

**“A COMPREHENSIVE ANALYSIS OF CAPITAL STRUCTURE OF
SELECTED IT INDUSTRIES OF INDIA”**

A THESIS

SUBMITTED BY

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MASTER OF COMMERCE

UNDER THE GUIDANCE OF

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DECLARATION BY THE
CANDIDATE

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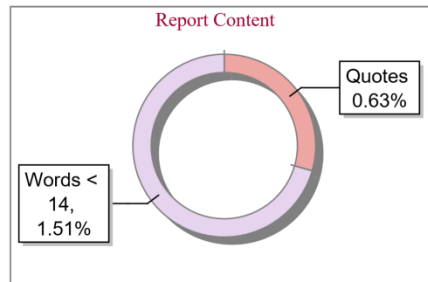
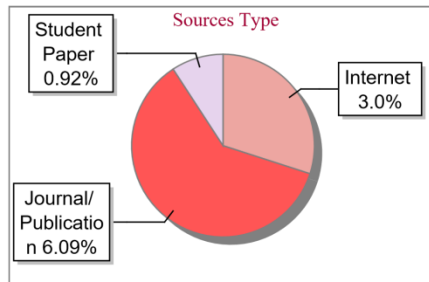
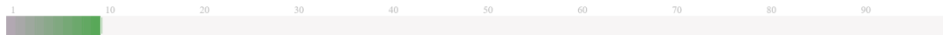
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PREFACE










Understanding the intricacies of capital structure within the dynamic landscape of India's Information Technology (IT) industry is crucial for both academics and practitioners alike. As the global IT sector continues to evolve, India has emerged as a powerhouse, with its companies playing pivotal roles in shaping technological innovation and digital transformation worldwide. Against this backdrop, this comprehensive analysis delves into the capital structures of selected IT industries in India, offering insights into the financial frameworks that underpin their operations.

In this examination, we explore how IT firms in India navigate the complexities of capital structure to sustain growth, optimize financial performance, and mitigate risk. By focusing on a select group of companies within the Indian IT sector, we aim to provide a nuanced understanding of the factors influencing their capital structure decisions, including financing preferences, debt-equity dynamics, and market conditions.

Moreover, this analysis seeks to shed light on the unique challenges and opportunities faced by IT enterprises in India, considering the interplay of domestic and global market forces, regulatory frameworks, and industry trends. Through empirical research and theoretical frameworks, we endeavour to offer valuable insights for investors, policymakers, and corporate strategists seeking to navigate the evolving landscape of the Indian IT industry.

It is our hope that this study will contribute to the existing body of knowledge on capital structure theory and practice, while also offering practical implications for stakeholders invested in the sustainable growth and development of India's IT sector. As we embark on this analytical journey, we invite readers to delve deeper into the complexities of capital structure within the vibrant ecosystem of India's IT industry.

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CHAPTER 1

INTRODUCTION



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1.1 INTRODUCTION

Gerestenberg believes that “the capital structure of a company refers to the composition or its capital composition includes all long term sources, namely loans, bonds, stocks and reserves” therefore, the capital structure consists of- consists of debt and equity securities and refers to permanent financing of the company.

Some authors use capital structure and financial structure interchangeably, however, both different concepts. Financial structure refers to the way a company’s total assets are allocated. In other words, financial structure refers to the entire liabilities portion of the balance sheet. However, the capital structure represents only long term funding sources and excludes all short term funding sources. Therefore, the financial structure is a broader structure of which the capital structure is only one part.

This cycle looks the same today as it did in early 1975, when the balance sheet things started to improve and companies with strong capital structures started acquiring other companies. While some companies are increasing public market financing, others are taking advantages of bond proceeds are used to repay short- term bank debt, thereby strengthening its balance sheet and helping restore bank liquidity. The long debate begins when deciding what type of capital structure should be adopted critical to the organization. Although some people believe that capital structure is not important in the economy others argue that when evaluating a company’s securities or the risks of investing in those securities, capital structure significantly affects value and risk. The optimal capital structure continues to evolve successful business leaders must constantly consider six factors:

Companies and their management, its balance sheet and helping restore bank liquidity. The long debate begins when deciding what type of capital structure should be adopted critical to the organization. Although some people believe that capital structure is not important in the economy others argue that when evaluating a company’s securities or the risks of investing in this securities, capital structure significantly affects value and risk. The optimal capital structure continues to evolve successful business leaders must constantly consider six factors: companies and their management, industry dynamics capital market conditions, the economy, government regulation and social trends. When these six factors indicate increased business risk, for same businesses, even one rupee of debt may be too much.

Many companies have struggled over the past four decades with the wrong capital structure. During credit expansion cycles, companies often fail to build sufficient liquidity to cope with the inevitable crunch. Particularly vulnerable are businesses unpredictable revenue streams can ultimately lead to excessive debt during business slowdowns. The decision to increase or decrease leverage depends on market conditions and investor wishes acceptance of debt. These were general preference for debt from the late 1970s to the mid-1980s financing. Then, in the late 1980s stock market values raised above replacement cost balance sheet assets such as plant equipment appeared for the first time in 15 years. That's a sign of deleveraging.

Over the past decade, many businesses, financial institutions, and governments have once again begun excessive leverage. Without share buybacks, many of these companies have very little debt, and there will be greater flexibility during periods of heightened credit constraints. In other words, their current financial problems are of their own making. Rather than entering a recession. Their capitalism wrong due to ample liquidity, longer debt maturities and less debt structures at the time. CFOs always ask themselves two related questions when managing their balance sheets: should they give excess cash back to shareholders or invest it? Should new funds be funded? By adding debt or leveraging equity for the project? In fact, achieving the right capital structure.

The composition of debt and equity used by a company to finance its operations and strategies investment has long puzzled academics and practitioners alike. Some focus on theory debt has tax advantages because interest payments are generally tax deductible. Recently, senior executives of public companies wonder whether they should use debt, as some private equity firms do increase their returns. At the same time, many companies hold large amounts of cash and think about how to deal with it.

Therefore the proportions of various sources of short term funding may not be fixed. Businesses must adopt a flexible approach. Often clearer policies are in place. The composition of long term funds is called capital structure. More important aspects policy is determined by the debt to equity ratio and dividends.

Since it offers a productive and well-organized mechanism for the expansion of the economy's industrial and non-industrial sectors, the corporate sector is crucial to the growth and development of the Indian economy. The coordinated efforts of several businesses to achieve the goal of industrialization and expanded production clearly

demonstrate the corporate sector's contribution to the balanced growth of diverse areas of organized economic activity.

Human demands are expanding in tandem with population growth. In order to meet all of these demands, the business sector must produce and supply the goods and services necessary to ensure the nation's sustainable economic growth. Apart from its primary objective of maximizing profits, the corporate sector is crucial for capital formation, employment generation, infrastructure development, establishing a robust industry foundation, preventing the concentration of wealth and income, eliminating regional disparities, generating potential for exports, and ultimately contributing to the nation's overall economic growth and raising the standard of living for all.

There are two primary segments of the Indian business sector: privately held enterprises and government-owned companies. Government enterprises are primarily concentrated in the heavy, capital-intensive, and basic industries, whereas the private sector dominates those that directly serve consumer markets. Both domains have experienced rapid growth in terms of both population and capital, particularly in the wake of the economic reforms. However, the number of illnesses and business closures has also regrettably increased. A lot of businesses are about to close.

One of the primary causes is financial, among other things. In order to maintain the company's financial stability, management must properly plan and carry out financial matters and secure the necessary money from the appropriate source and at the appropriate time. A well-balanced capital structure maximizes the firm's worth while minimizing its overall cost of capital by striking a balance between risk and returns. Therefore, it is imperative to examine the capital structure pattern of the organization and its actual correlation with the financial and operational efficacy of the enterprise. The goal of the current study is to update our understanding of this facet.

Any organization's ability to expand and survive depends heavily on its ability to make money. For the business to be financially momentum-driven and sustainably driven, a strong financial management system is necessary. The management of joint stock corporations' financial affairs falls under the purview of corporate financial management. This involves three primary decisions: financing, investing, and dividend decisions.

It is concerned with arranging the various funding sources in a suitable way, that is, in relative quantity and proportion, following a thorough analysis of each one's cost,

profitability, degree of control dilution, risk, and managerial freedom constraints. It is well recognized that reducing a company's cost of capital by carefully balancing its debt and equity mix can increase a company's value.

Financial management ought to, in theory; design the capital structure that best fits their business. Even if a company's capital structure decision is influenced by a variety of circumstances, decision makers' judgment and ideology have a significant role. This implies that similar types of businesses may have diverse capital structure patterns if decision-makers have different philosophies and opinions about the significance of various aspects. Most likely, no one theoretical model can fully account for every element influencing the choice of capital structure. Decisions must be made under imperfect knowledge and risk because all of these aspects are extremely complicated and confused by psychological and qualitative factors that don't always follow a precise theory.

Over the past few decades, India's Information Technology (IT) sector has experienced a spectacular change that has made it a global powerhouse in the digital landscape. India's IT industry has experienced tremendous growth, technological improvements, and a major contribution to the economic prosperity of the nation. This article examines the development, significant turning points, and present state of the Indian IT sector. India's IT sector has its origins in the government's efforts to provide a foundation for computer education and research in the 1960s and 1970s. The inception of the Indian Institutes of Technology (IITs) was instrumental in cultivating a reservoir of proficient experts. However, with the introduction of liberalization measures by the Indian government, the industry started to take shape in the 1980s.

The liberalization of the economy in the 1990s marked a turning point for the Indian IT sector. Due to the government's resolve to liberalize the economy, foreign investments surged and multinational corporations (MNCs) were able to establish operations in India. Businesses like as Microsoft and IBM made their mark, bringing with them employment possibilities and technological know-how. The rise of indigenous firms like Infosys, Wipro, and Tata Consultancy Services (TCS) coined the phrase "India's domination in software services" at the same time. These businesses relied on India's large reservoir of highly qualified engineers and programmers to deliver high-quality, reasonably priced solutions to clients throughout the world.

1.2 COMPONENTS OF CAPITAL STRUCTURE

A joint stock firm needs a substantial amount of capital to operate on a daily basis, grow and expand the business, and purchase fixed assets. Thus, it is reasonable to say that finance is the lifeblood of any company. It's not always possible for the company to meet all of its financial needs with the original money it supplied. Therefore, the financial management needs to be informed of the many sources from which the necessary cash might be obtained. Funds are required by the company for both its working and fixed capital needs. To purchase permanent assets such as buildings and land, furnishings and fittings, and machinery and plants, fixed capital is needed.

Therefore, the financial management needs to be informed of the many sources from which the necessary cash might be obtained. Funds are required by the company for both its working and fixed capital needs. To purchase permanent assets such as buildings and land, furnishings and fittings, and machinery and plants, fixed capital is needed. The money needed for fixed assets stays in the company for a very long time. Whether a company is big or small doesn't matter; it still requires enough money for daily operations (working capital). It is intended to cover current costs such as rent, taxes, salaries, and wages as well as current assets like material inventories. Furthermore, more money is required to expand the company, satisfy existing obligations, keep large inventory throughout the holiday season, upgrade to the newest production technology, and move to a new location. As a result, it is necessary to assess the different funding sources.

A business can raise money in a number of ways. Every source has distinct qualities that need to be thoroughly examined in order to determine which source is the greatest one. There isn't a single best source of funding that works for every group all the time. The source to be used may be chosen based on the goal, circumstances, expense, and risk involved. For example, a company may choose to raise long-term finances, which can be raised as debt (loan funds) or equity (owned funds) in order to satisfy fixed capital requirements.

