

IMPACT OF LIQUIDITY ON PROFITABILITY OF MANUFACTURING COMPANIES IN NEPAL

A Dissertation submitted to the Office of the Dean, Faculty of Management in partial fulfillment of the requirements for the Master's in Business Studies (MBS)

by

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **“Impact of Liquidity on Profitability of Manufacturing Companies in Nepal”**. 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 has 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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REPORT OF RESEARCH COMMITTEE

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This study entitled **“Impact of Liquidity on Profitability of Manufacturing Companies in Nepal”** has been prepared in partial fulfillment for the Degree of Master of Business Studies (MBS) under the Faculty of Management, Tribhuvan University is based on research models involving the use of quantitative aspect of impact of liquidity on profitability of manufacturing companies in Nepal.

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Anil Suyal

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ABBREVIATIONS

BNTL	:	Bottlers Nepal (Tarai) Limited
CCCM	:	Cash Conversion Cycle Management
CR	:	Current Ratio
CV	:	Coefficient of Variation
EPS	:	Earnings per Share
F/Y	:	Fiscal Year
GDP	:	Gross Domestic Products
HDL	:	Himalayan Distillery Limited
LR	:	Leverage Ratio
NLO	:	Nepal Lube Oil Limited
NRB	:	Nepal Rastra Bank
NWCR	:	Net Working Capital Ratio
OLS	:	Ordinary Least Squares
QR	:	Quick Ratio
QRM	:	Quick Ratio Management
ROA	:	Return on Assets
ROE	:	Return on Equity
SD	:	Standard Deviation
Sig.	:	Significant Value
TU	:	Tribhuvan University
UNL	:	Unilever Nepal Limited

ABSTRACT

This study investigates the impact of liquidity on profitability in Nepalese manufacturing banks. Descriptive and causal research design has been employed in this study. This study used descriptive analysis, correlation analysis and multiple regression analysis to analyze the data. This study shows that there is strong liquidity position in terms of current ratio and quick ratio and also strong profitability position of sample manufacturing companies in term of ROA and ROE means sample companies earns in relative to its total resources. The correlation analysis shows that current ratio has significant positive correlation with ROA and insignificant positive relationship with ROE. Similarly, quick ratio has significant positive correlation with ROA and insignificant positive association with ROE. Moreover, correlation of leverage ratio has significant negative relationship with profitability (ROA and ROE) of manufacturing companies in Nepal. The study also reveals that current ratio has insignificant negative impact on profitability (ROA and ROE) of the manufacturing companies. At the same time, quick ratio has no significant positive impact on profitability (ROA and ROE) of manufacturing companies in Nepal whereas leverage ratio has significant negative impact on profitability (ROA and ROE) of the companies. Therefore, this study concluded that there is insignificant effect of liquidity on profitability of manufacturing companies in Nepal.

Keywords: Return assets, return on equity, current ratio, quick ratio and leverage ratio.

CHAPTER I INTRODUCTION

1.1 Background of the Study

The manufacturing sector remains one of the strongest in an economy for wealth creation. It makes it simpler to transform a country's economy from one characterized by simple, expensive, slowly expanding industries to one with more dynamic and fruitful sectors. Because of the rapid growth of technology, widespread deregulation, and growing internationalization of manufacturing, production is currently the primary method employed by developing nations to capitalize on globalization and reduce the income gap with the industrialized world (Amakom, 2012). The manufacturing sector stimulates the need for more and better services, which pulls on the other economic sectors. The manufacturing region can be examined from a local, regional, and global perspective.

Managing liquidity is an important problem that affects all types of businesses. This scenario demonstrates how easily an asset may be converted into cash. The ability of a business to pay its debts on time is measured by its liquidity. A company entity may permanently dissolve if liquidity is not managed properly. Getting money and allocating resources wisely to produce large returns are two of the difficulties faced by business managers. An efficient use of resources, particularly liquid funds, is required due to the rising cost of capital and lack of available funds. It is impossible to overstate the significance of liquidity (Garba, 2020).

Businesses mostly utilize the current ratio and quick ratio to assess their liquidity condition. The link between current assets and current liabilities is known as the current ratio. In general, a greater current ratio helps a company pay down its short-term debts more quickly. The link between quick or liquid assets and current liabilities is depicted by the quick ratio. An asset's liquidity refers to its ability to be quickly changed into cash without losing value. Low liquidity suggests that a company would not be able to fulfill its obligations to suppliers of products, services, and finance in a timely manner or to pay off its creditors. Resulting in a potential insolvency and lack of supply. Additionally, the business's operations and reputation will suffer if short-term obligations are not fulfilled. The majority of stakeholders are

most concerned about a company's liquidity condition. Therefore, maintaining sufficient liquidity is essential for businesses. The debt ratio illustrates the relationship between total obligations and total assets, or more specifically, how a corporation may use its assets to pay off its creditors. To put it briefly, it calculates the number of assets the company must sell to cover all of its debt. When liabilities exceed assets, as in the case of a debt ratio larger than one, the organization may be exposed to significant financial risk. Conversely, a ratio smaller than one signifies that the business has more assets than liabilities, which may be a positive indication for the business (Dadepo, 2020).

Fikri and Arifin (2023) explained that profitability is the ability of a business, corporation, organization, or enterprise to make money on all of its endeavors. It evaluates managers' effectiveness in maximizing organizational resources to boost value addition to the business. Profitability may be viewed as a relative and quantifiable term based on profit and its correlation with other variables that may have a direct impact on profit. Profitability is defined as "the ability of a given investment to earn a return from its use". It is said that maximizing profits is the goal of every firm. In a competitive market, a business owner must know how to achieve a necessary level of profitability. Identifying the elements of a financial plan that work and those that need to be improved is a critical first step in boosting profitability.

Companies may meet their short-term obligations without jeopardizing their profits if they maintain adequate stocks of liquidity. The objective of day-to-day operations management strategies for business owners and managers throughout the globe is to maximize profitability and wealth for shareholders while abiding by legal obligations. Effective liquidity management is all about planning and controlling current assets and liabilities so as to minimize the risk of not having enough money to cover upcoming short-term obligations while also avoiding overinvesting in these assets (Hidayat & Dewi, 2023).

Maintaining liquidity is essential to the company's success since short-term creditors will negatively rate it if it doesn't fulfill its obligations on time. This results in a decline in the market's value of goodwill, which might ultimately cause the company to perform poorly (Bhavet, 2011). An organization that upholds and executes

financial management protocols endeavors to proficiently oversee its liquidity levels in order to guarantee an appropriate equilibrium among its working capital constituents.

In the course of daily operations, managers must make difficult choices about a company's liquidity, profitability, and balance between the two. Businesses require liquidity to ensure that they can pay off their short-term loans and that their operations will be profitable. It should come as no surprise that cash is essential as a barometer of the organization's continuous financial health given its crucial role in the firm. This calls for the business to run profitably and efficiently. An imbalance between an organization's assets and liabilities may lead to a brief increase in earnings, but it also increases the likelihood of the business failing (Nguyen et al., 2024).

Arnold (2008) focused attention to the fact that having cash on hand has some benefits as well, such as covering costs for things like taxes, supplies, and salaries. Since future cash flows are unpredictable, having cash on hand provides a safety cushion against potential downturns. Having cash on hand ensures that extremely profitable ventures that require prompt payment can be undertaken. Thus, while making crucial investment decisions, it is imperative that the financial manager strike the right balance between profitability and liquidity. Managing a firm on a daily basis involves making difficult decisions about profitability, liquidity, and how to balance the two. Businesses need liquidity in order to meet their immediate financial obligations and ensure a consistent stream of income from a successful operation.

Every company needs to manage its liquidity, but manufacturing enterprises especially so when it comes to meeting their immediate financial and operating obligations expenses that are incurred now but will bear fruit later on. Most businesses manage their liquidity to satisfy both short- and long-term obligations, which are critical to reaching profitability, in order to retain their profitability. Effective liquidity management is a crucial component of overall financial management since it helps to stabilize the short-term solvency situation. It is imperative that the firm's management produces enough liquid funds to cover its daily operational expenses. Therefore, this study aimed to analyze the impact of liquidity on profitability of manufacturing companies in Nepal.

1.2 Problem Statement

The inability to generate a sufficient profit and illiquidity are two of the main factors that may lead to liquidation. These are some of the fundamental components used to gauge an establishment's "going concern." Companies are creating a variety of measures to strengthen their liquidity position as a result of these factors. Working capital management is one area where the company can use strategies to increase liquidity and cash flows. These are areas that are typically overlooked during periods of prosperous business conditions. A low liquidity level will prevent the organization from meeting its short-term obligations as they become due. Therefore, the minimal requirement for liquidity should not be met (Owolabi et al., 2011).

Asete and Kungu (2018) found that the cash ratio, quick ratio, current ratio, and cash conversion cycle had no statistically significant impact on profitability. Akinleye and Ogunleye (2019) found that the quick ratio, a stand-in for financial liquidity, had a negative and insignificant impact on profitability. The findings additionally showed that there was no discernible relationship between the liquidity and profitability of Nigerian manufacturing companies. Garba (2020) showed that while the current ratio was positive and the quick ratio was negative, neither had a significant impact on the profitability of a manufacturing company.

Zaitoun and Alqudah (2020) showed that while financial leverage had a negative impact on the profitability of Jordanian industrial listed enterprises, liquidity had a large and positive effect on profitability. Dadepo and Afolabi (2020) mentioned that the current ratio had a negative and significant impact on the profitability (ROA) of the selected firms, while the quick and cash ratios had a positive but insignificant relationship with ROA. Ayoush et al. (2021) concluded that relationship between financial leverage and profitability was statistically significant and inverse. On the other hand, findings on the influence of liquidity and solvency on profitability did not corroborate one another. Hameed et al. (2021) showed that the current ratio and creditor payment duration had a significant negative influence on return on assets (ROA). However, there was a positive correlation between inventory sales time and the quick ratio and profitability (ROA).

Lawrence and Moses (2021) stated that there was an insignificant and negative correlation between the CNT and the financial success. Additionally, QR found a small but positive correlation with the financial success of Nigerian manufacturing companies. Virginus et al. (2021) found that the current ratio management was negatively significant, quick ratio management was positively insignificant, cash conversion cycle management was positively significant, and operating cash flow (OCFM) was positively insignificant. Adekanmi et al. (2022) observed that the current ratio and the cash conversion cycle both had positive and significant effects on the financial performance. However, the financial performance of listed food and beverage companies in Nigeria was not significantly impacted by the quick/acid test ratio.

Chabbal and Umar (2022) concluded that size of companies, long-term liability to total assets, total liability to total assets and age had significant negative impact on profitability whereas, tangibility, liquidity and return on assets had significant positive impact on profitability of manufacturing companies. Mu'avidayana et al. (2022) indicated that liquidity had a positive and significant effect on profitability. Leverage also had a positive and significant effect on profitability. Hidayat and Dewi (2023) found that liquidity had no significant effect on profitability whereas leverage had a significant effect on profitability.

