP)	20	22.4437	234.7875	97.7087	76.4801
Cash Conversion Cycle (CCC)	20	0.6966	423.0619	129.2371	171.2160
Current Ratio (CR)	20	0.5474	4.3481	2.0601	1.3078
Debt Ratio (DR)	20	0.2443	0.8766	0.5182	0.2195
Return on Assets (ROA)	20	-0.0422	0.1326	0.0459	0.0555
Return on Equity (ROE)	20	-0.3418	0.1797	0.0422	0.1441
Valid N (listwise)	20				

Appendix III

Correlation Analysis

		APP	ICP	ACP	CCC	CR	DR	ROA	ROE
APP	Pearson Correlation	1							
ICP	Pearson Correlation	.693**	1						
ACP	Pearson Correlation	.811**	.928**	1					
CCC	Pearson Correlation	.919**	0.372	.521*	1				
CR	Pearson Correlation	-.774**	-.547*	-.649**	-.712**	1			
DR	Pearson Correlation	.959**	.653**	.808**	.875**	-.893**	1		
ROA	Pearson Correlation	-.843**	-.605**	-.760**	-.745**	.952**	-.955**	1	
ROE	Pearson Correlation	-.740**	-0.318	-.561*	-.740**	.726**	-.852**	.860**	1
	N	20	20	20	20	20	20	20	20

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

*. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis of Return on Assets

Appendix IV

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.994[a]	0.987	0.982	0.0075

a. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

Appendix V

ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.058	6	0.010	169.407	.000[b]
	Residual	0.001	13	0.000		
	Total	0.059	19			

a. Dependent Variable: Return on Assets (ROA)

b. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

Appendix VI

Regression Coefficient of ROA

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.177	0.038		4.630	0.000
	APP	0.000	0.000	0.190	0.218	0.831
	ICP	0.000	0.000	0.028	0.161	0.875
	ACP	0.000	0.000	0.160	0.489	0.633
	CCC	0.000	0.000	0.411	0.663	0.519
	CR	0.009	0.005	0.210	1.693	0.114
	DR	-0.368	0.079	-1.456	-4.644	0.000

a. Dependent Variable: Return on Assets (ROA)

Appendix VII

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.983[a]	0.966	0.950	0.0323

a. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

Appendix VIII

ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.381	6	0.064	60.776	.000[b]
	Residual	0.014	13	0.001		
	Total	0.395	19			

a. Dependent Variable: Return on Equity (ROE)

b. Predictors: (Constant), Debt Ratio (DR), Inventory Conversion Period (ICP), Current Ratio (CR), Cash Conversion Cycle (CCC), Average Collection Period (ACP), Average Payment Period (APP)

Appendix IX

Regression Coefficient of ROE

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.351	0.164		8.241	0.000
	APP	0.000	0.001	0.541	0.376	0.713
	ICP	0.000	0.001	0.033	0.112	0.912
	ACP	0.002	0.001	1.101	2.045	0.062
	CCC	0.001	0.001	1.084	1.060	0.308
	CR	-0.128	0.023	-1.163	-5.666	0.000
	DR	-2.802	0.340	-4.269	-8.246	0.000

a. Dependent Variable: Return on Equity (ROE)

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WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF NEPALESE PUBLIC ENTERPRISES: A STUDY ON PUBLIC UTILITY SECTOR A Dissertation submitted to the Office of the Dean, Faculty of Management in Partial Fulfilment of the requirements for the Master's Degree By Jay Bahadur Syangtan Campus Roll No: 631/76 Exam Roll No: 23392/020 Registration No: 7-2-726-51-2014 Shanker Dev Campus Specialization: Finance Kathmandu, Nepal July, 2024 Abstracts The main objective of this study is to investigate the impact of working capital management on the profitability of Nepal Telecom and Nepal Electricity Authority. The descriptive and causal research design was employed in this study. This study covers ten years of data collected from annual reports of sampled organizations. The collected data has been analyzed by using some statistical tools such as mean, standard deviation, correlation analysis, ANOVA and regression analysis. The collected information and the numerical data have been analyzed by using the SPSS 27.0 version to show the data and results clearly. In the regression analysis, The R square, or the coefficient of determination, was 0.987, meaning that the average payment period, inventory conversion period, cash conversion cycle, current ratio, and debt ratio can account for approximately 98.7% of the systematic variation in return on asset (ROA), with the remaining 0.013, or 1.3 percent, coming from the influence of the other factors. The coefficient of determination, or R square, was found to be 0.966. This indicates that the average payment period, inventory conversion period, cash conversion cycle, current ratio, and debt ratio account