Equity is defined as money contributed by the company's shareholders in the form of preference share capital or equity, which is used to fund the firm for a longer period of time and is typically not repaid during the course of the enterprise. This kind of money serves as the foundation for owners' acquisition of their managerial control rights. The two main ways to obtain the owner's funds are through the issuance of preference shares

and equity shares. Conversely, "debt" is the term used to describe the money obtained by borrowing or loans, which can come in the form of trade credit, debentures, public deposits, commercial paper, and loans from commercial banks or other financial organizations.

These sources supply money on certain terms and circumstances for a predetermined amount of time, and they must be paid back when that time comes to an end. On these funds, there is a fixed interest rate. The requirement to pay interest even in the event of low profits or a loss can occasionally be quite burdensome for the company. It also offers some benefits at the same time. Because debt financing is tax deductible, has a comparatively low interest rate, and is less expensive to issue, it typically has the lowest cost of capital. Trading on equity, also referred to as financial leverage, is the use of debt in the capital structure.

Share capital is the amount of money raised via the issuance of shares. As mentioned previously, a firm typically issues two kinds of shares: preference shares and equity shares. The most common way for a business to raise long-term capital is through the issuance of equity shares, which signify the ownership of the business. The money raised through the issuance of these shares is referred to as owner's equity or ownership capital. For a corporation to be formed, equity share capital is necessary. The dividend paid by the company to equity owners is determined by its earnings rather than being fixed.

Equity shareholders are also known as "residual owners" since they are the recipients of what remains after all other claims have been resolved. Ownership entails risk as well as reward for equity stockholders. However, their liability is capped at what they contributed to the company's capital. These stockholders are entitled to vote and take part in the company's management. Since equity capital is only to be reimbursed at the moment of the company's demise, it acts as a perpetual source of funding. In the event that a firm must be liquidated, creditors will have a buffer thanks to the equity shareholders' lower ranking on the list of claims.

A company's assets are free to be mortgaged for borrowings if necessary because equity capital can be raised without placing any charge on them. The price of stock shares is thought to be higher than the price of other sources. Additionally, the revenues and controlling power of current equity shareholders are diminished by the issuance of new equity shares.

The corporation may also choose to issue preference share capital in order to raise money. In exchange, the holder will get a predetermined dividend, which will be paid before dividends on regular shares. As a result, in the event of a corporate liquidation, preference shareholders will get dividend payments and capital repayments before equity shareholders. The features of both equity share capital and debenture capital are present in preference shares. Given that they have fixed rates of return, it is similar to debentures.

Moreover, these also bear some resemblance to equity shares because the dividend is paid solely at the directors' discretion and only from profit left over after interest and taxes. A business may issue several kinds of preference shares with diverse characteristics. Since preference shareholders are not entitled to vote, the issuance of preference shares has no effect on the equity owners' ability to control management. Preference shares often provide a greater dividend than debentures' interest rate. Preference shares come in several forms, such as cumulative and non-cumulative, participating and non-participating, convertible and non-convertible.

Typically, a business does not pay dividends to its shareholders from its whole earnings. It is possible to keep some of the net earnings in the company to cover unforeseen expenses or other financial commitments in the future. This is known as "plugging back of profits," or retained earnings, and it serves as a source of internal funding. The profit that can be reinvested is determined by a number of variables, including net profits, the dividend policy, and the organization's age. It is a steady stream of funding that an organization can access. There is more operational independence and flexibility because the money is generated internally. However, since stockholders would receive smaller dividends, excessive plowing back could make them unhappy. Many companies have not realized the opportunity cost connected with this money. This could result in a less-than-ideal use of the funds.

By issuing debentures, a firm can raise capital to satisfy its medium- and long-term financial needs. The debenture serves as an acknowledgement that the business has borrowed a specific sum of money, which it plans to pay back later. Therefore, holders of debentures are regarded as creditors of the business. The holders of debentures are required to receive set interest payments from the corporation on a regular basis. A business may provide debentures with a variety of attributes. In recent years, zero-coupon

bonds sometimes referred to as zero-interest debentures or ZIDs, have gained popularity as they do not have an explicit interest rate.

Businesses can obtain short-term funding from a number of methods, including leasing, factoring, trade credit, and the issuance of commercial papers. In India, commercial paper began to become available as a short-term financing option in the early 1990s. This is an unsecured promissory note that a respectable organization has issued to cover a range of short-term (three months to one year) financial demands. Commercial paper often reflects current market interest rates and is issued at a discount to face value. Generally speaking, commercial paper raises a sizable sum.

Commercial paper can only be issued by institutions with excellent credit ratings because the debt is unsecured. Fairly rated and newly established businesses cannot raise money using this strategy. The RBI regulates its issue. Purchasing materials on credit is encouraged by a trade credit. Different industries have different trade credit terms, which are detailed in the invoice. Trade credit is typically a major source of funding for small and startup businesses because obtaining financing from other sources can be challenging

A lease is a legal arrangement in which the owner of one asset, the lesser, offers the lessor's tenant, the lessee, the right to use the asset or assets for a predetermined amount of time in exchange for a periodic payment. In recent years, factoring has become more popular as a short-term funding source. It is a financial service in which a single entity, known as the factor, handles all credit management, collects debt from the buyer, and guards the company against any losses due to bad debt.

Apart from the aforementioned sources, there exist alternative channels via which the organization might obtain funding on a worldwide scale. Due to economic liberalization and globalization, Indian businesses are now also able to raise capital from other markets. Foreign currency loans from commercial banks, financial support from international organizations and development banks, and the issuance of financial instruments (GDRs, ADRs, and FCCBs) on global capital markets are a few examples of international funding sources.

1.3 FEATURES OF CAPITAL STRUCTURE

It is the responsibility of the financial manager to design the most appropriate capital structure good for the company. Capital structure should be planned carefully, taking in to account. The interests of shareholders since they are the ultimate owners of the company. This planning and designing an optimal capital structure is not an easy task. However, it must be when designing a capital structure, it is considered that a sound or appropriate capital structure should have had the following characteristics:

Profitability: the capital structure of the company should be what is most beneficial to the company shareholder. It should maximize earnings per share while minimizing costs financing.

Solvency: Excessive use of debt as a proportion of the total capital structure threatens the company's solvency. The company's solvency. Therefore debt capital should be used to the extent that: financial risks are within control.

Flexibility: The capital structure should be flexible enough to adapt to changing conditions the company can provide funds when needed to fund any profit making activities.

Conservatism: The capital structure of the company should be conservative because the debt portion of a company should not exceed the company's solvency. Debt a company's ability depends on its ability to generate sufficient future cash flows to meet its needs interest obligations and repayment of principal when due.

Control: The capital structure should be designed to minimize involvement existing shareholders lose control of the company. The above are the general characteristics of optimal capital structure. The importance of these features may vary from company to company. For example, a one company may value flexibility over conservatism, while another solvency rather than profitability may be pursued. But it can be said that the company's capital structure should be easily adaptable.

1.4 DETERMINANTS OF A CAPITAL STRUCTURE

The capital structure of a company depends on a variety of factors. The varying importance and impact of various factors in a business will change over time. The following factors should be considered when deciding on capital company structure.

Trading on equity and EBIT-EPS analysis: use long term debt and preferred equity capital with fixed returns securities together with equity capital are known as financial leverage or equity transactions. Use as long as the return on investment remains constant, long term debt increases earnings per share (EPS) (Return on investment) is greater than the cost of debt. But in the case of debt, the leverage effect is more obvious because of two reasons:

The cost of debt is generally lower than other forms of capital

Interest paid on debt is tax deductible.

Financial leverage is one of the important considerations because of these reasons planning the company capital structure. company with higher profitability in the past interest and taxes (EBIT) High leverage can be used to increase profits return on equity EBIT-EPS analysis is an important tool in the hands of businesses financial managers have in depth knowledge of a company capital structure planning. Therefore, people should analyze possible changes in EBIT under different financing options and their impact on EPS. When conditions are favorable, financial leverage increases earnings per share; however, it can also increase financial risk for shareholders. Therefore, companies should use debt to repay such debt. Financial risk does not compromise leverage.

Stability and growth of sales: this is another important factor that affects a company capital structure. These sales are stable, profits are stable, and the company will not encounter difficulties its fixed obligation to pay interest and repay debt to raise more capital debt amount. Similarly, sales growth will also affect capital structure decides. Generally speaking, the higher the sales growth rate, the more debt can be used when financing company. On the other hand, if a company sales everything is swinging and falling wildly.

Cost of capital: the cost o capital is also one of the important factors to keep in mind during the investment process. Design the company's capital structure. Of all sources of capital, equity capital is the most costly because shareholders bear the highest risk. Debt capital, on one other hand, is cheapest source of capital because interest on debt capital is tax deductible making debt capital is cheaper compared to other forms of capital. Preferred equity capital is also because preferred stock dividends are paid at a fixed rate, they are cheaper than equity capital. Since total capital cost is the sum of all specific

capital costs, and the capital structure should carefully designed to minimize overall capital costs.

Control: Sometimes the design of a company's capital structure is influenced by the wishes of shareholders. Existing management retains control of the company. Whenever additional funds are needed, company management wants to raise capital without losing control of the company. If the issuance of shares to raise funds dilutes the control rights of existing shareholders. Therefore, they can raise funds through the issuance of fixed mortgage debt and preferred equity capital, because preferred shareholders and debt holders do not have any voting rights. Debt financing is desirable from a control perspective but may lead to over-reliance on debt capital heavy interest burdens and fixed changes can lead to liquidation of the company.

Flexibility: flexibility means a company has the ability to adjust its capital structure to changing needs situation. The design of a company's capital structure must be able to substituting one financing method for another to save money. Preferred stock and bonds offer the highest flexibility in capital structure because they can company discretion. Therefore, the capital structure should be flexible enough to raise additional funds provide funding when needed without excessive delays and costs.

Size of the firm: the size of an enterprise affects the design of its capital structure. Small company find it very difficult to mobilize long term debt because they have to be prepared to pay higher interest rates interest and inconvenient terms. Therefore, the capital structure of small businesses is very rigid they must rely more heavily on equity and retained earnings to meet their needs. Therefore, small companies sometimes limit the growth of their business and any additional funding. The requirements are met only through the issuance of equity capital or retained earnings.

Marketability and Timing: capital market conditions do not change at any time. Sometimes there may be periods of depression, while at other times the market may experience booming conditions. The company should decide whether to issue stocks or debt capital should be considered based on market conditions. Inside in an economic downturn, companies should not issue equity but instead seek debt capital. Superior on the other hand, in times of prosperity, companies can easily raise funds by issuing bonds

equity. A company's internal conditions may determine the marketability of securities. For example, a highly leveraged company may find it difficult to raise additional debt.

Purpose of funds: The purpose of the raised funds should also be considered when determining the purpose of the funds. If the funds raised are used for productive purposes, debt capital is more appropriate because interest can be paid from the profits generated by the investment. But if it is to get something for nothing purpose and fairness should take precedence.

Legal restrictions: various guidelines issued by the government from time to time on this issue. The amount of stocks and bonds should be kept in mind when deciding on a company capital structure. These legal restrictions are important because they provide a framework within which capital structural decisions should be made.

1.5 FACTORS AFFECTING CAPITAL STRUCTURE

1.5.1 INTERNAL FACTORS

(1) Financial leverage: Fixed holdings of securities and preferred stocks using debt. Equity in the capital structure is described as "financial leverage" or "equity trading".