Mismiwati et al. (2023) revealed that liquidity had a negative and insignificant effect on profitability whereas leverage had significant negative impact on profitability. Fikri and Arifin (2023) showed the company's value was independent of liquidity but dependent on leverage, that company size had no effect on value, and that profitability could only moderate the link between company size and value. Rahmawati et al. (2024) showed that working capital had little bearing on profitability that liquidity had a major influence on profitability in the industrial sector, and that operational capital and liquidity had an impact on profitability at the same time.

Farooq et al. (2024) revealed that the relationships between operational cash flow and leverage ratio and debt ratio and leverage were statistically significant when leverage was kept at a reasonable level. Nguyen et al. (2024) provided evidence in favor of the hypothesis that growth rate, liquidity, and business efficiency all significantly and

positively impacted profitability. Empirical data has shown that there is a conflicting relationship between manufacturing companies' profitability and liquidity. Thus, the goal of this research is to determine how liquidity affects Nepalese manufacturing enterprises' profitability. In particular, this research pertains to the answers to the following queries concerning the chosen companies.

- What is the liquidity and profitability position of manufacturing companies in Nepal?
- Is there any relationship between liquidity variables and profitability of manufacturing companies in Nepal?
- What is the impact of liquidity on profitability of manufacturing companies in Nepal?

1.3 Objectives of the Study

The main objective of this study is to evaluate the impact of liquidity and profitability of manufacturing companies in Nepal. Other specific objectives are as follows:

- To examine the liquidity and profitability position of manufacturing companies in Nepal.
- To analyze the relationship between liquidity and profitability of manufacturing companies in Nepal.
- To analyze the impact of liquidity on profitability of manufacturing companies in Nepal.

1.4 Rationale of the Study

The need to understand the complex relationship between liquidity and profitability in Nepal's industrial sector serves as the justification for the research. The study's conclusions will make it possible for cement manufacturing companies to efficiently apply liquidity management strategies, allowing them to maximize the benefits of managing working capital components and increase profitability. Through lowering the risk of business failure and greatly increasing their chances of survival, this study aims to educate manufacturers and policy makers on how to establish proper rules and processes that will boost earnings in Nepali manufacturing firms. This study intends to add to the body of knowledge about the connection between corporate profitability

and liquidity management. It also focuses on cement companies in Kenya, as there hasn't been much research on these companies in recent years.

1.5 Limitations of the Study

The study is an important document in the context of liquidity and profitability in the Nepalese manufacturing sectors. The study's findings may be very beneficial to both academics and practitioners. This study has certain limitations, just like any other. Additionally, this has the following shortcomings:

- The study is limited to only four manufacturing companies of Nepal, namely; Bottlers Nepal (Terai) Limited, Unilever Nepal Limited, Nepal Lube Oil Limited and Himalayan Distillery Limited.
- The study deals with some important tools such as descriptive analysis, correlation analysis and multiple regression analysis.
- Only secondary data is used for analysis.
- The study is limited to the past eight years from 2015/16 to 2022/23.

CHAPTER II

REVIEW OF LITERATURE

A crucial and essential stage in every research project is the assessment of existing literature. Examining research papers or other pertinent claims in the relevant field of study is a necessary step in doing new research since it makes one aware of all previous studies, their shortcomings, and their findings. Examining and assessing a few relevant books, articles, published and unpublished works in various economic journals, magazines, newspapers, the annual balance sheet of the relevant companies, previous theses on related topics, and topic-related internet searches can all be used to make connections to this chapter. This chapter is divided into two sections: the theoretical review and the empirical review.

2.1 Theoretical Review

2.1.1 Theories of Liquidity

The objectives of safety, profitability, and liquidity in the financial sector often appear to be at odds with one other. Economists have occasionally made an effort to resolve these paradoxes by developing certain theories. Actually, these notions regulate the allocation of resources while bearing these objectives in mind. They are sometimes known as the theories of liquidity, and the following topics are addressed:

2.1.1.1 Cash Conversion Cycle Model

This model, which was presented by Richards and Laughlin (1980), takes into account the time it takes the business to receive cash flows and the time it takes to make payments. The words inventory conversion duration and ultimate product sales are important to understand when talking about this strategy. The former speaks of the amount of time needed to turn raw materials into finished goods. The receivables collection period is the amount of time on average that the business needs to convert its debtors into cash. On the other hand, the payables deferral period is the customary amount of time that passes between the time that labor and materials are acquired and the time that they are paid for in cash (Jose et al., 1996).

Lyrودي and Lazaridis (2000) argue that this model is relevant since it aims to change the regulations surrounding credit sales and purchases. The conditions of credit

purchase payments or the procedures for collecting cash from debtors can be changed with the use of the cash conversion cycle reports. If the cash conversion cycle indicates that the company is in a healthy liquidity position, previous credit conditions could be maintained. Its objective is to look at the cash flow of the business.

Sooner (1993) argued that the cash conversion cycle and the cash flow statement aid in the study of the cash flow analysis. To assess how well cash is managed, the cash conversion cycle data of several companies operating in the same industry may be compared. One indicator of managerial efficacy is the cash conversion cycle (CCC). It gauges how quickly businesses can convert cash on hand into more cash. This is accomplished by tracking the cash as it is first transformed into accounts payable (AP) and inventory, then into debtors and sales, and finally back into liquid cash. The smaller the amount, the better for the company. It can be particularly helpful when comparing closely held competitors, as the company with the lowest CCC typically has superior management, even though it should be used in conjunction with other measures (such as return on equity and return on assets) (Sooner, 1993).

Jose et al. (1996) argued that a company's profitability is increased by a shorter cash conversion cycle. To prevent detrimental consequences on the company's operations, the firm must, nonetheless, proceed with prudence. Reducing the time it takes to convert inventory and extending the payment deferral period can both shorten the cash conversion cycle.

2.1.1.2 Miller-Orr Model

Miller and Orr (1966) developed the model in response to a flaw in Baumol's (1952) model, which stipulates that cash flows shouldn't change. This model states that most businesses do not use their cash flows consistently, making it impossible to forecast their daily inflows and outflows of cash. They are helped by the Miller-Orr Model, which permits daily cash flow volatility. According to Miller and Orr (1998), the model additionally permits the company to allow the cash balance to fluctuate between the upper and lower control limits, buying and selling marketable securities when one of the limitations is reached.

Prasanna (2008) indicated that the net cash flows have a normal distribution with a mean of zero and a standard deviation. Together with a return point, this model offers two important control limits: an upper control limit and a lower control limit. The corporation purchases enough marketable securities to restore its cash balance to normal when its cash limit fluctuates arbitrarily and eventually reaches the top limit. The return point is there.

Maness and Zietlow (1993) stated that if the company's cash flows stray and approach the lower bound, it sells enough marketable securities to restore the cash balance to the usual level, or the return point. The uncertainty of the cash flows is recognized by this model. The benefit of this model can also be justified by the fact that seasonal changes can be taken into account when planning the cash flow distribution. This model is relevant because it makes the assumption that businesses put a lower limit on their cash holdings depending on how likely it is that they will experience a cash shortfall and how willing they are to accept that risk. On the other hand, using the model establishes the upper bound.

2.1.1.3 Free Cash Flow Theory

Myers (2003) proposed this idea, which is designed for established businesses that have a tendency to overinvest. It states that when a company's operational cash flow far outpaces its lucrative investment prospects, large debt levels will boost value even in the face of possible financial hardship. Therefore, even in the face of the possibility of financial trouble, the firm's ability to make a profit raises its worth. Positive free cash flow allows businesses to reduce their debt ratio. In order to compensate for their lack of internal funding, businesses with negative free cash flow raise their debt ratio. For businesses with comparatively higher debt levels compared to those with relatively lower debt levels, the percentage adjustment is lower (Mehran, 1992).

Despite the abundance of theoretical and empirical works, capital structure remains an unsettled issue that warrants further investigation. Modigliani and Miller (1963) examined in-depth how tax benefits affect a firm's capital structure determination. The trade-off theory proposed an ideal CS to balance the costs and benefits of using loan capital by focusing on how other external circumstances could offset the benefits of using debt.

Jensen and Meckling (1976) emphasized the agency costs associated with a conflict of interest between owners and managers, which results in the need for outside funding to finance investment opportunities. Myers and Majluf (1984) proposed a capital structure funding hierarchy. His hypothesis of the pecking order is appropriate for large, profitable companies. Donaldson (1961) was the first to propose the signaling theory, which was later expanded upon by Myers and Majluf (1984) and others. These authors illustrated the negative signal that the company would send out if it chose to issue debt capital rather than equity capital, forcing the company to issue debt capital. All of these studies examined in great depth the part that debt capital played in identifying the ideal capital structure, which would allow the company to boost profits and raise its overall worth. Nevertheless, the factors that determine the ideal capital structure are still up for debate.

2.1.1.4 Liquidity Preference Theory

Bibow (2006) argued that people value money because they can use it for both regular transactions and wealth storage, supporting Keynes' theory of liquidity preference. As a result, they will pass up the chance to earn interest on money that they want to use right away and save for emergencies. But investors are less likely to hold money for these purposes in an attempt to turn a profit when interest rates rise.

Elgar (1999) indicated that there are many reasons why people require money, such as funding anticipated costs, forecasting interest rate movements, or just not knowing what the future holds and realizing that it is best to keep some of one's resources in the form of pure purchasing power. These demands for cash were eventually identified as being made for transactional, speculative, and preventative purposes. The company's liquidity preference strategy suggests that enterprises actively manage their balance sheets instead of just passively providing credit demand.

2.1.1.5 Baumol's Model

Companies can use the inventory management model developed by Baumol in 1952 to figure out how much cash they should have on hand. He explained how the expenses related to purchasing and storing cash are comparable to those related to inventory. He came to the conclusion that a reasonable person would search for cash in an amount equivalent to the square root of the value of these transactions given the

current level of prices. The cash manager will invest excess funds in interest-bearing securities and sell them to meet the company's cash needs, based on the Baumol model. The cash manager lowers the quantity of cash on hand since it becomes more expensive to hold cash when investment returns increase. Cash managers are compelled to liquidate securities less frequently due to higher transaction costs, or the cost of doing so, which results in higher cash holdings. However, just like the economics order quantity model, Baumol's model has limits when it comes to depending on the assumptions of steady and predictable demand as well as quick supplies while seeking replacement funds.

2.1.2 Concept of Liquidity

Liquidity is crucial to the efficient operation of a firm. A firm has to know how much liquidity it has in order to satisfy its immediate demands. A study of liquidity is valuable to professionals both inside and outside the organization since it is closely related to the day-to-day activities of the latter. These circumstances push company executives to devise new approaches for managing internally produced money in order to increase their chances of making a profit and satisfying present shareholder expectations (Maqbool et al., 2019).