(2) Risk: debt capital increases financial risk, while equity securities reduce financial risk. The risk associated with using leverage is called "financial risk". It increased use of debt due to increased variability among shareholders income and bankruptcy threats.

(3) Growth and stability: companies with lower sales revenue must reduce their debt burdens, because the company is unable to pay interest on its debt. Otherwise, need the company is liquidated directly. Therefore, growth and stability policies will directly affect the capital structure.

(4) Retaining control: management's attitude toward retaining control of the company. A company's capital structure will have a direct impact. If it exists shareholders want to continue to hold shares in the company, but may not encourage additional issuance of equity capital. Newly issued share capital reduces interest and equity in the company. Divisible profit percentage such companies will also fail. In the long run, it will affect the market value stock available.

(5) Cost of capital: Cost of funds refers to the expectations of providers of funds. this the purpose of understanding the cost of capital is to increase return on investment, this way, the company should earn enough profit to repay the interest and installments the principal belongs to the lender. Therefore, it is also called the maximum rate of return. A company makes a profit from its investment, so the market value of the company's equity the company will not fail.

(6) Cash flows: A company's cash flow capabilities will directly impact capital structure. The company's cash flow generations capabilities increase resilience financial managers determine the capital structure. Cash generated by the company or a continuous supply of cash enhances a business's reputation corporate cash flow enables a company to meet its short term obligations.

(7) Flexibility: Flexibility means a company has the ability to adjust its capital structure to suit demand conditions change; its capital structure should be flexible so that it does not require too many in times of practical difficulty, a company can change the securities in its capital structure.

(8) Purpose of finance: Financing purpose is another factor that affects capital structure. If companies engage in commercial transactions and can combine debt and equity or you can enjoy leveraged benefits. If you're nonprofit findings establish social welfare measures whose requirements can only be met through equity capital. Therefore, the purpose of operations affects the capital structure.

(9) Asset structure: funds are needed for investment in fixed assets and current assets. Investment in fixed assets can be financed from long term sources, i.e. through the issuance of equity, bonds or preferences. Part of investment in current assets is also funded by long term sources. Short term resources are used to satisfy working capital requirements. Therefore, the assets structure (fixed assets and current assets) affects the capital structure.

1.5.2 EXTERNAL FACTORS

(1) Size of the company: If the business is small. The funding requirements are too small. If the business scale of the enterprise is large amount of capital. If a company plan to raise a small amount of capital, so only a few securities are selected capital structure. If

more funds are required, the number of different securities will be choosing to raise funds that are more flexible in your capital structure.

(2) Nature of industry: The nature of the industry, production methods, and product typeset. Will also affect capital structure. Utility companies with unique support and identify ways in which the state and central government can raise funds through preferred stock or bonds. Capital intensive industries, engaged in steel products manufacturing may have higher equity and lower debt capital.

(3) Investors: Investor's behavior has changed in recent years. Now investors are cautious about investment due to political and socio-economic factors the country makes investors very vigilant in portfolio management. Therefore, capital markets are moving from equities to debt and from debt to deeply discounted bonds. Financial managers must choose capital securities carefully structures.

(4) Cost of floatation: Listing costs refer to the expenses incurred by the company during the listing process. The process of dealing with public issues. Advertisements, activities, application from printing, commercial banking fees, etc. managers must assess such charges with specific reference to each financial charge musical instruments. Debt float is relatively low compared to costs equity issuance. He should try to reduce this cost through an appropriate mix of debt and debt. Equity in the capital structure.

(5) Legal requirements: Government legal and regulatory requirements will also affect capital structure. SEBI guidelines on investor protection, maintenance of debt equity ratio and current ratios, sponsor contributions, etc. will directly affects capital structure. In addition, the government's monetary and fiscal policies also affect capital structure decisions.

(6) Period of finance: funds are needed at different times and for different purposes. Short term (1-3 years) funds are required to meet working capital requirements. Therefore, it is proposed through commercial banks (cash credit). Medium term financials (years 8-10) are funds required to meet expansion and diversification purposes may be raised by using preferred rights or debenture capital. Permanent need for funds for the company to meet its capital expenditures. This can be raised through the issuance of equity share. Therefore, the financial cycle also affects the capital structure.

(7) Level of interest: The level of interest rates will directly affects borrowed funds. If the expectation of bankers or financial institutions is more to get a high percentage of interest, the company can defer raising capital or can use retained funds income. Therefore, it affects the capital structure.

(8) Level of business activities: As the level of a company's business activities increases, more capital is required expansion and diversification. The company may choose to raise additional capital by issuing bonds, preferred shares, or borrowing term loans. Therefore, it affects the capital structure.

(9) Availability of funds: The supply of funds in capital and money markets will directly affect the company's financial structure. Free flow of money in the economy encourages companies to raise funds through securities without requiring too much difficulty. Therefore, financial managers must study the flow and availability of funds financing before he decides on the capital structure.

(10) Taxation policy: High corporate tax, high dividend tax and capital gains tax directly impact capital structure decisions. High taxes hinder equity issues encourage the issuance of larger debt instruments as these debt instruments have fixed fees securities I.e. interest can be credited directly as income to the profit and loss account tax calculation. As a result, the company's capital structure is affected.

(11) Level of stock prices: If the overall price level of inventory or raw materials remains unchanged over a period of time over time, management prefers to invest through equity or preferential capital, in other words, long term or medium term financing. If prices are too volatile (unpredictable) and short term sources are the best choice for investment.

1.6 THEORIES ON CAPITAL STRUCTURE

Not all specialists in finance believe that there is an ideal capital structure. Regarding this extended of the ideal capital structure; there are two extreme points of view. According to one school of thinking, the capital structure affects the firm's value and the cost of capital; hence there is capital structure. However, the opposing school of thinking contends that the capital structure is irrelevant and has no bearing on the firm's worth or the cost of capital. In right of these perspectives, various theories of capital structure have

been established in the business finance theory. These theories principal proponents are David Durand, Ezra miller, Modigliani, and Solomon. The key theories on capital structure are as follows:

(1) NET INCOME APPROACH

(2) NET OPERATING INCOME APPROACH

(3) THE TRADITIONAL VIEW

(4) MODIGLIANI AND MILLER HYPOTHESIS

The following presumptions are established in order to fully comprehend these theories and the connection between capital structure and cost of capital or firm value:

ASSUMPTIONS

Businesses only use equity and loan capital.

The firm's entire asset list is provided.

The total finance of the company stays the same. By selling shares to retire debt or by selling debt to buy back shares, the amount of leverage can be adjusted.

The company pays out 100% of its earnings as dividends, or a 100% payout ratio.

There is no expectation that the company's operating earnings (EBIT) will increase.

It is expected that business risk is continuous, unaffected by changes in capital structure, and monetary risk.

The subjective probability distribution of an investor's predicted future operating profits for a specific company.

Both personal and business taxes are absent. Later on, this presumption is loosened.

The capital structure theories are explained using the following definitions:

S = stands for equity share market value.

D = is the debt's market value.

$V = S + D = \text{Firm's market value}$

NOI= or earnings before interest and taxes, is equal to X, or predicted net operating income.

Net income (NI) is equal to NOI - Interest, or shareholders' earnings.

1.6.1 NET INCOME APPROACH

David Durand created the net income method, which maintains that capital structure matters and that using debt in a company's capital structure can both raise its value and lower its cost of capital. This idea states that the more debt capital use, the firm's worth will increase and its overall cost of capital will decrease.

This theory is subject to the following assumptions:

- (1) The cost of debt is less than the cost of equity.
- (2) The risk perception of investors is not affected by the use of debt, as a result, the equity

Capitalization rate (K_e) and the debt – capitalization rate (K_D) don't change with leverage.

- (3) There are no corporate taxes.

As per the above assumptions, cost of debt is cheaper than the cost of equity and they remain.

Constant irrespective of the degree of leverage. If more debt capital is used because of its relative.

Cheapens, the overall cost of capital declines and the value of the firm increases

FIGURE 1.1NI APPROACH

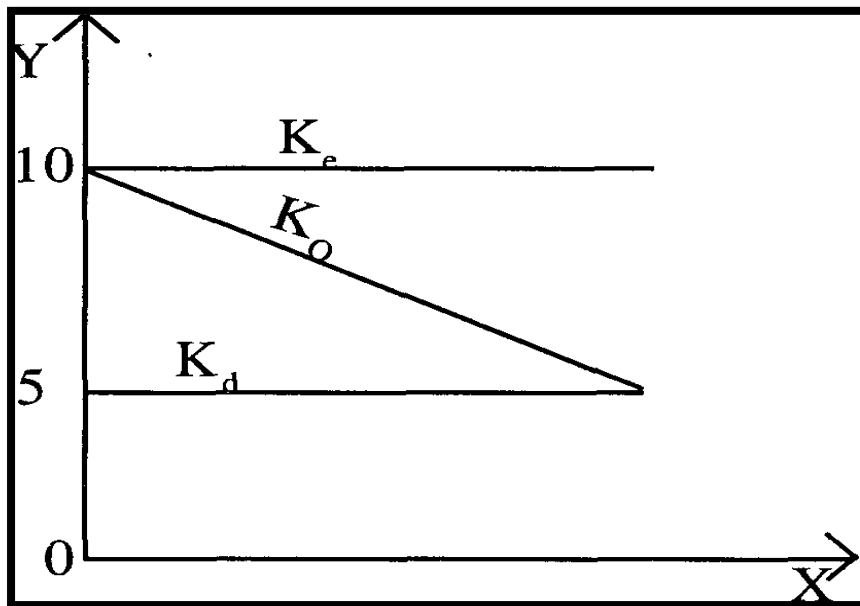


Figure 6.1 makes it clear that overall cost of capital ($KO = Ke$) equals cost of equity when degree of leverage is zero, i.e., no borrowed capital is used. As more loan capital is used, which is comparatively less expensive than the cost of equity, When leverage is one, the total cost of capital decreases and equals the cost of debt (KD) (i.e. the firm is totally debt funded). Thus, when the degree of leverage is one, the capital structure of the company will be optimal, according to this approach.

1.6.2 NET OPERATING INCOME APPROACH

David Durand also proposes the net operating income (NO I) approach, which is an additional extreme viewpoint on the firm's value and capital structure. According to this method, the firm's capital structure has no bearing on its cost of capital or overall value.

The following formula determines the firm's value (V):

$$V = S + D = \text{NOI} / KO$$

Ko , or the total cost of capital, is determined by the firm's business risk and is unaffected by the capital mix.

The crucial presumptions of this hypothesis are as follows:

1. The market values the company holistically; the proportion of debt to equity is immaterial.

2. The risk to the business is the same regardless of the debt-to-equity ratio.
3. Corporate taxes do not exist.
4. There is a constant debt capitalization rate (K_D).

This perspective holds that using less expensive debt raises the risk to equity stockholders, which raises the equity capitalization rate (K_e). Consequently, the debt's low cost advantage is precisely countered by the rise in the equity capitalization rate. Consequently, the total as a result, the firm's worth stays unchanged and the capitalization rate (K_O) stays constant.