Dalgaard (2009) describes liquidity is the extent to which a security or asset can be bought or sold on the open market without influencing the asset's price. The author goes on to say that an asset that is liquid has a large volume of trading activity and is essential to the operation of financial markets. When investors may sell their shares at prices that do not result in significant losses and obtain the funds they require to meet other obligations, the market is said to be liquid. A company that is losing money could be deemed unhealthy, but one that is cash-strapped will soon go out of business. As a matter of fact, a nonfinancial company's basic survival depends on its ability to maintain liquidity. A company's liquidity condition is typically examined with the use of a few significant ratios that are calculated based on several working capital components, either separately, together, or both.

Khan and Safiuddinm (2016) explained a company's "liquidity" is determined by its capacity to pay its short-term maturing debts within a year. A company's liquidity resources can be held in a variety of ways, including short-term deposits, cash on

hand and in the bank, reserves drawn via a cash credit or overdraft agreement, and reserves drawing power. Current account cash balances offer the highest level of liquidity. If a company owns assets that are easily transferred or sold for a profit with little loss on sale, it can continue to be liquid. Keeping the right amount of liquidity on hand is essential to the daily operations of any kind of firm.

Raheman and Mohamed (2007) stated that liquidity is essential to the business's ability to operate successfully. A company has to make sure that it has enough or too little liquidity to cover its immediate liabilities. Financial measures referred to as liquidity ratios are used to quantify a company's liquidity. This set of ratios assesses the company's capacity to pay its present debts (liabilities). The most often used measures to show how much liquidity there is or isn't are the cash flow ratio, operating cash flow ratio, and receivable collection period (RCP).

2.1.3 Concept of Profitability

Akinleye and Ogunleye (2019) stated that profitability is the ability of a company to make money on all of its commercial ventures. It shows how efficiently the management can make money by making use of every available resource. One of the most popular measures for evaluating profitability is the profitability ratio. Ratios of profitability show a company's total effectiveness and efficiency. Profitability is a key aspect in shareholders' goal of maximizing their capital, and investments in current assets are only undertaken when a suitable return is obtained.

Maheshwari (2001) defined profitability is the ultimate indicator of a business's financial performance in relation to its invested capital. The size of the net profit accounting determines this economic success. A company operating in a capitalist economy seeks to maximize its return relative to the level of risk taken by its shareholders. Profit, after all, is what drives any investment in various enterprises. The most important metric for evaluating economic success is return on equity (ROE), which is equal to net income divided by equity, and return on assets (ROA), which is equal to net income divided by total assets.

Profitability is the ability of a business to make money with the resources it currently has. Growing a business's profitability helps it build a solid reputation that draws in

lenders, investors, and state management agencies. As a result, there is a great deal of interest in the study of profitability and the variables that affect it. Many studies have examined the ways in which different factors impact profitability in a variety of sectors, industries, and countries. Profitability is a key performance indicator in company assessment. Profitability ratios are used to show how much profit or profit gained from the firm's performance effects the recording of financial statements. They must comply with the financial accounting requirements of the company (Farhan et al., 2020).

2.1.4 Determinants of Profitability

The factors that propel a company in the direction of success are called determinants of profitability. The following characteristics have been utilized in this study to try and identify a company's profitability: market share, growth, size, free cash flow, and physical investment.

2.1.4.1 Growth of the Firm

Profitability is determined by the firm's growth, which is attributed to an increase in net assets. Businesses are collections of specific resources that offer the tools needed to successfully seize opportunities and expand (Barney, 1991). Due to their larger asset bases and ability to make lucrative large investments, large organizations expand faster than small ones. Businesses that expand quickly are more likely to increase their profitability. Businesses with rapid growth tend to have high sales turnover, which is critical to the expansion and growth of the company. High returns on investments and a greater decrease in expenses are characteristics of growing businesses. An rise in total assets indicates strong growth and often higher profitability. Growth is expressed as an increase in total assets as a percentage. Therefore, we anticipate a favorable correlation between the firm's growth rate and profitability (Sebastian, 2010).

2.1.4.2 Size of the Firm

The size of the company is the other factor that affects financial performance. Compared to small businesses, large businesses are more likely to manage their working funds more effectively. Because most large businesses benefit from

economies of scale, they can reduce expenses and increase their financial performance (Owolabi et al., 2011). Sales volume is a key indicator of a company's size.

The log of net sales is the surrogate used to determine the firm's size. Numerous writers, including Pandey (2005), have discovered a negative correlation between a firm's size and leverage. This is because larger businesses tend to be more transparent, which lowers the undervaluation of new stock issues and encourages firms to raise capital through equity. Larger companies often have higher profitability because as a business grows in size, profitability likewise grows. This indicates that a favorable correlation between the company's size and profitability is anticipated (Pandey, 2005).

2.1.4.3 Market Share

Increased market share has a significant impact on a company's profitability. Corporate executives and consultants have long recognized the link between market share and profitability, and the findings of the Marketing Science Institute's project on the Profit Impact of Market Strategies (PIMS) amply illustrate this point. Deloof (2003) elucidated that the attainment of economies of scale in procurement, manufacturing, marketing, and other cost components by large-scale enterprises is a clear indication of their high rate of return (Chakraborty, 2008).

Chakraborty (2008) noted that the cost of gaining market share is related to the costs of investment products in perfect markets, therefore one must expect prices to adapt in order to get a long-term return on investment in market share. This indicates that a higher price paid up front to obtain market share equals the higher rewards that come with having a large market share. Since size and economies of scale are related, and growth is required to reach size, it might be claimed that growth is a sign of future profitability. Larger organizations have been demonstrated to have greater survival rates. Businesses that grow quickly in a new market may also benefit financially from early access to distribution channels and exclusive agreements with suppliers and customers, which could result in an advantageous cost structure.

2.1.4.4 Free Cash Flow

One factor that determines profitability is free cash flow. The amount of cash a business makes after deducting capital expenses for things like buildings and

equipment is known as free cash flow. Sufficient liquidity management is essential to the seamless functioning of businesses. In order to reinvest on other tangible assets, pay investors, and maintain cash inside the company, managers often hold a sizable portion of the company's assets in cash and cash equivalents.

Free cash flow is the amount of cash left over after all costs and requirements for the firm are met in order to maintain it in an operational state for resource providers. When working capital components are managed properly, businesses can retain extra free cash flows, which they can use to make profitable investments that will increase their profitability (Pandey, 2005).

2.1.4.5 Physical Investment

Owolabi et al. (2011) noted that physical investment, or an increase to the stock of capital goods, is the present product placed aside for future production within a specific time period. Since physical projects need a significant amount of capital, foreign investors should borrow money to make them.

Since borrowing is less expensive than alternative methods of funding tangible investments, investors can take advantage of these investments because their returns are larger than the costs associated with financing tangible investments. Physical capital expenditure is anticipated to have a favorable impact on profitability since it increases output, which aims to improve cash flow, sales, and the potential to generate profits. Based on information from financial statements and the assumption that fixed assets increase is how most new investments materialize, this variable is computed as the gross fixed asset growth rate over two years (Padachi, 2006).

2.1.4.6 Liquidity

Padachi (2006) argued a firm's liquidity is a major factor in determining its profitability. Liquidity gap and liquidity ratios are the two primary techniques for calculating liquidity risk. The difference between assets and obligations at both current and future periods is known as the liquidity gap. The quantity of capital that is accessible for expenditure and investment is known as liquidity. Equity, credit, and cash are examples of capital. Credit, not cash, makes up the majority of the capital.

This is a result of the big financial organizations' preference to employ borrowed funds for the majority of their investments (Owolabi et al., 2011).

A positive difference between liabilities and assets is always the same as a deficit. Different balance sheet ratios known as liquidity ratios are used to determine the primary trends in liquidity. These percentages show that the company has to ensure that suitable, affordable capital is accessible quickly. This could entail keeping a portfolio of easily liquid assets, such as government securities, cash reserves, or minimum necessary reserves (Padachi et al., 2008).

2.1.5 Relationship between Liquidity and Profitability

Liquidity management of a corporation is determined by how well its working capital components are managed. A firm's profitability and the components of its working capital management are significantly correlated, as evidenced by the degree to which working capital management influences trading enterprises' financial performance (Bhunja, 2010). Managing a firm on a daily basis involves making difficult decisions about profitability, liquidity, and how to balance the two. Businesses need liquidity in order to meet their immediate financial obligations and ensure a consistent stream of income from profitable ventures.

Peterson and Rajan (1997) argued that a working capital approach is less risky and will provide lesser profitability the more money is invested in current assets. When there is more financial slack in this scenario as opposed to a less liquid working capital structure, the returns are lower. Similarly, a lower net working capital ratio limits the amount of money invested in less profitable assets, which helps to generate higher return rates even while it increases the danger of insolvency and reduces the company's safety buffer. This risk-return ratio operates in such a way that any change in liquidity always results in a corresponding increase in profitability. In this manner, any business should determine how much net working capital best suits its profit margins and risk tolerance.

Ross et al. (2007) observed that there is a negative relationship between profitability and liquidity. Managers are therefore forced to choose between optimizing profitability and maintaining high levels of net working capital, which presents a

challenge. We call this the trade-off between profitability and liquidity. This conundrum would result from the high prices applied to current assets, which tend to create maintenance expenses rather than directly adding value to the business and producing profitability.

Panigrahi et al. (2018) explained liquidity is essential to any business's ability to operate profitably. Maintaining liquidity on a daily basis is crucial to working capital management since it helps the company meet its obligations and run smoothly. As a result, it is critical to closely monitor the company's liquidity position because without it, it cannot survive. However, initiatives to boost profitability have a tendency to decrease a company's liquidity, and an excessive focus on liquidity has a tendency to negatively impact profitability. Without a question, every business seeks to retain liquidity in order to optimize profits. Nevertheless, boosting earnings at the expense of liquidity might put the company in danger of major issues, such as financial collapse. It is crucial that the firm's liquidity is properly balanced because too much liquidity, on the one hand, suggests that idle funds are building up and aren't producing any profits for the company, and too little liquidity could harm the company's reputation and credit standing, which could result in the forced liquidation of the company's assets.

2.2 Empirical Review

Asete and Kungu (2018) analyzed effects of liquidity management on profitability of quoted manufacturing firms in Kenya. The main objective of the study was to assess how liquidity management affected the profitability of Kenya's twelve listed industrial companies. Both descriptive and inferential data approaches were used to analyze the data. In the descriptive data analysis, the mean, standard deviation, minimum, and maximum values were computed. For inferential data analysis, correlation, ANOVA, and regression were used. Regression analysis and correlation were used to look at how the independent factors affected the dependent variables. The ROA served as a proxy for the profitability of the enterprises, while the cash conversion cycle, quick ratio, current ratio, and cash ratio were used to assess the liquidity of the organizations. It was found that the cash ratio, quick ratio, current ratio, and cash conversion cycle had no statistically significant impact on profit. The analysis's

conclusions showed that the profitability of Kenyan manufacturing companies was significantly impacted by each independent variable taken together. Two null hypotheses were supported and three rejected by the study. Since it was discovered that the current ratio, quick ratio, and cash ratio had a statistically significant impact on the profitability of manufacturing enterprises in Kenya, the null hypotheses that claimed otherwise were rejected. It was determined that the cash conversion cycle and the joint independent variables did not significantly affect the manufacturing businesses' profitability that was listed on the Nairobi Securities Exchange. As a result, neither of the two theories held water. The report suggests that manufacturing companies shorten the time it takes for suppliers to return their debts and hire professionals to handle their accounts receivable in order to improve their cash flow. To avoid some businesses experiencing cash flow issues, the government ought to impose regulations on the manufacturing industry.

Akinleye and Ogunleye (2019) investigated liquidity and the profitability of manufacturing firms in Nigeria. The main objective of the research was to explore the correlation between Nigerian manufacturing companies' profitability and liquidity. The impact of the cash, current, and quick ratios on the profit after taxes of Nigerian manufacturing companies was particularly examined in this study. Over a ten-year period (2007-2016), secondary data were gathered from the annual reports of selected firms. Panel data estimators, including the pooled OLS estimator, fixed effect estimator, random effect estimator, Hausman test, panel co-integration, and pooled Granger causality tests, were used to analyze the data. It was found that the quick ratio, a stand-in for financial liquidity, has a negative and insignificant impact on profitability. The profitability is positively and significantly impacted by the cash ratio, which quantifies financial liquidity. Additionally, the findings showed that the current ratio a gauge of financial liquidity had an insignificant adverse effect on profitability. The findings additionally showed that there was no discernible relationship between the liquidity and profitability of Nigerian manufacturing companies. The study concluded that certain Nigerian manufacturing enterprises' financial performance has improved as a result of financial liquidity. Additionally, the cash ratio significantly and favorably impacted Nigerian manufacturing firms' profitability. So, in order to maximize their profitability, manufacturing companies

should consciously work to lower their accounts receivable in order to discourage clients from delaying payment.

Garba (2020) analyzed effect of liquidity management on profitability of listed manufacturing firms in Nigeria. The primary aim of the research was to examine the impact of liquidity management strategies on the profitability of Nigerian manufacturing firms. Every manufacturing company listed on the Nigerian Stock Exchange (NSE) is included in the study's sample size. The financial statements of the listed companies, which span a five-year period (2008-2017), provided secondary data. Correlation matrices and Ordinary Least Square regression methods were used to analyze the acquired data. The findings of the research showed that while the current ratio is positive and the quick ratio is negative, neither had a significant impact on the profitability of a manufacturing company. On the other hand, there was a notable and favorable relationship between return on asset and debt ratio. It was suggested that management appropriately manage their debt in order to enhance profitability, as the debt ratio has a significant influence on profitability.

Zaitoun and Alqudah (2020) administered the impact of liquidity and financial leverage on profitability: the case of listed Jordanian industrial firm's. The primary goal of the research was to assess how liquidity and financial leverage affected the firm's profitability as determined by return on assets (ROA). The enterprises in the industrial sector that were listed on the Amman Stock Exchange comprised the study's population. The 54 annual reports from 2015 to 2019—a five-year period—that were retrieved from the firms' websites were used in this study using Version 19 of the Statistical Package for the Social Sciences (SPSS). The findings showed that while financial leverage had a negative impact on the profitability of Jordanian industrial listed enterprises, liquidity has a large and positive effect on profitability. Since profitability is crucial for all Jordanian industrial listed companies, this study aimed to broaden the perspective by enabling industrial listed companies to achieve profitability. The regulators may find the results helpful in proposing new laws and rules for the Amman Stock Exchange and the Financial Ministry.

Dadepo and Afolabi (2020) evaluated impact of liquidity management on profitability of selected manufacturing firms in Nigeria. The main objective of the study was to look at how liquidity management affected the performance of the 10 manufacturing companies that were selected over a five-year period (2012–2016). Secondary data was collected and included in these companies' annual reports and accounts. The data analysis procedure included the use of descriptive statistics, correlation analysis, and regression analysis. The current ratio had a negative and significant impact on the profitability (ROA) of the selected firms, while the fast and cash ratios had a positive but insignificant relationship with ROA. Thus, it was recommended that a conscious focus on liquidity management be made in order to boost the profitability of Nigerian manufacturing enterprises.

Ayoush et al. (2021) investigated liquidity, leverage, and solvency: what affects profitability of industrial enterprises the most? This study examined the impacts of liquidity, leverage, and solvency on the profitability of industrial enterprises listed on the Amman Stock Exchange in order to ascertain which element had the most bearing on profitability. To achieve the objectives of this study, 44 industrial firms in Jordan are examined from 2012 to 2018. Assessments are made on the following criteria: financial solvency (interest coverage ratio), leverage measurements debt ratio and debt to equity ratio, liquidity metrics current ratio and quick ratio, and performance metrics return on assets (ROA) and return on equity (ROE). Multiple regression analysis was done to confirm the theories. The relationship between financial leverage and profitability was statistically significant and inverse. On the other hand, findings on the influence of liquidity and solvency on profitability did not corroborate one another. Moreover, leverage had the highest relative impact among the independent variables that determined profitability, followed by solvency and liquidity. Furthermore, it showed that the firm's size governed the relationship between liquidity, leverage, solvency, and performance. As a result, it was concluded that management of industrial companies should reduce their reliance on debt in order to finance their operations and maximize returns; that companies should monitor their solvency levels in order to maintain strong financial performance; and that maintaining a sufficient level of liquidity is advised in order to ensure business continuity.

Hameed et al. (2021) examined liquidity management and profitability of textile sector of Pakistan. The primary goal of the study was to look at how liquidity management affected textile industry companies listed on the Pakistan Stock Exchange (PSE) during a five-year period. The annual reports of these firms provided the secondary data. Regression analysis and correlation were used to examine the data. The results showed that the current ratio and creditor payment duration have a substantial negative influence on return on assets (ROA). However, there was a positive correlation between inventory sales time and the quick ratio and profitability (ROA). On the other hand, the debtor collection time has an extremely negative and severe effect on the companies' profitability. As a result, it is advised that Pakistan's textile industry consider liquidity management as a key tool for increasing profitability.

Lawrence and Moses (2021) investigated effect of liquidity management on financial performance of manufacturing firms in Nigeria. The primary aim of the research was to examine the impact of liquidity management on the financial outcomes of Nigerian manufacturing companies between 2010 and 2019. It looked at how the financial performance (PAT) of Nigerian manufacturing companies was affected by the Current Ratio (CNT), Quick Ratio (QR), Cash Ratio (CR), and Net Working Capital Ratio (NWCR). Since the data were easily obtainable and taken from the publicly available annual reports of the manufacturing companies in the sample, an ex-post-factor study approach was used. Using a judgmental sampling approach, ten manufacturing businesses that are quoted on the Nigeria Stock Exchange (NSE) were selected for sampling. The Pearson correlation coefficient methodology was used to test the hypothesis, and the ordinary least squares method (OLS) was used for the analysis. According to data analysis findings, there was an insignificant and negative correlation between the CNT and the financial success of Nigerian manufacturing companies. Additionally, QR found a small but positive correlation with the financial success of Nigerian manufacturing companies. Concurrently, there existed an unfavorable and insignificant correlation between the Cash ratio and the fiscal outcomes of Nigerian manufacturing companies. However, it was discovered that there was a positive but insignificant relationship between NWCR and the financial success of Nigerian manufacturing companies.

Virginus et al. (2021) examined logical consequence of liquidity management on firm profitability. The primary goal of the research was to examine how liquidity management affects the performance of businesses. Purposive sampling was used in conjunction with an ex-post factor study approach to focus on 20 consumer items that have full financial information from 2010 to 2019 available in the Nigerian Stock Exchange Fact Book, 2020. The panel data design was used in the analysis, and multiple regressions, descriptive statistics, Pearson's product moment correlation coefficient, and the Variance Inflation Factor VIF Test (multicollinearity) were employed. The study found that the four explanatory variables on the return on assets (ROA) of the surveyed Nigerian firms are: current ratio management (CRM) was negatively significant, quick ratio management (QRM) was positively insignificant, cash conversion cycle management (CCCM) was positively significant, and operating cash flow (OCFM) was positively insignificant. It recommends that firm management policy makers focus on ways to sustain and increase profitability through efficient control over these discrete elements; our contributions include the extensive body of scholarly work and the most recent model utilized in the study. The inference suggests that, when handled well, several liquidity management components enhance company performance. But each variable applied to ROA has a logical consequence that depends on how effective the management program is.

Adekanmi et al. (2022) analyzed the effect of liquidity management on financial performance of selected listed food and beverage firms in Nigeria. The primary aim of the research was to examine the impact of liquidity management techniques on the financial performance of publicly traded food and beverage companies in Nigeria. In order to examine the link between the variables, secondary data was collected and an ex-post-facto research design was employed in the study. Regression analysis utilizing ordinary least squares was used to examine the obtained data. From the results of the investigation, it was found that the current ratio and the cash conversion cycle both had positive and significant effects on the financial performance of listed food and beverage companies in Nigeria. However, the financial performance of listed food and beverage companies in Nigeria was not significantly impacted by the quick/acid test ratio. The results of the study showed that the present ratio did not significantly influence Nigerian food and beverage performance. The acid test ratio, a

liquidity measuring ratio that also functioned as an effective liquidity predictor of such firms' financial success, was favorably and significantly connected with the financial performance of listed food and beverage companies in Nigeria.

Chabbal and Umar (2022) administered liquidity management and corporate profitability: Evidence from Nigerian listed consumer goods companies. The main objective of the research was to evaluate how Nigerian consumer goods companies with stock market listings may increase their profitability and so benefit investors. The study uses secondary data from the Audited Annual Accounts and Reports of the twenty consumer goods businesses that were listed between 2012 and 2019 on the floor of the Nigerian Stock Exchange, of which fourteen were sampled. Throughout the duration of the study, the samples must not have been delisted and had to be readily available data. Regression analysis on panel data was performed using STATA. This study found that size of companies, long-term liability to total assets, total liability to total assets and age had significant negative impact on profitability whereas, tangibility, liquidity and return on assets had significant positive impact on profitability of manufacturing companies. The study recommends that consumer product companies in Nigeria establish an efficient inventory management system to help them avoid stock-out situations. In order to ensure that credit sales are made to customers who are creditworthy and have a good credit score, monitoring methods must also be in place. On the other hand, by cutting capital costs and enforcing import duties, the government may help enterprises become more profitable.

Mu'avidayana et al. (2022) analyzed the influence of financial liquidity and leverage on profitability in manufacturing companies listed on Idx 2015 – 2019. This study evaluated and assessed the effect of financial leverage and liquidity on profitability using five samples of companies registered on the Indonesia Stock Exchange from 13 populations of manufacturing enterprises in the Automotive Sub-Sector and its Components. The test technique used to determine the influence of the independent and dependent variables is multiple linear regression analysis. The results of the study indicated that liquidity had a positive and significant effect on profitability. Leverage also had a positive and significant effect on profitability. The profitability of manufacturing companies in the automotive subsector and its components that are

simultaneously listed on the Indonesia stock exchange is influenced by liquidity and leverage.