FIGURE 1.2 NOI APPROACH

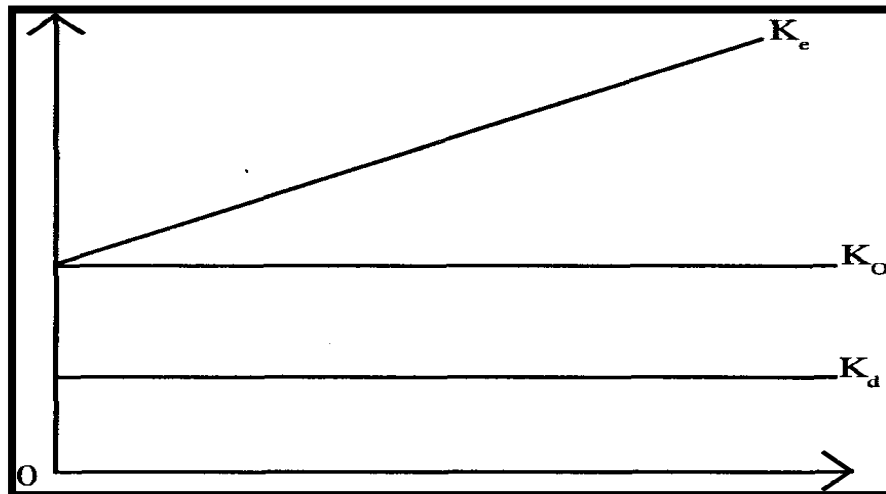


Figure 6.2 shows that whereas K_e continuously rises with leverage, K_O and K_D remain constant.

At every level of leverage, the benefit of cheap debt is precisely compensated by an increase in the cost of equity (K_e), maintaining a constant overall cost of capital (K_O). This suggests that each and every capital there is only one optimal capital structure; there is no other optimal structure.

1.6.3 TRADITIONAL VIEW

Ezra Solomon coined the term "intermediate approach," which is another name for the traditional technique. It represents a middle ground between the net income strategy and the net operating income approach. This method states that the cost of capital can

be decreased or the company's worth can rise with a prudent debt to equity ratio. According to this idea, when debt capital is increased up to a certain point, the cost of capital decreases; beyond that, it rises with additional debt capital. Accordingly, there are three stages to the classic notion of the relationship between the capital structure and the firm's value, which are explained as follows:

First Stage: Increasing Value

Increasing Value In this stage, the cost of debt is lower than the cost of equity, and the costs of equity and debt are constant (K_e , K_D). Using loan capital up to a manageable amount will result in the low cost advantage of debt will cause the overall cost of capital to decrease. When a result, when leverage increases, the K_O falls and the firm's overall value, V , rises in tandem.

Second stage: Maximum Value

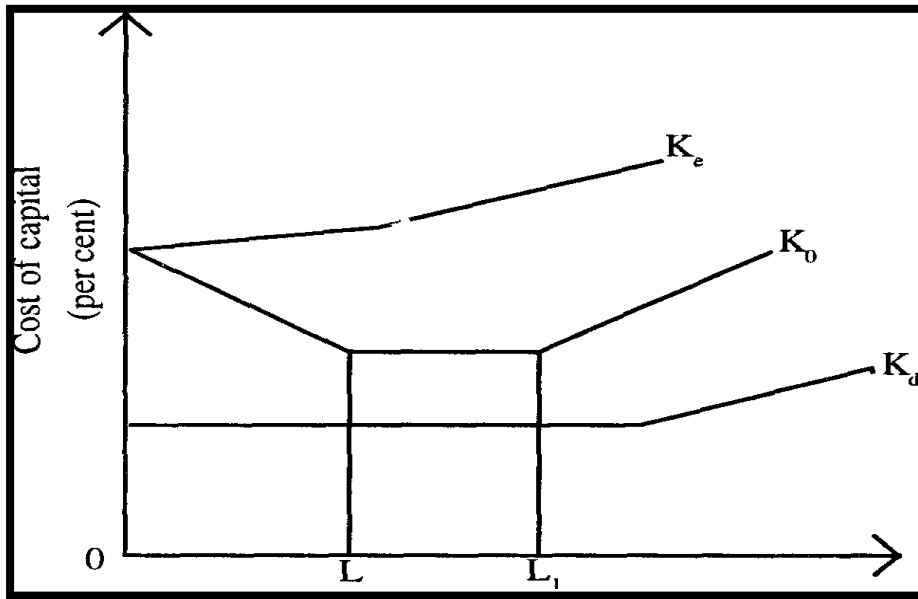
A further increase in debt will not impact the firm's value or the cost of capital after it has reached a particular level of leverage. This is due to the fact that an additional spike in the risk to equity shareholders is increased by loan capital, which raises K_e . The low-cost benefit of loan capital is precisely compensated by this increase in K_e , ensuring a constant overall cost of capital (K_O) and maximizing the firm's value.

Third stage: Declining value

The cost of equity (K_e) and the cost of debt (K_d) start to rise at this point if the company uses more debt capital than is reasonable, which increases the risk to debt holders and equity owners. Ultimately, this raises the total cost of the transaction of money (K_O).

From the discussion above, it is clear that leverage affects the cost of capital (K_O). Up to a certain point, increasing debt capital lowers the cost of capital and boosts the firm's value; however, after that point, the overall cost of capital (K_O) tends to climb. As a result, the firm's worth will decrease, as seen in Figure 5.3.

1.3 TRADITIONAL APPROACH



The optimum capital structure is located between L and L₁, as shown by Figure 6.3, which shows that the overall cost of capital decreases with increasing leverage up to point L and increases with increasing leverage beyond point L₁.

The conventional perspective on capital structure is criticized because it maintains that investors value leveraged companies more than unlevered companies, leading them to pay a premium for the shares of leveraged companies. In this case, the idea that investors' perceptions of leverage risk vary depending on the amount of leverage is not sufficiently supported.

1.6.4 MODIGLIANI AND MILLER HYPOTHESIS

The conventional perspective is at odds with the Modigliani-Miller hypothesis. Modigliani and Miller contended that changes in capital structure have no effect on the cost of capital or the firm's value when taxes and transaction expenses are absent. Stated differently, capital structure Decisions don't matter, and the firm's worth is unaffected by the ratio of debt to equity. The best way to understand the M and M hypotheses is to think about their two statements.

1.6.5 ASSUMPTION OF THE M & M HYPOTHESIS

The M & M's Proposition I is predicated on a number of assumptions about investor behavior, financial markets, and the nation's tax code. They are as follows:

- (i) The capital market is ideal, wherein Investors enjoy the following benefits:
 - (a) They can purchase and sell securities at any time;
 - (b) They can borrow money at the same terms as businesses;
 - (c) They act rationally;
 - (d) They have access to information; and
 - (e) There are no transaction fees.
- (ii) Businesses can be categorized into homogenous risk classes, meaning that all businesses in a given risk class will face roughly the same level of financial risk.
- (iii) The net operating income (EBIT) of a company is what all investors anticipate.
- (iv) There are no retained earnings because the dividend payment ratio is 100%.
- (v) Corporation taxes do not exist. Later on, this presumption was eliminated.

PROPOSITION 1

The firm's value and the total cost of capital (KO) are unaffected by the capital structure. Capitalizing the predicted net operating income at the appropriate rate for that risk class yields the firm's overall market value.

M - M states that the total market value for businesses in the same risk class is calculated by capitalization net operating income at a rate suitable for that risk class, and it is independent of capital structure. The following is an expression of Proposition I:

$$V = S + D = X / KO = NOI / KO$$

Where, V = the firm's market value.

S= the equity's market value.

D= the debt's market value.

X = the anticipated profit from operations (EBIT)

K= is the capitalization rate suitable for the firm's risk category.

Proposition I states that the average cost of capital (Ko), which is ascertained as follows, is independent of the level of leverage.

$$KO = X/V$$

ARBITRAGE PROCESS

The basic reasoning behind Proposition I, according to M-M, is that two businesses that are identical aside from their capital structure cannot have distinct market values or different capital costs. If these enterprises have different market values, there will be an arbitrage and the market values will quickly return to equilibrium. When market prices fluctuate, investors may move their investments from one company to another in an attempt to profit by selling their high-priced stocks and purchasing low-priced assets. This is known as the arbitrage process. It is referred to as personal leverage or home-made leverage when investors use debt. The market price of securities in the higher valued market will decrease as a result of the arbitrage process, while the market price of securities in the lower valued market will increase. This process of switching will continue until the market values of both enterprises reach equilibrium. As a result, M and M contended that identical enterprises cannot have different market values.

Additionally, the arbitrage mechanism operates in reverse. There are no benefits or drawbacks to leverage. The arbitrage process operates in reverse if the market value of the unlevered firm is higher than that of the levered firm. Investors will attempt to move their investments from the unlevered firm to the levered firm in order to quickly reach equilibrium.

Thus, the M-M demonstrated in terms of their thesis I that the mix of debt and equity in the capital structure had no bearing on the firm's value.

PROPOSITION 2

As the amount of debt in the capital structure increases, the financial risk also rises. Consequently, the low-cost benefit of debt is precisely compensated by an increase in the cost of equity (K_e), keeping the overall cost of capital (KO) constant.

According to M-M's proposition II, the cost of equity for every company in a certain risk class is equal to the constant average cost of capital (KO) plus a premium for financial risk, which is calculated as the spread between average cost and cost of debt times the debt-to-equity ratio. Cost of equity is therefore explained as:

$$K_e = K_0 + (K_0 - K_D) D/S$$

Where, k_e = cost of equity

D/S = debt – equity ratio

M-M contend that K_0 won't rise as leverage rises because the low-cost benefit of debt capital will be precisely compensated by an increase in equity costs brought on by an increased risk to stock investors. One of the most important aspects of the M-M hypotheses is that excessive leverage will raise the risk to the loan holders, which raises the cost of debt (K_D). But this won't cause K_0 to increase. In this particular situation, the M and M argue that K_e may decrease or increase at a decreasing rate. This is due to the fact that when leverage increases, loan holders will share the extra risk, keeping the K_e constant. This is demonstrated in Figure 5.4, which is provided below:

COST OF CAPITAL

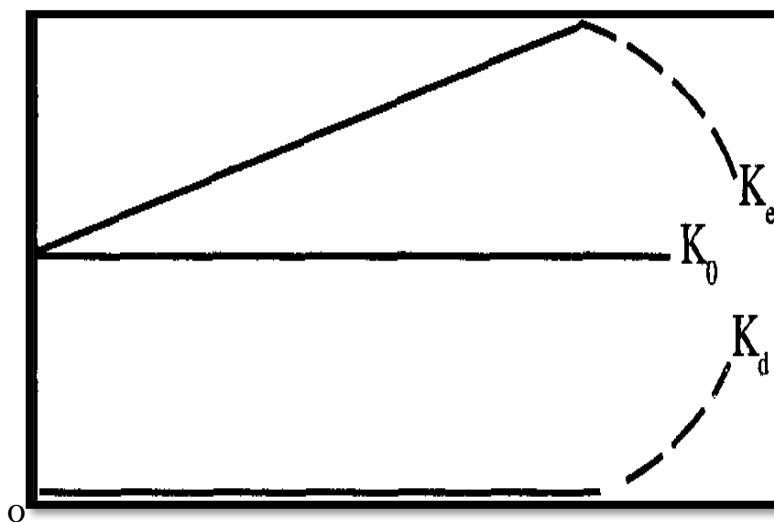


Figure 1.4 M & M Hypothesis and cost of capital

1.6.6 CRITICISM ON M & M HYPOTHESIS

The M & M Hypothesis, which is based on the arbitrage process, is not able to achieve the intended equilibrium due to the following constraints.

(A) Interest rates differ for people and businesses. Because the companies typically have better credit than individuals.