Hidayat and Dewi (2023) assessed the effect of liquidity, leverage, and working capital turn on profitability. The purpose of this research was to analyze the effect of liquidity, leverage, and working capital turnover on profitability in coal mining companies listed on the Indonesia Stock Exchange from 2017 to 2020. The data used in this study was quantitative. The data used was secondary data. The Sampling technique used was purposive sampling, and there were 12 firms with research for four years; this obtained 48 observations. The data analysis method used in this study was Panel data regression analysis using reviews 9. This study found that liquidity had no significant effect on profitability whereas leverage had a significant effect on profitability. Moreover, working capital turnover had no significant effect on the profitability of coal mining sub-sector companies listed on the Indonesia Stock Exchange.

Mismiwati et al. (2023) analyzed liquidity and leverage's impact on profitability from 2018 to 2022. The purpose of this study was to ascertain how leverage and liquidity affected the profitability of mining businesses in the coal mining subsector that are listed on the Indonesia Stock Exchange between 2018 and 2022. Using the 18 sample firms' financial reports, the researcher gathered secondary data on 93 populations. Furthermore, panel data regression analysis was utilized to obtain results demonstrating that leverage and liquidity have a simultaneous impact on the profitability of mining companies involved in the coal mining sub-sector for the period of 2018–2022. Liquidity had a negative and insignificant effect on profitability whereas leverage had significant negative impact on profitability.

Fikri and Arifin (2023) assessed the effect of liquidity, leverage and company size on company value with profitability as a moderating variable in manufacturing companies listed on the Indonesia Stock Exchange in 2019-2021. This study aimed to determine the effects of liquidity, leverage, and company size on company value in manufacturing companies in the consumer products sector listed on the Indonesia Stock Exchange in 2019–2021, with profitability acting as a moderating variable. Samples were collected via purposeful sampling in accordance with predetermined

standards. The data contains 83 companies that meet the criteria. The sample processing strategy was moderated regression analysis using the SPSS software. The results of the research showed the company's value was independent of liquidity but dependent on leverage, that company size had no effect on value, and that profitability could only moderate the link between company size and value.

Rahmawati et al. (2024) examined working capital and liquidity to the profitability of manufacturing companies listed on the IDX in 2019-2022. The main objective of the study was to investigate the relationship between market liquidity, profitability, and employment modes in the manufacturing sector. The goal was to comprehend how these factors interact and affect a company's overall worth in a particular sector and market. This study used quantitative approaches based on relevant measurements and financial data for a sample of ten manufacturing firms. This study used regression modeling and statistical analysis to look at the relationship between working model, profitability, and market liquidity. The findings showed that working capital had little bearing on profitability, that liquidity had a major influence on profitability in the industrial sector, and that operational capital and liquidity have an impact on profitability at the same time. The results, which offer factual data unique to the manufacturing industry, add to the body of knowledge already available on firm values.

Farooq et al. (2024) analyzed the influence of moderate leverage impact of liquidity ratios on the financial performance of sugar sector in Pakistan. The study looks into how the debt ratio, operating cash flow ratio, quick ratio, current ratio, firm age, and moderate leverage affect the financial performance of the sugar industry in Pakistan. The study, which has Pakistan as its primary focus, gathered information on 25 sugar firms between 2012 and 2022. Annual reports of the Pakistan Stock Exchange provided secondary data. Correlation and regression analysis were performed for data analysis. The relationships between operational cash flow and leverage ratio and debt ratio and leverage were statistically significant when leverage was kept at a reasonable level. These results provided important context for the regression analysis, indicating that the degree of corporate leverage was a key factor in determining how these factors relate to profits per share (EPS). Conversely, at a moderate leverage ratio, variables like firm age with leverage ratio, quick ratio with leverage ratio, and

current ratio with leverage lack statistical significance. Excessively high debt ratios indicate significant reliance on debt financing, which could lead to higher interest rates and increased financial risk, both of which could reduce earnings per share (EPS). These are the practical effects of specific financial ratios on EPS. On the other hand, strong operational cash flow ratios, high current ratios, and fast ratios are frequently regarded as positive indicators of EPS.

Nguyen et al. (2024) examined the impact of liquidity and corporate efficiency on profitability. The primary aim of the research was to examine and ascertain the pattern and degree of how a company's efficiency and liquidity affect its profitability. The top 100 listed firms in Vietnam's audited financial statements are the subject of research data collection. To choose the best analytic model, regression models (pooled OLS, FEM, and REM) and the required tests are employed. GLS regression is used to overcome model faults. The results of the study provided evidence in favor of the hypothesis that growth rate, liquidity, and business efficiency all significantly and positively impacted profitability. The results of the study also demonstrated a significant negative association between financial leverage and profitability. This study was the first to look at the connection between profitability, liquidity, and company efficiency all at once.

Table 1

Summary of Empirical Review

S. N.	Authors	Title	Objectives	Methodology	Major Findings
1	Asete and Kungu (2018)	Effects of liquidity management on profitability of quoted manufacturing firms in Kenya.	The main objective of the study was to assess how liquidity management affected the profitability of Kenya's twelve listed industrial companies.	Regression analysis and correlation were used to look at how the independent factors affected the dependent variables	It was found that the cash ratio, quick ratio, current ratio, and cash conversion cycle had no statistically significant impact on profit. The analysis's conclusions showed that the profitability of Kenyan manufacturing companies was significantly impacted by each independent variable taken together.
2	Akinleye and Ogunleye (2019)	Liquidity and the profitability of manufacturing firms in	The main objective of the research was to explore the correlation	The pooled OLS estimator, fixed effect, random effect estimator,	It was found that the fast ratio, a stand-in for financial liquidity, has a negative and insignificant impact on profitability. The profitability is positively and significantly

		Nigeria.	between Nigerian manufacturing companies' profitability and liquidity.	Hausman test, panel co-integration, and pooled Granger causality tests, were used.	impacted by the cash ratio, which quantifies financial liquidity. Additionally, the findings showed that the current ratio a gauge of financial liquidity had an insignificant adverse effect on profitability.
3	Garba (2020)	Effect of liquidity management on profitability of listed manufacturing firms in Nigeria.	The primary aim of the research was to examine the impact of liquidity management strategies on the profitability of Nigerian manufacturing firms.	Correlation matrices and Ordinary Least Square regression methods were used to analyze the acquired data	The findings of the research showed that while the current ratio is positive and the quick ratio is negative, neither had a significant impact on the profitability of a manufacturing company. On the other hand, there was a notable and favorable relationship between return on asset and debt ratio.
4	Zaitoun and Alqudah (2020)	The impact of liquidity and financial leverage on profitability: The case of listed Jordanian industrial firm's household investors.	The primary goal of the research was to assess how liquidity and financial leverage affected the firm's profitability as determined by return on assets (ROA).	Multiple regression was used for data analysis.	The findings showed that while financial leverage had a negative impact on the profitability of Jordanian industrial listed enterprises, liquidity has a large and positive effect on profitability.
5	Dadepo and Afolabi (2020)	Impact of liquidity management on profitability of selected manufacturing firms in Nigeria.	The main objective of the study was to look at how liquidity management affected the performance of the 10 manufacturing companies	. The data analysis procedure included the use of descriptive statistics, correlation analysis, and regression analysis.	The current ratio had a negative and significant impact on the profitability (ROA) of the selected firms, while the fast and cash ratios had a positive but insignificant relationship with ROA.
6	Ayoush et al. (2021)	Liquidity, leverage, and solvency: What affects profitability of industrial enterprises	This study examined the impacts of liquidity, leverage, and solvency on the profitability	Multiple regression analysis was done to confirm the theories.	The relationship between financial leverage and profitability was statistically significant and inverse. On the other hand, findings on the influence of liquidity and solvency on profitability did not corroborate one another.

		the most?	of industrial enterprises listed on the Amman Stock Exchange		Moreover, leverage had the highest relative impact among the independent variables that determined profitability, followed by solvency and liquidity.
7	Hameed et al. (2021)	Liquidity management and profitability of textile sector of Pakistan. Behavioral factors and investment decision: A case of Nepal.	The primary goal of the study was to look at how liquidity management affected textile industry companies listed on the Pakistan Stock Exchange	Regression analysis and correlation were used to examine the data.	The results showed that the current ratio and creditor payment duration have a substantial negative influence on return on assets (ROA). However, there was a positive correlation between inventory sales time and the quick ratio and profitability
8	Lawrence and Moses (2021)	Effect of liquidity management on financial performance of manufacturing firms in Nigeria.	The primary aim of the research was to examine the impact of liquidity management on the financial outcomes of Nigerian manufacturing companies	The Pearson correlation coefficient methodology was used to test the hypothesis, and the ordinary least squares method (OLS) was used for the analysis.	According to data analysis findings, there was an insignificant and negative correlation between the CNT and the financial success of Nigerian manufacturing companies. Additionally, QR found a small but positive correlation with the financial success of Nigerian manufacturing companies.
9	Virginus et al. (2021)	Logical consequence of liquidity management on firm profitability.	The primary goal of the research was to examine how liquidity management affects the performance of businesses.	Multiple regressions, descriptive statistics, Pearson's product moment correlation coefficient were employed.	The study found that the four explanatory variables on the return on assets (ROA) of the surveyed Nigerian firms are: current ratio management (CRM) was negatively significant, quick ratio management (QRM) was positively insignificant, cash conversion cycle management (CCCM) was positively significant, and operating cash flow (OCFM) was positively insignificant.
10	Adekanmi et al. (2022)	The effect of liquidity management on financial performance of selected listed food	The primary aim of the research was to examine the impact of liquidity management	Regression analysis utilizing ordinary least squares was used to examine the	It was found that the current ratio and the cash conversion cycle both had positive and significant effects on the financial performance of listed food and beverage companies in Nigeria. However, the

		and beverage firms in Nigeria.	techniques on the financial performance o	obtained data	financial performance of listed food and beverage companies in Nigeria was not significantly impacted by the quick/acid test ratio.
11	Chabbal and Umar (2022)	Liquidity management and corporate profitability: Evidence from Nigerian listed consumer goods companies.	The main objective of the research was to evaluate how Nigerian consumer goods companies	Regression analysis on panel data was performed using STATA.	This study found that size of companies, long-term liability to total assets, total liability to total assets and age had significant negative impact on profitability whereas, tangibility, liquidity and return on assets had significant positive impact on profitability of manufacturing companies.
12	Mu'avidayana et al. (2022)	Analysis of the influence of financial liquidity and leverage on profitability in manufacturing companies listed on Idx 2015 – 2019	This study evaluated and assessed the effect of financial leverage and liquidity on profitability using five samples of companies registered on the Indonesia Stock Exchange	The test technique used to determine the influence of the independent and dependent variables is multiple linear regression analysis	The results of the study indicated that liquidity had a positive and significant effect on profitability. Leverage also had a positive and significant effect on profitability.
13	Hidayat and Dewi (2023)	The effect of liquidity, leverage, and working capital turn on profitability.	The purpose of this research was to analyze the effect of liquidity, leverage, and working capital turnover on profitability in coal mining companies listed on the Indonesia Stock Exchange	The data analysis method used in this study was Panel data regression analysis using reviews 9.	This study found that liquidity had no significant effect on profitability whereas leverage had a significant effect on profitability. Moreover, working capital turnover had no significant effect on the profitability of coal mining sub-sector companies listed on the Indonesia Stock Exchange.
14	Mismiwati et al. (2023)	Liquidity and leverage's impact on profitability	The purpose of this study was to ascertain how leverage and	The panel data regression analysis was utilized to	This study found that leverage and liquidity have a simultaneous impact on the profitability of mining companies involved in the coal

		from 2018 to 2022.	liquidity affected the profitability of mining businesses in the coal mining subsector	obtain results	mining sub-sector for the period of 2018–2022. Liquidity had a negative and insignificant effect on profitability whereas leverage had significant negative impact on profitability.
15	Fikri and Arifin (2023)	The effect of liquidity, leverage and company size on company value with profitability as a moderating variable in manufacturing companies listed on the Indonesia Stock Exchange.	This study aimed to determine the effects of liquidity, leverage, and company size on company value in manufacturing companies in	The sample processing strategy was moderated regression analysis using the SPSS software	The results of the research showed the company's value was independent of liquidity but dependent on leverage, that company size had no effect on value, and that profitability could only moderate the link between company size and value.
16	Rahmawati et al. (2024)	Working capital and liquidity to the profitability of manufacturing companies listed on the IDX in 2019-2022.	The main objective of the study was to investigate the relationship between market liquidity, profitability, and employment modes in the manufacturing sector	This study used regression modeling and statistical analysis	The findings showed that working capital had little bearing on profitability, that liquidity had a major influence on profitability in the industrial sector, and that operational capital and liquidity have an impact on profitability at the same time.
17	Farooq et al. (2024)	The influence of moderate leverage impact of liquidity ratios on the financial performance of sugar sector in Pakistan	The study looks into how the debt ratio, operating cash flow ratio, quick ratio, current ratio, firm age, and moderate leverage affect the financial	Correlation and regression analysis were performed for data analysis.	The relationships between operational cash flow and leverage ratio and debt ratio and leverage were statistically significant when leverage was kept at a reasonable level. These results provided important context for the regression analysis, indicating that the degree of corporate leverage was a key factor in determining how these factors relate to profits per share (EPS).

18	Nguyen et al. (2024)	The impact of liquidity and corporate efficiency on profitability	performance of the sugar industry in Pakistan The primary aim of the research was to examine and ascertain the pattern and degree of how a company's efficiency and liquidity affect its profitability.	To choose the best analytic model, regression models (pooled OLS, FEM, and REM) and the required tests are employed	The results of the study provided evidence in favor of the hypothesis that growth rate, liquidity, and business efficiency all significantly and positively impacted profitability. The results of the study also demonstrated a significant negative association between financial leverage and profitability.
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2.3 Research Gap

It refers to the research void left by earlier investigations. Numerous professionals, scholars, and students have already investigated the profitability and liquidity of various firms. Nevertheless, the results of earlier research are constrained by their large sample sizes, significant variable modifications, and narrow conclusions. Owing to the shortcomings of the earlier research, a new, confirming study was needed.

The objective of this study research differs greatly from that of other investigations. Firstly, the research on profitability and liquidity were conducted at different times. They have researched profitability and liquidity in previous periods. It became imperative to conduct new study on the profitability and liquidity of recent times up to 2022/23. Likewise, prior research did not provide information on the effect of liquidity on manufacturing enterprises' profitability assessments. A fresh investigation was needed to assess the liquidity and profitability of four manufacturing companies in order to fill this gap. Moreover, this study is also different with previous studies in explanatory variables such as current ratio, quick ratio and leverage ratio and dependent variables, profitability (return on assets and return on equity to analyze the impact of liquidity of profitability of Nepalese manufacturing companies. However, to overcome the limitation of previous studies, this study includes different tools of descriptive analysis, correlation analysis, and regression analysis as specific tools which were not included in previous studies. Therefore, this study tries to fulfill research gap to some extent.

CHAPTER III

RESEARCH METHODOLOGY

The comprehensive, systematic, and formal process of conducting a scientific analysis is known as research methodology. This approach involves identifying the problem, formulating a hypothesis, making observations, analyzing data, and drawing a conclusion. The study design that was employed to investigate the goals is referred to as the methodology. One method to properly approach the research topic is to use research techniques. It describes the steps, tools, techniques, and strategies used in the data analysis and report production. It entails thorough investigation, especially in locating new data in any subject to identify the most effective research techniques. The following strategy has been used to achieve the study's objectives.

3.1 Research Design

This study has employed descriptive and causal research designs to deal with issues associated with the impact of liquidity on profitability of manufacturing companies in Nepal. Descriptive research design is used in order to find out the position and status of liquidity and profitability whereas causal research design is used to investigate the relationship and impact of independent variables on dependent variable (profitability) of Nepalese manufacturing companies.

3.2 Population and Sample, and Sampling Design

Currently, there are 118 manufacturing companies operating in Nepal (till July, 2024). They constitute the population. Among of them, only four manufacturing companies are selected namely; Bottlers Nepal (Terai) Limited, Unilever Nepal Limited, Nepal Lube Oil Limited and Himalayan Distillery Limited are selected on the basis of purposive sampling method to analyze the impact of liquidity on profitability of the these companies because these companies are top five in terms of profitability in the present context as well as availability of data. So, the researcher has chosen these companies in this study.

3.3 Nature and Sources of Data and Instrument of Data Collection

The data used for this study are quantitative in nature. The primary sources of this data are secondary and come from prior research, governing body publications, and the annual reports of the manufacturing companies that are the subject of the study.

3.4 Method of Analysis

Financial and statistical tools are the two main tool types that can be utilized to accomplish these goals. As a result, the researcher has heavily utilized both strategies. Because of the characteristics of the statement and the data, the analysis is more perceptive and helpful for accomplishing these aims.

Arithmetic Mean or Average

The arithmetic mean of a set of data is found by dividing the total by the total number of observations. In this case, each element is equally important. Based on the analytical needs, the basic arithmetic mean is used in this inquiry.

$$\text{Mean } (\bar{X}) = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n} = \frac{\sum X}{n}$$

Where,

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n}$$

Where,

$\sum X$ = Sum of given observation

x = variables involved

n = No. of observation

Standard Deviation

An indicator of how unpredictable a random variable is, measured as the average deviation of a set of data from its arithmetic mean and computed as the positive square root of the variance. It has all the required variance features and the advantage of being calculated in the same units as the original data, making it the most meaningful and useful measure of dispersion. The Greek letter sigma (σ) in lowercase is frequently used to represent it.

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (X - \bar{X})^2}{n-1}}$$

Where,

X = variables involved

\bar{X} = mean

n = number of observations

Correlation Coefficient (r)

Correlation is one statistical method for analyzing the connection between two variables. The number r, sometimes referred to as the linear correlation coefficient, indicates the strength and direction of a linear link between two variables. The Pearson product moment correlation coefficient, which bears the name of Karl Pearson, the individual who made the original discovery of the linear correlation coefficient, is another often used moniker for it. When a change in one variable's value seems to be connected to or related to a change in another variable, two or more variables are said to be correlated. Correlation analysis is a suitable statistical method for identifying a link and condensing it into a concise formula when the relationship is

quantitative in nature. Correlation Coefficient (r) =
$$\frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum x^2 - (\sum x)^2} \sqrt{n\sum y^2 - (\sum y)^2}}$$

'r' has a value such that $-1 < r < +1$. For positive and negative linear correlations, respectively, the signs +ve and -ve are utilized.

Positive correlation: "r" is equal to +1 if there is a perfect positive linear correlation between "x" and "y."

Negative correlation: "r" is equal to -1 if there is a perfect negative linear correlation between "x" and "y."

No correlation: "r" is near to 0 in the case of either a weak or nonexistent linear correlation.

t- Statistics

It was made in 1908 by Gosset (pen name Student). After that, R.A. Fisher explains this distribution. The study's assumptions are tested for each of the four sample manufacturings, totaling 32 numbers of observations, using the t-test. To apply the t distribution, the t-values are first computed and compared with the critical values at a set level of significance for a given degree of freedom. At the five percent

significance level, a difference is deemed noteworthy if the computed value of $|t|$ is greater than the table value, specifically $t_{0.05}$. When t -values are less than the critical value of the 't' distribution, on the other hand, the difference is not regarded as significant. The t statistic under H_0 is:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where,

t =calculated value of t

r = correlation of coefficient between the variables.

n = number of sample.

Discussion: If computed " t " is smaller than or equal to the tabulated value of " t " and falls inside the identified zone, the null hypothesis is accepted; if calculated " t " is greater than the tabulated " t ," the null hypothesis is rejected.

Multiple Regression Analysis

The average association between two or more variables defined in terms of the original units of the data is found using a mathematical technique called regression analysis. When there are independent and dependent variables, regression is the study or prediction of one variable's value depending on the supply of another variable. Independent components are sometimes referred to as predictor variables, whereas response variables are dependent variables. Regression analysis uses regression coefficients, represented by the symbol " b ," to show us how much a change of one unit in predictors would change the response variable.

The Model

The researcher is used return on assets and return on equity (dependent variable) as a measure of profitability and three predictors (independent variables) are chosen to be analyzed. Those chosen variables are internal variables such as current ratio (CR), quick ratio (QR) and leverage ratio. Therefore, the following model has been employed for the study of relationship and effect of the study variables.

$$\text{Model 1: } ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 LR_{it} + e_{it} \quad (1)$$

$$\text{Model 2: } ROE_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + \beta_3 LR_{it} + e_{it} \quad (2)$$

Where:

ROA_{it} = Return on assets of manufacturing companies i^{th} for the time period t

ROE_{it} = Return on equity of manufacturing companies i^{th} for the time period t

CR_{it} = Current ratio of manufacturing companies i^{th} for the time period t

QR_{it} = Quick ratio of manufacturing companies i^{th} for the time period t

LR_{it} = Leverage ratio of manufacturing companies i^{th} for the time period t

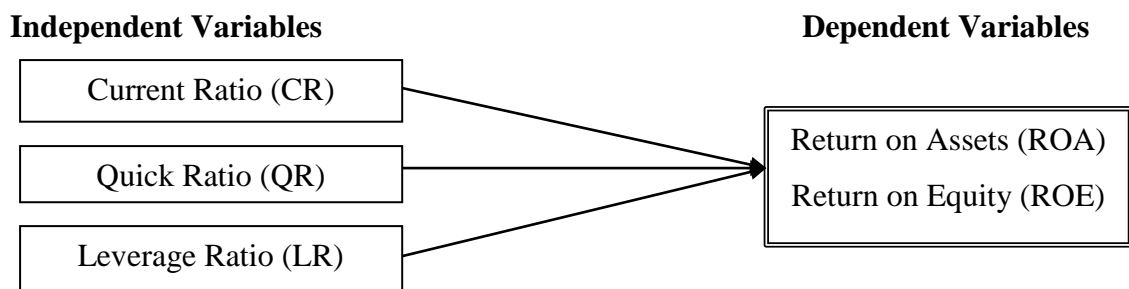
β_0 = The intercept (constant)

$\beta_1, \beta_2, \beta_3$ = The slope which represents the degree with which manufacturing companies profitability changes as the independent variable changes by one unit variable.

e = error component

3.5 Research Framework and Definition of Variables

The researcher formulates the subsequent research framework for the investigation by means of reviews of the relevant theoretical and empirical works.