(B) An additional critique posits that domestic leverage is not an ideal replacement for corporate leverage. If the company takes out a loan, the shareholder's risk is restricted to his shareholding; however, if he takes out a personal loan, his personal property will also be subject to responsibility. Therefore, it is incorrect to assume that leverage created at home can perfectly replace leverage obtained from a corporation's can borrow money at cheaper interest rates.

(C) Since transaction costs are inevitably associated with the purchase and sale of securities, it is impractical to assume that they do not exist.

(D) Institutional constraints have an impact on arbitrage because they prohibit institutional investors from using home-made leverage.

(E) The main obstacle to the M-M hypothesis is the existence of corporate taxes, which are deductible from taxes. As a result, a leveraged company's cost of debt will be lower when taxes are present because of the tax advantage.

1.6.7 M – M HYPOTHESIS CORPORATE TAXES

Modigliani and Miller came to understand the significance of corporation taxation. As a result, they concurred that the use of debt capital in the capital structure will raise the firm's value or lower the cost of capital because interest payments are tax deductible. Therefore, by adding more debt to the company's capital structure, the ideal capital structure can be achieved. Using this method, a firm's value can be determined as follows:

$$\text{Value of unlevered firm (}v_u\text{)} = \text{EBIT} / \text{KO (}I - T\text{)}$$

$$\text{Value of levered firm (}V_L\text{)} = V_u = DT$$

Where, EBIT = Earnings before interest and taxes

KO = Overall cost of capital

D = Value of debt capital

t = Tax rate

(1)THEORETICAL FRAMEWORK

Technically speaking, capital structure is the choice made on how best to allocate cash inflows between debt and equity capital, which is how the company finances its assets and ongoing operations. However, from a tactical standpoint, it affects everything, including the risk profile of the company, the cost of flotation, the ease of acquisition, the return to lenders and investors, and the level of protection against macro and microeconomic downturns.

Financial executives should focus on a number of capital structure-related issues because decisions regarding the organization's capital structure directly affect its financial performance. Once a company has decided on its investment strategy, it should plan which possible sources to use to obtain the necessary funds. Businesses without a well-planned capital structure are more likely to have an unbalanced and uneconomic capital structure, which could cause them to encounter significant challenges in the long run when trying to raise capital on favorable terms and have a negative effect on their financial performance. Comprehending the theoretical framework associated with capital structure is crucial for understanding the relevance of building the optimal capital structure through sufficient analysis of the numerous magnitudes related to this field. As a result, the section that follows provides a brief overview of the ideas and concepts surrounding capital structure, including the idea of an ideal capital structure, potential factors influencing it, theories related to capital structure, and several methods for determining a target capital structure.

(2)THE CONCEPT OF OPTIMUM CAPITAL STRUCTURE

A capital structure that strikes a balance between the ideal debt-to-equity ratios and minimizes capital costs while optimizing the firm's value is considered optimal. The combination of debt and equity that "minimizes the firm's overall cost of capital" is another definition of the ideal capital structure.³ Therefore, the goal of an ideal capital structure is to simultaneously maximize the market value of the company and the cost of capital. Stated differently, a capital structure that maximizes the firm's value is ideally designed to minimize the weighted average cost of capital (WACC) of the organization.

Because debt financing is tax deductible, has a relatively low interest rate, and is relatively inexpensive to issue, it should theoretically give the lowest cost of capital.

Thus, a company's total cost of capital will go down if it uses more debt in its capital structure. A better return on equity (EPS) is the result for the shareholders. The market value of shares will rise as a result of this. However, there is an increased risk for the equity shareholders. Conversely, a company's total cost of capital rises when it uses less debt in its capital structure. A decreased return on equity (EPS) is the result for the shareholders. As a result, the shares' market value decreases. However, the risk for equity shareholders must be reduced. As a result, risk and return should be traded off, giving rise to the idea of the ideal capital structure.

As mentioned before, the optimal capital structure is found at the intersection of the firm's maximum value and its lowest total cost of capital. It is computed by taking financial leverage, cost of capital, and firm value into account. The relationship between these three characteristics is well-illustrated in the accompanying graphic.

(3) RISK RETURNS TRADE OFF

The risk-return trade-off can also be used to determine the ideal capital structure. Risk related to capital structure can be divided into two categories. One has to do with how debt is employed, while the other has to do with how debt is not employed. The term "financial risk" refers to the former, and "non-employment of debt capital" (NEDC) risk to the latter. The use of debt or fixed charge bearing securities in the capital structure results in financial risk.

A debt-free business has absolutely no financial risk. The firm's leverage determines the extent of the financial risk. Interest must be paid at a certain rate, regardless of business earnings, to a corporation that uses debt as part of its capital structure. Liquidation risk is increased when fixed charges are unpaid. The volatility of earnings accessible to equity shareholders is also represented by the financial risk.

A company faces the risk of having no debt fund if it does not use debt in its capital structure. The use of debt in total capital is inversely correlated with the NEDC risk. Lower NEDC risk is associated with higher debt-to-equity ratios or financial leverage, and vice versa. A company cannot use financial leverage to boost profits per share (EPS) if it does not use debt. If it issues more and more equity, it can lose control. Additionally, the cost of floating equity may be higher than the cost of borrowing money.

In order to get the ideal capital structure, the finance manager must minimize overall risk and optimize potential return. Therefore, in order to maximize the firm's market value, there needs to be a trade-off between financial risk and the risk of non-employment of debt.

(4) POTENTIAL DETERMINANTS OF CAPITAL STRUCTURE

Many factors, including trading on equity, the nature of the business, the desire to maintain control, flexibility, conditions in the capital market, costs of floatation, liquidity, growth, corporate tax rate, and regulatory framework, greatly influence the management policy regarding a concern's capital structure decision.

Because a business's capital structure dictates its organizational and financial health, financial management must weigh the advantages and disadvantages of different funding sources to create the best possible capital structure by spreading out outstanding shares and corporate debt. The following components are frequently recognized, even if the numerous factors affecting capital structure may be firm- or industry-specific or susceptible to change over time.

(5) TRADE OFF THEORY

Various authors use the term "trade-off theory" to refer to a group of related theories. The premise that the amount of debt and equity finance can be chosen by weighing costs and benefits is the foundation of the trade-off theory of capital structure. The theory's traditional form dates back to Krause and Lichtenberger, who examined the trade-off between debt's tax benefits and the bankruptcy's deadweight costs. Agency fees are frequently added to the debt as well. According to trade-off theory, a corporation must weigh the advantages of debt in terms of taxes against the disadvantages of financial crisis when deciding on its capital structure. Businesses that modify their capital structure typically aim for a target debt ratio that aligns with theories that consider trade-offs between the advantages and disadvantages of debt. The goal ratio may vary over time as the firm's profitability and stock price change, and firms may encounter challenges moving toward it, according to empirical work by Hovakimian, Opler, and Titman (2001)¹³.

(6) STATIC TRADE OFF THEORY

According to the theory, businesses should balance the advantages of using debt and equity against their expenses in order to find their ideal capital structure. Thus, the advantages of the debt tax shield are weighed against the price of financial hardship. Among the additional costs that need to be reduced are agency costs, transaction costs, and informational asymmetry. The ideal position can be reached when the increase in the present value of the costs associated with taking on more debt is exactly offset by the marginal value of the benefits associated with taking on more debt (Myers 2001)¹⁴.

(7) DYNAMIC TRADE OF THEORY

According to the dynamic trade-off theory, businesses may stray from their intended capital structure and then show signs of adjusting to return to it. The first dynamic models that take into account the trade-off between tax savings and bankruptcy costs were put forth by Brennan and Schwartz (1984)¹⁶ and Kane, Marcus, and MacDonald (1984)¹⁵. They included bankruptcy costs, taxes, and uncertainty in their models, but not transaction costs. Because there are no transaction costs, these companies can afford to retain large levels of debt in order to benefit from tax savings and to absorb shocks without incurring any costs.

(8) BANKRUPTCY COST THEORY

The existence of bankruptcy expenses affects the choice of capital structure as well. Unable to pay its fixed rate debt puts a company in financial trouble, which might eventually result in bankruptcy. The probability of financial difficulty increases with debt level since higher debt levels are connected with larger debt burdens. Investors may find the unlevered corporation more appealing than the leveraged one if there is a risk of bankruptcy and substantial administrative and other costs are involved. Consequently, as leverage rises, investors are likely to penalize the stock price.

When profitability drops, projected bankruptcy costs also climb, and the prospect of these costs forces less profitable companies to aim for lower leverage ratios. Similarly, companies with more unpredictable earnings are projected to face higher bankruptcy costs; this should encourage smaller, less diversified companies to use less leverage. Taxes have two opposing effects on the best possible capital configuration. Businesses tend to use more targeted leverage when corporate interest payments are deductible,

whereas they use less leverage when their personal debt-to-equity ratio is higher. Using the idea of bankruptcy costs, Baxter (1967)¹⁷ made the case for the existence of an ideal capital structure. Rising debt funding can raise the chance of filing for bankruptcy, which will raise the anticipated expenses of filing (such as attorney fees, lost revenue, staff, and suppliers). When the marginal tax savings from debt financing equals the marginal loss from anticipated bankruptcy expenses, the ideal debt ratio is obtained.

(9) AGENCY COSTS THEORY

The concept of agency costs was first established by Jensen and Macklin in 1976. According to this idea, there may be a conflict between managers' and shareholders' interests, and if managers are left to make important financial decisions on their own, such selecting a capital structure, they may choose options that are not in the best interests of shareholders. Managers will want to maximize their personal utility at the expense of corporate shareholders in a perfect labor and capital market.

The reason for this is asymmetric information, meaning that shareholders are not as knowledgeable as management. Nonetheless, the principal can steer the agent's actions in the direction of their interests by providing suitable incentives and bearing monitoring expenses intended to curtail the agent's corrupt actions. Therefore, the total of the principal's monitoring expenses, the agent's bonding expenses, and the residual loss constitutes agency costs. Therefore, it is difficult to make the greatest choice at no cost in the principal's best interest. Furthermore, it is argued that capital structure models that do not account for agency costs are insufficient.

(10) SIGNALING THEORY

A novel theory known as the signaling, or asymmetric information theory of capital structure, was put forth by Myers and Majluf (1984)¹⁹. They clarified that as managers are driven to raise concerns when the stock is expensive with asymmetric knowledge, equity issues are typically rationally perceived as negative news. According to Ross (1977)²⁰, organizations' worth will improve as their leverage increases since a higher leverage will be perceived as having more value by the market. One of the primary causes of the relative rarity of stock issuance among well-established major corporations is this. Additionally, debt is crucial in helping investors produce data that is helpful for managing risk and making wise financial decisions (Harris and Raviv, 1990)²¹.

(11) MARKET TIMING THEORY

Market timing suggests that businesses issue new shares when they believe the existing stock is overpriced and repurchase existing shares when they believe the stock is undervalued. The goal is to take advantage of brief variations in the price of equity in comparison to other capital sources (Baker and Wurgler, 2002)²². According to this hypothesis, a company's current capital structure is the result of several attempts to time the equity market. Consequently, there exists a high correlation between the present capital structure and past market prices.

(12) PECKING ORDER THEORY

Pecking order theory was initially put forth by Myers (1984) and Donaldson (1961)²³. This hypothesis states that management makes finance decisions based on a preference. In essence, pecking order theory provides a behavioral explanation for the financing practices of certain businesses. It supports a few logical claims, including those about signaling and asymmetric information. Furthermore, this aligns with the finding that the most successful businesses in a given sector typically possess the least degree of leverage. More profitable businesses borrow less, which is explained by the pecking order idea. Internal finance is the first to get attention when businesses need to raise more money. When obtaining outside funding, businesses prioritize the highest level of security. Debt is their first priority, followed by hybrid assets like convertible bonds and, as a last resort, possibly equity.