Source: Asete and Kungu (2018); Akinleye and Ogunleye (2019); Garba (2020); Dadeipo and Afolabi (2020); Mu'avidayana et al. (2022)

Figure 1 Research Framework of the Study

Return on Assets (ROA)

It is a ratio of income to total assets. It evaluates how successfully the management of the company can use its resources to produce a profit. It illustrates how well the business uses its resources to generate income. A higher return on asset suggests that the company is making better use of its resources. Garba (2020); Dadeipo and Afolabi (2020) found that the ratio of net income to total assets measures the return on total assets (ROA) after interest and taxes.

Return on Equity (ROE)

Return on equity is the other metric used to evaluate profitability success. Ratio Return on equity is the other indicator used to evaluate profitability success. The return on equity (ROE) ratio is the most commonly utilized internal performance metric of shareholder value. Return on equity is the sum paid to shareholders on their equity. Akinleye and Ogunleye (2019); Mu'avidayana et al. (2022) stated return on equity (ROE) is a metric used to assess a company's profitability that indicates how much profit it makes using the capital that shareholders have invested.

Current Ratio

The ratio of current assets to current liabilities indicates the company's capacity to settle short-term obligations, such as payable accounts and short-term loans. This ratio's size indicates the company's high liquidity and consequently its increased ability to pay short-term obligations. Garba (2020) concluded that current ratio had significant negative impact on profitability. Likewise, Dadebo and Afolabi (2020); Hameed et al. (2021); found that current ratio had negative effect on profitability of the manufacturing companies.

Quick Ratio

Only the most liquid current assets to current liabilities are included in this ratio. An increase in this ratio's value indicates that the firm has strong liquidity. This ratio does not include inventories or prepayments for costs that are not easily converted into cash. Asete and Kungu (2018) concluded that quick ratio had significant positive impact on profitability of manufacturing companies. Garba (2020); Dadebo and Afolabi (2020) found quick ratio has significant positive impact on profitability of manufacturing companies.

Leverage Ratio

The leverage ratio is a metric used to assess a company's solvency. The link between debt and equity, or assets and debt, is expressed as a ratio. The amount of debt utilized to fund assets can be ascertained using this ratio. But in this study, the leverage ratio is calculated by dividing the entire equity by the debt. Ayoush et al. (2021) concluded that leverage ratio had significant negative effect on profitability. Fikri and Arifin

(2023) and Mismiwati et al. (2023) found, leverage ratio had negative effect on profitability of sample manufacturing companies. However, Garba (2020) found that leverage ratio had positive effect on profitability of the manufacturing companies.

CHAPTER IV

RESULTS AND DISCUSSION

As mentioned previously, the main objective of this research is to examine how liquidity affects the profitability of Nepalese manufacturing companies. As a result, the findings and their analysis are covered in this chapter, which is split into three pieces. In the first section, the variables' structure and descriptive and correlation analyses were reported; in the second, the linear regression model's assumptions were met; and in the third, the regression findings were given. Data analysis techniques were used to determine the ratio of the chosen dependent and independent variables as well as the ratio scale measurement for further statistical analysis. With the aid of SPSS version 26, the collected data was statistically analyzed.

4.1 Results

Collected for all variables have been presented in different tables, descriptive statistic, correlation analysis and regression analysis are also presented in this section.

4.1.1 Analysis of Descriptive Statistics

Table 2 shows the descriptive statistics of the study's independent variables (current ratio, quick ratio, and leverage ratio) and dependent variables (profitability, ROA and ROE). The mean, SD, scale, minimum and maximum values of the variables, and N, which stands for the number of observations, are the descriptive statistics utilized in this study.

Table 2

Descriptive Statistics of Variable of Manufacturing Companies

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Independent Variables:					
CR	32	.41	10.82	2.0563	2.25522
QR	32	.13	9.23	1.5138	2.08459
LEV	32	.09	3.36	1.2800	.89289
Dependent Variables:					
ROA	32	.07	45.08	16.7791	12.92436
ROE	32	.25	59.07	30.3153	16.46775

Source: Appendix –II

Table 2 reveals a summary of the descriptive statistics of two response variables: ROA and ROE; three predictor variables like current ratio, quick ratio and leverage ratio are used in the study. At first, the current ratio (CR) has a mean of 2.0563 and a standard deviation of 2.25522, ranging from 0.41 to 10.82 percent. The average fast ratio during the length of the research is 1.5138 percent, with a standard deviation of 2.08459. Positive 0.13 percent was the lowest ratio and 9.23 percent the biggest. The leverage ratio is another independent variable that ranges from 0.09 percent to 3.36 percent, with an average of 1.2800 percent and a standard deviation of 0.89289.

The ROA summary indicates that throughout the research period, the average return on assets was 16.7791 percent with a standard deviation of 12.92436 percent, with the highest return on assets being 45.08 percent and the lowest being 0.07 percent. With a mean of 30.3153 percent and a standard deviation of 16.46775 percent, the range of ROE is as low as 0.25 percent and as high as 59.07 percent.

4.1.2 Correlation Analysis

Correlation analysis is one statistical technique for looking at the relationship between seven variables. Regardless of whether there is a positive or negative relationship between five variables, correlation analysis employs a range of techniques to investigate and measure the strength of a relationship between two variables. The relationship between return on equity, return on assets, quick ratio, current ratio, and leverage ratio is ascertained by correlation analysis. It also establishes the significance of the association.

Table 3

Pearson Correlation Coefficients of Study Variables

	CR	QR	LEV	ROA	ROE
CR	1				
QR	.986**	1			
LEV	-.571**	-.539**	1		
ROA	.441*	.449**	-.735**	1	
ROE	.161	.180	-.432*	.888**	1

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

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

Source: Appendix-III

Table 3 reveals the correlation matrix of response and predictor variables. Correlation result shows current ratio has significant positive correlation with ROA and insignificant positive relationship with ROE. Similarly, quick ratio has significant positive correlation with ROA and insignificant positive association with ROE. Moreover, correlation of leverage ratio has significant negative relationship with profitability (ROA and ROE) of manufacturing companies in Nepal.

4.1.3 Regression Analysis

Like standard regression analysis, which utilizes one independent variable to estimate the values of dependent variables, coefficient analysis uses two or more independent variables. Multiple regression analysis makes it easier to see how a variable moves in relation to other factors. The model's theoretical foundation is that the ROA and ROE, which are subsequently used to evaluate the relationship between liquidity and profitability, are influenced by the current ratio, quick ratio, and leverage ratio. The theoretical claims presented above can be formulated as follows:

4.1.3.1 Regression Analysis between Independent Variables and ROA

Return on assets is the dependent variable and independent variables are current ratio, quick ratio and leverage ratio to analyze the effect of liquidity on profitability of the manufacturing companies.

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761 ^a	.579	.534	8.81978

a. Predictors: (Constant), LEV, QR, CR

b. Dependent Variable: ROA

Source: Appendix-IV

The R square is 0.579. The implication therefore is that, 57.90 percent of the variation in the dependent variable (ROA) is explained by the independent variables (current ratio, quick ratio and leverage ratio). The study R value of 0.761 indicates that there is a strong correlation between the variables being studied. This implies that the ROA was significantly impacted by the independent variables. The standard error of estimate has a perfect correlation with regression analysis.

Table 5

Analysis of Variance (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3000.138	3	1000.046	12.856	.000 ^b
	Residual	2178.076	28	77.788		
	Total	5178.214	31			

a. Dependent Variable: ROA

b. Predictors: (Constant), LEV, QR, CR

Source: Appendix-IV

ANOVA The overall fitness of the regression model for the data is shown in Table 5. With a p-value of 0.000, or less than 0.05, it was shown that liquidity significantly predicts profitability (ROA).

Table 6

Regression Coefficient of Independent Variables with ROA

Variables	Coefficients	t-statistics	Sig.-value
(Constant)	33.549	6.775	.000
CR	-6.889	-1.543	.134
QR	7.596	1.615	.118
LEV	-11.018	-5.011	.000

Source: Appendix-IV

Table 6 presents the regression coefficient of independent variables current ratio, quick ratio and leverage ratio of the manufacturing companies and the intercept value of dependent variable ROA. The current ratio has a coefficient of regression (β) of -6.889, according to the findings of the multiple regression analysis. It demonstrates that a 1% increase in CR will cause a -6.889 percent drop in ROA. Furthermore, at the five percent significance level, the current ratios' (CR) sig. value, or p value, of 0.134 shows that it is statistically insignificant. An insignificant effect of current ratio means a current ratio that is too high is also not good, because it indicates a large number of idle funds which in turn can reduce the company's ROA. Hence, there is insignificant negative effect of current ratio on ROA of the manufacturing companies. The coefficient of regression (β) for quick ratio (QR) is 7.596. According to the statistics, a one percent increase in quick ratio would cause a 7.596 percent increase in ROA.

Furthermore, at the five percent significance level, the quick ratio (QR) p value of 0.118 indicates statistical insignificance. An insignificant effect on ROA means

Nepalese manufacturing companies doesn't have enough scope to enhance their profitability by handling their liquidity in more efficient ways. Especially, the inventory turnover could not handle efficiently and resulting could not produce a significant positive impact on profitability of the companies. Hence, there is insignificant positive effect of quick ratio on ROA. Moreover, the coefficient of regression (β) for the leverage ratio (LR) is -11.018. The data indicates that a one percent growth in leverage ratio would result in a -11.018 percent decline in ROA. Additionally, the p value of leverage ratio is 0.000, demonstrating statistical significance at the five percent significance level. Hence, leverage ratio has significant negative impact on ROA of the manufacturing companies.

4.1.3.2 Regression Analysis between Independent Variables and ROE

Return on equity is the dependent variable and independent variables are current ratio, quick ratio and leverage ratio to analyze the effect of liquidity on profitability of the manufacturing companies.

Table 7

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.738 ^a	.544	.513	15.06903

a. Predictors: (Constant), LEV, QR, CR

b. Dependent Variable: ROE

Source: Appendix-V

The R square is 0.544. The implication therefore is that, 54.40 percent of the variation in the dependent variable (ROE) is explained by the independent variables (current ratio, quick ratio and leverage ratio). The study variables have a strong correlation with one another, as indicated by the R statistic of 0.738. This implies that the ROE was significantly impacted by the independent factors. The standard error of estimate has a perfect correlation with regression analysis.