Pecking order theory works well for big businesses that are highly profitable and have enough cash on hand in the form of retained earnings. These companies adhere to a target dividend payment ratio and a strict dividend policy. Accordingly, this theory contends that extremely prosperous businesses favor using their own resources and will borrow money rather than issue equity when they need outside funding. According to the pecking order theory, managers who are reluctant to issue equity will typically result in greater debt ratios for high growth enterprises with significant financial needs. Pinegar and Wilbricht (1989)²⁴, who discover that business managers are more inclined to pursue a financing hierarchy than to uphold a goal debt-to-equity ratio, lend weight to this viewpoint.

(13) FREE CASH FLOW THEORY

This notion has also been developed for established businesses that frequently overinvest. It asserts that even in cases where a company's operating cash flow considerably outpaces its lucrative investment prospects, a high debt load will add value. Myers (2001:25). 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 make up for their lack of internal funding, businesses with negative free cash flow raise their debt ratio.

Apart from the theoretical framework pertaining to capital structure and profitability that was previously discussed, a substantial body of empirical research has been conducted on this subject, which will be thoroughly examined in the upcoming chapter. In order to enable the company to boost profitability and consequently increase the firm's value, all of these works clarified the function that loan capital plays in creating the ideal capital structure. Still, there is a mystery around the profitability and capital structure.

1.7 BRIEF HISTORY OF IT INDUSTRIES OF INDIA

1.7.1 INFOSYS

Introduction

The world leader in technology, consulting, and outsourcing services, Infosys Limited, has been instrumental in forming the information technology industry. Infosys, which was founded in 1981 by a group of seven entrepreneurs under the leadership of Narayana Murthy, has expanded from a modest start-up to a worldwide company that has a big influence on the world's IT market.

Founding years

In Pune, India, Narayana Murthy and his associates started Infosys with the goal of establishing a business that would offer premium software services. During the early years, the team had to persevere through difficulties obtaining projects and building trust in a market that was dominated by well-established firms. Nonetheless, Infosys' future success was made possible by its dedication to innovation and quality.

Rise to prominence

Infosys profited from the liberalization of the Indian economy and the rising demand for outsourcing services in the early 1990s. The business used cutting-edge technologies and established itself as a pioneer in the fields of IT consulting and software development. Infosys was soon acknowledged for its commitment to integrity, openness, and high standards in business operations.

The turning point

For Infosys, the year 1993 marked a sea change when it became the first Indian firm to list on the NASDAQ stock exchange, a sign of the business's ambitions to become global. This action demonstrated India's potential as a center for IT services while also giving the business access to foreign funding. With its triumphant IPO, Infosys began its global expansion and reaffirmed its dedication to provide clients with state-of-the-art solutions globally.

Global expansion

By opening offices and development centers across the United States, Europe, and Asia-Pacific, Infosys increased the scope of its worldwide presence. Through this calculated move, the business was able to meet the unique demands of clients in several locations and access a variety of talent pools. With services ranging from application development to business process outsourcing, Infosys became a household name in the world of IT outsourcing.

Innovation and Technology Leadership

Infosys has always been at the forefront of innovation in technology. The business made significant investments in R&D, which promoted a culture of ongoing learning and adaptation. By emphasizing cutting-edge technologies like block chain, cloud computing, and artificial intelligence, Infosys established itself as a thought leader in the IT sector. The company's focus on innovation improved its service offerings and advanced the general advancement of the technology industry.

Leadership Transition

Information Systems' early success was largely attributed to the visionary leadership of Narayana Murthy. The company's leadership changed over time, with important individuals including Nandan Nilekani, S. Gopalakrishnan, and Vishal Sikka holding important positions. Each CEO added their special insight and aided in the expansion of the business, solidifying Infosys' standing as a major player in the global IT industry.

Current Landscape

According to the most recent data available, Infosys is still a major force in the IT sector. The company has expanded the range of services it offers by adding industry-specific solutions, consulting, and digital transformation. Infosys continues to be a dependable and innovative partner for companies looking for IT services, with a clientele that includes companies in a variety of industries.

Conclusion

The development of Infosys Limited from a little start-up to a major player in the global IT market illustrates how dynamic the technology sector is. In addition to driving the company's own success, its dedication to quality, innovation, and moral corporate conduct has helped India become a major force in the world of information technology. Infosys's influence on the technology industry is expected to last, influencing the development of IT services and solutions as it continues to change and adapt to shifting market conditions.

1.7.2 TECH MAHINDRA

Introduction

Tech Mahindra is a well-known worldwide force in the business process outsourcing and information technology sectors, known for its cutting-edge solutions and services for digital transformation. Founded in 1986 as a joint venture between British Telecom and Mahindra & Mahindra, the business has developed into a global leader offering clients state-of-the-art technology solutions.

Founding Years and Early Growth

The history of Mahindra started in 1986 when British Telecom and Mahindra & Mahindra, a well-known global company in India, formed a joint venture. Initially known as "Mahindra British Telecom," the business began providing technology and communication solutions when it entered the telecom market. Using the knowledge acquired from British Telecom, the early years were devoted to offering IT services to the telecom sector.

Tech Mahindra changed along with the IT industry. The organization promptly adjusted to evolving technologies, broadening its offerings beyond the telecommunications domain to serve an array of businesses. This tactical change paved the way for Tech Mahindra to become a major player in the global IT services market.

Global Expansion and Diversification

Tech Mahindra concentrated on international expansion in the ensuing years, forging a solid foothold in important markets. Establishing a genuinely worldwide reach, the company opened offices and delivery facilities in North America, Europe, Asia-Pacific, and the Middle East. Tech Mahindra was able to take part in significant digital transformation projects, build client relationships, and access a variety of talent pools as a result of its expansion.

Because of Tech Mahindra's dedication to technological innovation and excellence, specific solutions for a range of industries, including manufacturing, finance, healthcare, and telecommunications, have been developed. The business positioned itself as a reliable resource for companies trying to negotiate the challenges of the digital revolution.

Digital Transformation and Next-Gen Technologies

As the IT industry embraced digital transformation, Tech Mahindra positioned itself at the forefront of this revolution. The company invested heavily in next-generation technologies such as artificial intelligence, machine learning, block chain, and the Internet of Things (IoT). This focus on innovation allowed Tech Mahindra to deliver transformative solutions that addressed the evolving needs of its clients. Tech Mahindra's expertise in digital technologies became evident in its involvement in various high-profile projects. The company played a crucial role in helping clients adopt cloud computing, develop advanced analytics capabilities, and implement digital platforms for enhanced customer experiences.

Corporate Social Responsibility and Sustainability

Tech Mahindra has demonstrated a strong commitment to corporate social responsibility (CSR) and sustainability. The company has undertaken several initiatives aimed at making a positive impact on society and the environment. From skill development programs for underprivileged youth to initiatives promoting environmental sustainability, Tech Mahindra has embraced its role as a responsible corporate citizen. In addition to its CSR efforts, Tech Mahindra has actively contributed to various social causes, including education, healthcare, and community development. The company's emphasis on ethical business practices and social responsibility has contributed to its reputation as a socially conscious organization.

Adapting to the future

As of 2022, Tech Mahindra continues to be a dynamic force in the IT industry. The company's focus on innovation, digital transformation, and sustainability positions it as a key player in the ever-evolving global business landscape. With a diverse portfolio of services and a commitment to excellence, Tech Mahindra is well-equipped to navigate the challenges and opportunities that lie ahead. In conclusion, Tech Mahindra's history is a testament to its ability to adapt, innovate, and thrive in the dynamic world of information technology. From its humble beginnings as a telecom-focused joint venture to its current status as a global IT services giant, Tech Mahindra has consistently demonstrated resilience and agility, making it a significant player in shaping the future of technology.

1.7.3 HINDUSTAN COMPUTERS LTD.

Introduction

Hindustan Computers Limited (HCL), a well-known international technology business, has been essential to the expansion and advancement of the Indian IT sector. Since its founding by Shiv Nadar in 1976, HCL has grown to become one of the world's biggest and most reputable providers of IT services and consulting.

Founding and Early Years

The origins of HCL can be traced back to a modest Delhi garage, where Shiv Nadar and a few other like-minded people set out to establish an indigenous IT business. At first, the firm concentrated on creating hardware solutions. In 1978, it made significant progress when it created the first domestic microcomputer, known as the 'HCL 8C.'

Diversification and Global Expansion

HCL expanded its global presence and diversified its offerings in response to the changing IT market. The business strategically entered the software services and consulting market to take advantage of the expanding demand for IT solutions around the globe. HCL's dedication to quality and innovation helped it establish a solid reputation as a reliable partner for companies looking for cutting-edge technological solutions. During the 1990s, HCL broadened its business operations outside of India and became a prominent player in the global market. Strategic alliances and acquisitions allowed the company to expand globally and provide a wide range of services and solutions. HCL's unwavering commitment to technological innovation and client happiness has allowed it to grow quickly and establish itself as a major force in the IT sector.

Innovative Initiatives

HCL is renowned for its creative projects that transcend conventional company lines. One such example is the "HCL Grant," which was introduced in 2015. This program helps individuals and non-governmental organizations in India that are promoting healthcare, education, and rural development. The HCL Grant has come to represent the business's dedication to sustainable development and corporate social responsibility.

Furthermore, HCL has led the way in fostering entrepreneurship with programs like "HCL First Careers," which concentrates on educating and hiring recent graduates. The company's commitment to developing talent and advancing society is demonstrated by its interactions with local communities, startups, and educational institutions.

Recent Developments

Through wise acquisitions and alliances, HCL has bolstered its standing in the international IT sector in recent years. In order to meet the changing needs of its clientele, the company has increased the scope of its expertise in cloud computing, digital transformation, and emerging technologies.

The customer-centric strategy adopted by HCL has received industry analysts' praise and several awards. The organization's standing as a dependable and progressive supplier of IT services has been cemented by its capacity to produce creative solutions and adjust to shifting market conditions.

Challenges and Future Outlook

Despite HCL's notable achievements, there are always hurdles in the evolving IT business. Due to competition from both well-established businesses and up-and-coming startups, HCL is always innovating and improving its products. The global IT landscape can also be impacted by geopolitical and economic considerations, thus HCL must skillfully navigate uncertainty.

In the future, HCL will be in a good position to benefit from the wave of digital transformation and the rising need for cutting-edge technological solutions. This company's success in the constantly changing IT market will probably continue to be fueled by its dedication to quality, customer happiness, and ethical business practices.

Conclusion

Hindustan Computers Limited has advanced significantly since its modest start in a Delhi garage. It is currently regarded as a worldwide IT giant, greatly enhancing India's

standing as a center of technology. In the cutthroat field of information technology, HCL is still a major competitor thanks to its long history of innovation, dedication to corporate social responsibility, and emphasis on customer happiness. HCL is positioned to play a significant role in influencing the direction of the IT sector as long as it continues to embrace new technology and adjust to new challenges.

1.7.4 TATA CONSULTANCY SERVICES LTD.

Introduction

In the field of consulting and information technology (IT) services, Tata Consultancy Services Ltd. (TCS) is a world leader. Since its founding in 1968, TCS has significantly shaped the IT sector and is now essential to the prosperity of the Tata Group. The company has grown over the years into one of the biggest providers of IT services worldwide, with a strong presence throughout many regions and a wide range of industries served.

Founding and Early Years

The main business of the Tata Group, Tata Sons, founded TCS with the goal of utilizing information technology to promote corporate expansion. TCS was established as a part of Tata Sons in 1968 by J.R.D. Tata, the visionary leader of the Tata Group. With a small crew at first, the company's main goal was to help other Tata Group enterprises with their computer needs.

TCS's early years were distinguished by their dedication to innovation and quality. TCS was a trailblazer in computerization in India, quickly growing its services to serve outside customers. The Central Electricity Authority of India's computerized payroll system was the company's first significant project, which laid the foundation for its eventual rise to become a key player in the worldwide IT industry.

Global Expansion and Diversification

TCS established itself as a major player in the market as the IT industry grew in popularity throughout the world. The business started its route of global expansion in the 1980s, making a name for itself in important markets including the US and Europe. Through this calculated action, TCS was able to expand its customer base and broaden the range of services it provides.

TCS's expansion was fueled by its capacity to change with the times and its commitment to providing value to customers. The organization adopted cutting-edge technology to remain ahead of market trends and customer expectations, including as mainframes, client-server architecture, and eventually the internet. TCS demonstrated its dedication to innovation through its R&D projects, which allowed it to stay at the forefront of technical developments.

Strategic Initiatives and Milestones

As a result of a number of noteworthy accomplishments throughout the years, TCS has cemented its leadership position in the global IT industry. The company's \$1 billion revenue milestone was surpassed in 2004, indicating its significant expansion and impact. TCS's success has been largely attributed to its strategic efforts, which include the creation of innovation laboratories and strategic collaborations.

It is notable that the corporation places a strong emphasis on corporate social responsibility (CSR). TCS has continuously participated in charitable endeavors, supporting environmental sustainability, healthcare, and education. Its dedication to the welfare of society is consistent with the Tata Group's overarching philosophy.

Digital Transformation and Modernization

TCS was essential to the global digital transformation of enterprises in the twenty-first century. The organization adopted innovative technologies like artificial intelligence, cloud computing, and data analytics to assist customers in navigating the intricacies of the digital era. Because of its proficiency with digital solutions, TCS has established itself as a reliable partner for businesses looking to update their processes and maintain their competitiveness in a market that is changing quickly.

The way the business responded to the COVID-19 outbreak demonstrated its emphasis on adaptability and creativity. TCS ensured business continuity for both itself and its clients by quickly adapting to remote work methods. This tenacity strengthened TCS's standing as a dependable and progressive partner throughout periods of worldwide adversity.

Global Impact and Clientele

TCS's clientele is evidence of its significance in the business and its global reach. The business provides services to customers in a number of industries, including manufacturing, retail, healthcare, banking, and financial services. Thanks to its client-focused strategy and commitment to providing value-driven solutions, TCS has established enduring partnerships with some of the top companies in the world.

TCS's work has an impact that goes beyond only business. The company has addressed urgent issues, promoted innovation, and advanced society through its digital activities. The projects undertaken by TCS cover a wide range of industries, from smart city projects that enhance urban living to healthcare solutions that improve patient care.

Future Outlook

TCS is still dedicated to advancing innovation, providing value to clients, and improving society as it looks to the future. TCS is ideally positioned to handle this shifting environment as the digital age continues to bring forth new opportunities and challenges. The company's emphasis on sustainability, agility, and emerging technologies paves the way for future expansion and impact in the international IT sector.

Conclusion

Tata Consultancy Services Ltd. has left a lasting impression on the history of the IT sector. TCS's journey from its modest beginnings as a part of Tata Sons to its current standing as a worldwide IT giant is evidence of its tenacity, inventiveness, and dedication to quality. The corporation is still a major force in defining the digital future and a shining example of success within the Tata Group, even as it continues to change.

1.7.5 WESTERN INDIA PALM REFINED OILS LTD.

Introduction

The amazing tale of Western India Palm Refined Oils Ltd. (WIPROL) takes place in the center of the dynamic western region of India, where tradition and modernity converge. Over the years, WIPROL which was established with the goal of revolutionizing the edible oils sector has come to be associated with excellence, creativity, and sustainability.

Inception and Early Years

WIPROL was founded in the early 1980s when Mr. Rajesh Verma, a visionary entrepreneur, recognized a potential in the palm oil sector. Motivated by the bountiful agricultural regions in western India, Verma founded WIPROL with the aim of providing customers with high-grade refined palm oils. Initially, the company prioritized on a strong supply chain, collaborating with nearby farmers, and deploying cutting-edge refining procedures.

Technological Advancements

The market for edible oils changed, and WIPROL's dedication to innovation did too. The business made significant investments in R&D and adopted cutting-edge technologies to improve the caliber of its output. By ensuring purity and nutritional content while reducing environmental effect through improved refining procedures, WIPROL earned recognition for its innovative approach.

Global Outreach and Quality Standards

WIPROL turned its attention to the international arena after establishing a strong base in the home market. With the help of international quality certificates, the company was able to export its goods to a global customer base. Since WIPROL is dedicated to upholding the highest standards of quality, it has gained a reputation as a reliable supplier on a global scale.

Towards a Sustainable Future

Sustainability is still at the centre of WIPROL's business strategy as it moves forward. To reduce its environmental impact, the corporation keeps looking into cutting-edge ideas like eco-friendly packaging and renewable energy sources. The initiatives of WIPROL are in line with the larger industry movement towards a more ethical and sustainable method of conducting business.

Conclusion

The success of Western India Palm Refined Oils Ltd. is evidence of the strength of fortitude, vision, and dedication to quality. WIPROL's path, from its modest origins to its current position as a major player in the edible oils market, embodies the spirit of innovation and advancement that characterizes the business environment in western India. The company is committed to its guiding values of quality, sustainability, and community impact even as it grows. WIPROL's story is not only a business tale; it is also a monument to the well-balanced fusion of history and modernity that characterizes the dynamic area it resides in.

1.7.6 MPHASIS LTD.

Introduction

Since its founding, Mphasis Ltd., a well-known worldwide supplier of IT solutions, has grown to become a significant force in the business services and technology sectors. Since its founding in 1992, the business has continuously shown that it is dedicated to innovation, client satisfaction, and operational excellence. Over the years, Mphasis has experienced tremendous change as it has adapted to the fast-paced IT sector and taken a key role in determining the direction of digital technology.

Founding Years

In 1992, Mr. Jerry Rao and Jeroen Tas established Mphasis as a joint venture between the U.S.-based technology infrastructure consulting firm MphasiS Corporation and the Indian giant BFL (BFL Software Limited). At first, the company concentrated on offering clients in the financial services sector software development services and solutions. Mphasis's ability to gain experience in capital markets, insurance, and banking was made possible by this strategic alignment with the financial services industry.

Digital Transformation and Innovation

Understanding how the IT sector was changing, Mphasis made digital transformation a cornerstone of its business plan. The business made significant investments in cutting-edge technologies like automation, block chain, machine learning, and artificial intelligence. This change was driven by a desire to remain on the cutting edge of technological innovation as much as strategic considerations.

Mphasis positioned itself as a reliable resource for customers trying to understand the intricacies of the digital world. The company's cutting-edge products and services were designed to boost client satisfaction, increase operational effectiveness, and stimulate business expansion for a wide range of customers.

Global Presence and Diverse Clientele

Mphasis increased its worldwide reach by setting up offices and delivery hubs in strategic locations across the globe. The company's ability to service a wide range of clients across industries was made possible by its presence in North America, Europe, Asia-Pacific, and the Middle East. Mphasis demonstrated its versatility and adaptability by serving clients in industries including manufacturing, retail, insurance, healthcare, banking and financial services, and manufacturing.

Commitment to Sustainability and Social Responsibility

Mphasis has shown a great dedication to sustainability and corporate social responsibility (CSR) in addition to its economic operations. The business started a number of initiatives focused on education, community development, and environmental preservation. Mphasis believes in fostering an environment at work where people from all backgrounds are valued, which is why it actively participates in programs to promote diversity and inclusion inside the company.

Recent Developments and Future Outlook

By the January 2022 knowledge cutoff date, Mphasis remained a significant player in the IT services sector. The organization is well-positioned to navigate the changing business and technological landscape thanks to its focus on innovation, digital transformation, and customer-centricity.

Mphasis had a bright future ahead of it, as it was well-positioned to benefit from new technology, strategic alliances, and a strong worldwide footprint. The continuous development of the IT sector, which is characterized by the growing significance of digital solutions and transformational technologies, offered Mphasis numerous chances to bolster its standing as a major participant in the market.

Conclusion

The development of Mphasis Ltd. from its inception to its present position as a worldwide supplier of IT solutions is indicative of a flexible and dynamic response to the rapidly evolving technological environment. The company's success has been largely attributed to its dedication to social responsibility, innovation, and strategic alliances. Mphasis is still a great illustration of how a progressive mindset can spur development and success in the competitive IT services industry even as it continues to change.

1.7.7 LARSEN & TOUBRO LTD.

Introduction

Mumbai, India is home to the prestigious global firm Larsen & Toubro Limited (L&T). Henning Holck-Larsen and Søren Kristian Toubro, two Danish engineers, founded the

firm in 1938. Since then, it has grown into a major player in the engineering, procurement, and construction (EPC) industry, with a diverse portfolio spanning multiple industries.

Founding Years

India's Larsen & Toubro had modest beginnings before to independence. Toubro and Holck-Larsen, the company's founders, intended to advance the industrialization of their country. At first, they concentrated on manufacturing, engineering, and building. Early on in the company's history, important infrastructure projects like power plants, bridges, and dams were built. This paved the way for L&T to play a significant role in India's development.

Global Expansion

As India embraced economic liberalization in the 1990s, Larsen & Toubro seized opportunities to expand globally. The company ventured into international markets, establishing a presence in the Middle East, Southeast Asia, and Africa. L&T's global footprint grew as it took on challenging projects in the fields of construction, power, and information technology. The company's ability to execute complex projects earned it a reputation as a reliable and innovative player on the international stage.

Innovation and Technological Advancements

L&T has always placed a high priority on innovation and technology development. To remain at the forefront of emerging technology, the organization makes significant investments in research and development. L&T's dedication to innovation has made it possible for the company to embark on challenging and ground-breaking initiatives, encouraging a culture of adaptation and constant development.

Challenges and Resilience

Like any big business, Larsen & Toubro has had its share of difficulties. The company's resiliency has been put to the test by global uncertainty, regulatory changes, and economic downturns. But L&T has managed to overcome obstacles by diversifying, innovating, and adapting, and as a result, it has grown stronger and more robust.

Corporate Governance and Leadership

In addition to its dedication to moral business conduct and openness, Larsen & Toubro has continued to place a high priority on corporate governance. The leadership of the organization has been instrumental in guiding L&T through changing market conditions. The organization has maintained continuity and stability because to the emphasis on succession planning and leadership development.

Future Outlook

According to the most recent data available, Larsen & Toubro is still a significant force in India's economy and a major driver of the development of the country's infrastructure. The organization is well-positioned for the opportunities and challenges of the future thanks to its strategic focus on innovation, technology, and sustainable practices.

Conclusion

The rise of Larsen & Toubro Limited from its humble origins in 1938 to its present position as a multinational corporation is evidence of its tenacity, inventiveness, and dedication to quality. The business has had a major influence on India's industrialization and infrastructural growth, and its capacity to change with the times suggests that it will continue to be successful in the years to come.