Table 8

Analysis of Variance (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2048.672	3	682.891	3.007	.047 ^b
	Residual	6358.115	28	227.076		
	Total	8406.787	31			

a. Dependent Variable: ROE

b. Predictors: (Constant), LEV, QR, CR

Source: Appendix-V

The overall fitness of the regression model for the data is shown in the ANOVA table. The p-value of 0.047, which is smaller than .05, suggests that independent variables significantly predict ROE.

Table 9

Regression Coefficient of Independent Variables with ROE

Variables	Coefficients	t-statistics	Sig-value
(Constant)	49.517	5.853	.000
CR	-10.663	-1.398	.173
QR	10.445	1.300	.204
LEV	-10.224	-2.721	.011

Source: Appendix-V

Table 9 presents the regression coefficient of independent variables current ratio, quick ratio and leverage ratio of the manufacturing companies and the intercept value of dependent variable ROE. The results of the multiple regression analysis showed that the current ratio had a coefficient of regression (β) of -10.663. It shows that a one percent rise in CR would result in a -10.663 percent decrease in ROE. Additionally, the current ratios' (CR) sig. value, or p value, of 0.173 indicates that it is statistically insignificant at the five percent significance level. An insignificant effect of current ratio means a current ratio that is too high is also not good, because it indicates a large number of idle funds which in turn can reduce the company's ROE. Hence, there is insignificant negative effect of current ratio on ROE of the manufacturing companies. The coefficient of regression (β) for quick ratio (QR) is 10.445. According to the statistics, a one percent increase in quick ratio would cause a 10.445 percent increase in ROE. Furthermore, at the five percent significance level, the quick ratio (QR) p value of 0.204 indicates statistical insignificance. An insignificant effect on ROE means Nepalese manufacturing companies doesn't have enough scope to enhance

their profitability by handling their liquidity in more efficient ways. Especially, the inventory turnover could not handle efficiently and resulting could not produce a significant positive impact on profitability of the companies. Hence, there is insignificant positive effect of quick ratio on ROE. Moreover, the coefficient of regression (β) for the leverage ratio (LR) is -10.224. The data indicates that a one percent growth in leverage ratio would result in a -10.224 percent decline in ROE. Additionally, the p value of leverage ratio is 0.011, demonstrating statistical significance at the five percent significance level. Hence, leverage ratio has significant negative impact on ROE of the manufacturing companies.

4.2 Discussion

The main purpose of this study is to examine the impact of liquidity on profitability of manufacturing companies in Nepal. Liquidity has a direct impact on assets and returns on equity, the two main parameters for measuring profitability of the manufacturing companies. The correlation analysis shows that current ratio (CR) has significant positive association with profitability ROA and insignificant positive relationship with ROE. This finding is similar with the findings of Asete and Kungu (2018) which observed that quick ratio have positive relationship with profitability (ROA). This is also consistent with the previous study finding of Garba (2020); Hameed et al. (2021); Nguyen et al. (2024). However, it contradicts with the findings of Dadepo and Afolabi (2020) found that current ratio had negative relationship with profitability of manufacturing companies.

Similarly, quick ratio has significant positive correlation with ROA and also insignificant positive relationship with ROE of manufacturing companies. This study is similar with the previous study of Asete and Kungu (2018) which observed that quick ratio have positive relationship with profitability. This is also consistent with the finding of Garba (2020); Hameed et al. (2021); Virginus et al. (2021); Nguyen et al. (2024) but opposite to the finding of Dadepo and Afolabi (2020). Moreover, there is significant negative relationship between leverage ratio and ROA and also significant negative relationship with ROE. This is consistent with the findings of Garba (2020) found that there was negative relationship of leverage with return on assets. This is also consistent with the finding of Nguyen et al. (2024).

The multiple regression analysis found that current ratio (CR) has insignificant negative impact on ROA. This result is similar to the result of Garba (2020) concluded that current ratio had negative impact on ROA. This finding is also similar with the finding of Dadebo and Afolabi (2020); Hameed et al. (2021); Fikri and Arifin (2023) but it is not consistent with the findings of Asete and Kungu (2018); Zaitoun and Alqudah (2020) found that current ratio had positive effect on ROA of the sample companies. At the same time, quick ratio has insignificant positive impact on ROA. This result is similar to the result of Asete and Kungu (2018) concluded that quick ratio had positive impact on ROA. This is also consistent with the finding of Garba (2020); Dadebo and Afolabi (2020); Zaitoun and Alqudah (2020); Hameed et al. (2021). Further, leverage ratio has significant negative effect on ROA of sample manufacturing companies. This finding is similar with the finding of Ayoush et al. (2021) concluded that leverage ratio had significant negative effect on ROA. This is also consistent with the finding of Fikri and Arifin (2023); Mismiwati et al. (2023). However, it contradicts with the finding of Garba (2020) found that leverage ratio had positive effect on ROA of the companies.

As regards regression on ROE, current ratio (CR) has insignificant negative impact on ROE at 5 percent level of significance. This result is consistent with the results identified by Ayoush et al. (2021) but opposite to the findings of Akinleye and Ogunleye (2019); Mu'avidayana et al. (2022); Nguyen et al. (2024) concluded that current ratio had positive impact on profitability. At the same time quick ratio has insignificant positive impact on ROE at 5 percent level of significance. This result is consistent with the results identified by Mu'avidayana et al. (2022) mentioned that quick ratio had positive effect on ROE. This is also consistent with the finding of Lawrence and Moses (2021) but it is not consistent with the findings of Akinleye and Ogunleye (2019); Ayoush et al. (2021) concluded that quick ratio had negative impact on profitability. Finally, leverage ratio has significant negative impact on ROE at 5 percent level which is consistent with the findings of prior empirical studies of Ayoush et al. (2021) concluded that leverage ratio had significant negative impact on ROE. This is also similar with the prior study of Nguyen et al. (2024).

CHAPTER V

SUMMARY AND CONCLUSION

5.1 Summary

Many companies prioritize increasing profits over the necessity of good and efficient liquid asset management. The claim that liquidity and profitability have competing objectives supports this. Therefore, it will be challenging to pursue both at the same time; this is consistent with the notion of the trade-off between profitability and liquidity. As a result, a company's day-to-day operations need to keep liquidity and profitability in balance. This is due to the fact that excess and inadequate liquidity directly affect profitability. For example, when liquidity assets are more than what is required, inefficient use of resources occurs, which can have a detrimental influence on profitability. However, a lack of liquidity assets could cause the businesses to fail, which would reduce their profits. A manufacturing company's liquidity is defined as its capacity to pay short-term debts, bills owed, and outstanding expenses. It determines the company's ability to fulfill all of its fully grown responsibilities. indicating that managing liquidity is critical to a company's survival.

The main objective of this study is to evaluate the impact of liquidity and profitability of manufacturing companies in Nepal. Other specific objectives are to examine the liquidity and profitability position of manufacturing companies in Nepal, to analyze the relationship between liquidity and profitability of manufacturing companies in Nepal and to analyze the impact of liquidity on profitability of manufacturing companies in Nepal. This study has employed descriptive and causal research designs to deal with issues associated with the impact of liquidity on profitability of manufacturing companies in Nepal. Descriptive research design is used in order to find out the pattern and status of liquidity and profitability whereas causal research design is used to investigate the relationship and impact of independent variables on dependent variable (profitability) of Nepalese manufacturing companies. Currently, there are 118 manufacturing companies operating in Nepal (till July, 2024). They constitute the population. Among of them, only four manufacturing companies are selected namely; Bottlers Nepal (Terai) Limited, Unilever Nepal Limited, Nepal Lube Oil Limited and Himalayan Distillery Limited are selected on the basis of purposive

sampling method to analyze the impact of liquidity on profitability of these companies because these companies are top five in terms of profitability in the present context as well as availability of data. To conduct this study, secondary data are taken from annual reports of related office and their websites. In order to analyze the liquidity variables and its impact on profitability, computed ratios for four sample companies for eight consecutive years .i.e. from 2015/16 to 2022/23 were collected from an audited financial report of sample companies were collected for the same years. The study used descriptive statistics, correlation and multiple regression analysis to analyze the data with the help of IBM SPSS software and Excel.

This study shows that there is strong liquidity position in terms of current ratio and quick ratio and also strong profitability position of sample manufacturing companies in term of ROA and ROE means sample companies earns in relative to its total resources. The correlation analysis shows that current ratio has significant positive correlation with ROA and insignificant positive relationship with ROE. Similarly, quick ratio has significant positive correlation with ROA and insignificant positive association with ROE. Moreover, correlation of leverage ratio has significant negative relationship with profitability (ROA and ROE) of manufacturing companies in Nepal. The study also reveals that current ratio has insignificant negative impact on profitability (ROA and ROE) of the manufacturing companies. At the same time, quick ratio has no significant positive impact on profitability (ROA and ROE) of manufacturing companies in Nepal whereas leverage ratio has significant negative impact on profitability (ROA and ROE) of the companies. Therefore, this study concluded that there is insignificant effect of liquidity on profitability of manufacturing companies in Nepal.

5.2 Conclusion

This study concluded that sample manufacturing companies have strong liquidity position in form of current ratio and quick ratio. The profitability ratios (ROA and ROE) are main indicators to analyzing the profitability of sample companies. In this study, sample manufacturing companies have efficiently utilized its assets through mobilizing its resources due to the high ratio.

The correlation analysis concluded that there is strong positive association between current ratio and ROA and current ratio and ROE of manufacturing companies. Likewise, quick ratio has significant positive correlation with ROA and it has insignificant positive association with ROE of the sample companies. Finally, leverage ratio has significant negative relationship with profitability (ROA and ROE) of manufacturing companies in Nepal. So, this study concluded that liquidity has positive relationship with profitability of manufacturing companies in Nepal.

The multiple regression concluded that there is insignificant negative impact of current ratio on profitability (ROA and ROE) of the manufacturing companies. Then quick ratio has insignificant positive impact on profitability (ROA and ROE) of manufacturing companies in Nepal. However, leverage ratio has significant negative impact on profitability (ROA and ROE) of the companies. Hence, this study concluded that the effect of liquidity on profitability is insignificant of manufacturing companies in Nepal.

5.3 Implications

Based on the findings of the research the following implications are presented:

- This study found that cash to current ratio and quick ratio have no significant impact on profitability (ROA and ROE) whereas leverage ratio has significant impact on profitability (ROA and ROE) of manufacturing companies in Nepal. Thus, this findings and information gives signal to the management of the banks and policy makers or regulators to control and optimize the liquidity to make better profitability.
- After examining the several aspects of manufacturing liquidity and how it affects enterprises' profitability, the research comes to the conclusion that effective management of liquidity will help both individuals and businesses as a whole as well as individuals and organizations who are bankrupt. Consequently, this enhances the wellbeing of the financial sector inside the economy and in the broader community.
- Some of the most recent information, data, and concerns about the effect of liquidity on profitability may be found in this study. As a result, the

management of companies, shareholders, and future scholars and students will find value in this work.

- The research's conclusions can be useful to investors and future researchers. Future researchers will find this reference guide to be a useful resource.

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