1.7.8 TATA ELXSI LTD.

Introduction

One example of India's strength in the international technology and design scene is Tata Elxsi Ltd. Tata Elxsi, a Tata Group company that was founded in 1989, has grown to become a major force in the design, technology services, and product engineering industries. The organization, which is dedicated to innovation, customer satisfaction, and social responsibility, has established a name for itself in a number of sectors, including broadcast, communications, healthcare, and the automobile industry.

Early Years and Foundation

The voyage of Tata Elxsi started in 1989 when it was established in Bangalore, India, under the name Tata Elxsi (formerly known as Elxsi). The company recognized the connection between design and technology and set out to bridge that gap from the

beginning. Its early years were characterized by an emphasis on research and development, which served as the basis for its subsequent undertakings.

Global Expansion

Tata Elxsi made major global advancements in the late 1990s and early 2000s. The organization extended its reach outside India, acquiring a foothold in significant global markets. Through this worldwide strategy, Tata Elxsi was able to access a variety of talent pools and technical ecosystems, in addition to growing its clientele.

Innovation and Technology Leadership

An essential factor in Tata Elxsi's success has been innovation. The business made significant investments in R&D, which promoted a culture of ongoing learning and adaptation. Its innovation centers developed into centers of excellence for investigating cutting-edge technologies, such as Internet of Things (IoT), machine learning, and artificial intelligence. Because of its commitment to staying on the cutting edge, Tata Elxsi has established itself as a leader in technology that can adapt to the changing needs of its customers.

Corporate Social Responsibility (CSR)

Tata Elxsi recognizes its role in promoting societal well-being and places a high priority on corporate social responsibility. With a focus on environmental sustainability, healthcare, and education, the corporation has launched a number of CSR initiatives. Tata Elxsi continues to demonstrate its commitment to becoming a socially conscious business organization by actively participating in community development activities.

Recent Developments

Tata Elxsi was still at the forefront of technology breakthroughs as of the most recent data available in 2022. The business actively participated in initiatives pertaining to digital transformation, smart cities, and 5G technologies. Tata Elxsi seemed ready for continued expansion and influence in the upcoming years, with a varied clientele and a full pipeline of projects.

Conclusion

Tata Elxsi's history from its founding to its current position as a major player in worldwide technology and design is evidence of its tenacity, flexibility, and dedication to

quality. The company's reputation as a pioneer in the fusion of design and technology is unwavering as it navigates the rapidly changing fields of innovation and technology. The development of Tata Elxsi is a reflection of both the company's success and the larger story of India's ascent in the international technology sector.

1.7.9 ORACLE CORPORATION LTD.

Introduction:

One of the biggest technological companies in the world, Oracle Corporation, has been instrumental in forming the digital environment since its creation. Founded in 1977 by Ed Oates, Bob Miner, and Larry Ellison, Oracle began as a modest start-up with the goal of developing a relational database management system (RDBMS). Today, it is a major worldwide provider of hardware, software, and cloud services.

Founding Years

Former Ampex Corporation employee Larry Ellison spotted a chance to create a relational database system in 1977, which is how the company's history began. He co-founded Software Development Laboratories (SDL), which subsequently evolved into Oracle Corporation, with Bob Miner and Ed Oates. Their goal was to develop an effective database system that would give companies a strong tool for information management and analysis.

Oracle began its career as a pioneer in the database management area in 1979 when it published its first product, the Oracle Database 2.0. Because the name "Oracle" implies insights and answers, it was chosen to represent the company's dedication to giving creative solutions.

Database Dominance

Oracle consolidated its dominance in the database industry during the 1980s. By concentrating on creating a relational database management system (RDBMS), the company made it possible for businesses to access and organize their data more effectively than they had in the past. Mission-critical applications for businesses throughout the world are powered by the Oracle Database, which has become the industry standard.

An important turning point in Oracle Corporation's development occurred when it went

public in 1986. Funds from the initial public offering (IPO) were used to support additional innovation and growth. Oracle's impact on the technology landscape grew as companies depended more and more on databases to handle their expanding amounts of data.

The corporation expanded beyond databases in the 1990s. Applications for supply chain management, customer relationship management (CRM), and enterprise resource planning (ERP) are now part of Oracle's varied product line. Oracle's portfolio was further enhanced by the acquisition of firms like PeopleSoft and Siebel Systems, which enabled it to offer end-to-end solutions for enterprises of all sizes.

Global Impact and Corporate Social Responsibility

The impact of Oracle Corporation goes well beyond technology. The business has continuously shown that it is dedicated to sustainability and corporate social responsibility (CSR). The business supports education and technology programs globally, nurturing the next generation of innovators and technologists, through programs like the Oracle Education Foundation and Oracle Academy.

Oracle's carbon footprint has decreased significantly in terms of environmental sustainability. The business has made investments in energy-efficient data centers, renewable energy projects, and efforts to reduce electronic waste.

Future Outlook

Oracle Corporation continues to be at the forefront of technical innovation as we look to the future. The company is well-positioned for future success because of its dedication to developing cloud technologies, embracing AI and machine learning, and meeting changing business needs.

Oracle has a broad impact on a variety of industries, including manufacturing, retail, healthcare, and finance. Oracle is probably going to be a major player in determining the direction of technology in the coming years as businesses all around the world continue their digital transformation path.

Conclusion

Oracle Corporation's history demonstrates its tenacity, flexibility, and dedication to expanding the realm of technological possibilities. Oracle's trajectory, from its modest origins as a database firm to its current position as a worldwide technology leader, demonstrates the industry's constant change as well as its capacity for innovation and

perseverance in the face of difficulties. Oracle will undoubtedly continue to have an influence on how the technology environment develops as we traverse the digital future.

1.7.10 MINDTREE LTD.

Introduction

Since its founding, Mindtree Ltd., a multinational provider of consultancy and services for information technology, has had a major impact on the development of the IT sector. Ten business experts launched Mindtree in August 1999, and since then, it has expanded into a global company offering clients all over the world cutting-edge technology solutions.

Founding Years

In Bangalore, India, Mindtree was established with the goal of becoming a business recognized for its creative solutions, client-focused methodology, and distinctive workplace culture. The founders' backgrounds and IT sector knowledge varied, and they included Ashok Soota, Subroto Bagchi, and Krishnakumar Natarajan. The name "Mindtree" was selected to represent the company's steadfast dedication to its clients' development.

When Mindtree first started out, its main goal was to become known as a trustworthy partner for companies looking for technology solutions. Application development, data warehousing, and infrastructure management were among the services offered by the company at first. It immediately became known for producing excellent work, drawing notice in a crowded market.

Global Presence and Strategic Alliances

For Mindtree, the 2010s were a time of tremendous growth and international expansion. The business established offices and delivery hubs throughout North America, Europe, and Asia-Pacific as part of its ongoing strategy to bolster its position in important regions. Mindtree was able to better serve clients by offering localized solutions with a global perspective because to its global footprint.

Because of Mindtree's dedication to quality and innovation, it has formed strategic partnerships with industry giants in technology including Salesforce, SAP, and Microsoft. The organization was able to remain ahead of technology improvements and provide a wider range of services thanks to these relationships. The acquisition of a controlling

stake in Mindtree by the Indian multinational conglomerate Larsen & Toubro (L&T) in 2019 was a significant event for the company.

Recent Developments

Mindtree maintained its independence while utilizing the synergies with its parent firm in the years after L&T was acquired. The synergy between Mindtree and L&T improved their ability to provide comprehensive solutions for a range of industries.

Mindtree gave corporate social responsibility and sustainability a lot of attention during this time. The business actively participated in campaigns pertaining to social welfare, environmental preservation, and moral corporate conduct. Clients and stakeholders found this commitment to be meaningful, which strengthened Mindtree's standing as an environmentally and socially concerned company.

With an emphasis on cutting-edge technologies like artificial intelligence, machine learning, and the Internet of Things, Mindtree's service offering has continued to develop. The company positioned itself as a strategic partner for organizations navigating the challenges of the digital era thanks to its expertise in cloud computing, cybersecurity, and digital transformation.

According to the most current data available, Mindtree is still a major player in the IT sector, advancing digital innovation and advancing technology. The organization has been able to sustain a strong presence in a competitive marketplace thanks to its adherence to its original values and flexibility in responding to market movements.

Conclusion

The history of Mindtree Ltd., from its inception to the present, is a tale of tenacity, inventiveness, and flexibility. Being a major participant in the worldwide IT sector, Mindtree is constantly reshaping the digital environment by offering clients game-changing solutions and advancing technological advancement.

1.8 SUMMARY

A company's decision about its capital structure can be defined as its selection of the debt and equity mix that will optimize its value or minimize its total cost of capital.

Creating and organizing a suitable capital structure is a difficult undertaking. It is dependent on several elements, including EBIT-EPS analysis, sales growth and stability, capital costs, the company's ability to generate cash flow, flexibility, etc.

Many theories of capital structure have been created, but not everyone believes that there is an ideal capital structure. Both the standard perspective and the Net Income approach contend that there is an ideal capital structure since it affects both the cost of capital and the firm's value. However, the capital structure is irrelevant and has no bearing on the firm's value or the cost of capital, according to the Net Operating Income methodology and the M&M Hypothesis.

Based on a few presumptions, Modigliani and Miller used the arbitrage process to support their claim that the capital structure and cost of capital are irrelevant. They did, however, eventually come to understand the significance of corporate taxation and acknowledge that the capital structure affects the firm's value and cost of capital.

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CHAPTER 2

LITERATURE REVIEW



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LITERATURE REVIEW

2.1 INTRODUCTION

A review of the literature is a critical examination and synthesis of previous studies and academic writings on a certain subject. It provides a framework for new study and acts as a basis for comprehending the present level of knowledge in a particular topic. It also helps to discover gaps in knowledge. We will discuss the goal, importance, and essential components of a literature review in this introduction.

A literature review's main goal is to assess the corpus of knowledge already available on a particular research topic. In order to obtain an overview of the state of knowledge at the moment, it entails analyzing and summarizing pertinent research, books, articles, and other materials. By doing this, scholars can lay the groundwork for their own work by identifying important topics, trends, and disputes within the area.

A literature review's ability to draw attention to any gaps or contradictions in the body of existing research is one of its most important features. For researchers, identifying these gaps is crucial since it aids in defining the parameters and areas of interest for their work. Furthermore, by addressing these gaps in their own study, scholars can make valuable contributions to the discipline by identifying areas of disputed or insufficient knowledge.

A literature review is important for reasons other than only helping to guide future research. In order to comprehend how knowledge in a given topic has changed throughout time, it also offers a historical background. Scholars can follow the evolution of theories, research methods, and important discoveries, which aids in placing their work in a larger conceptual context.

A well-executed literature review strengthens a research project's theoretical and conceptual underpinnings. Through the process of information synthesis, researchers are able to develop a thorough knowledge of the fundamental ideas and theories that define their discipline. Through this synthesis, they are able to construct a theoretical framework that guides their technique, research questions, and hypotheses.

A literature review helps choose the best research methodology in addition to guiding research design. To inform their own methodology, researchers might learn from the

mistakes and successes of earlier research projects. This strengthens their research's validity and dependability and promotes a feeling of continuity among academics.

A literature review's framework usually consists of grouping and classifying previous studies according to topics, approaches, or other pertinent factors. This organization makes it easier for readers to go through the abundance of data and comprehend how various studies relate to one another. A cohesive story that leads the reader through the most important discussions and research findings in the topic is vital for the literature review.

Researchers must critically assess the reliability, approach, and conclusions of each source as they begin their literature study. This critical examination makes sure that the review is a careful and perceptive synthesis rather than just a synopsis of the body of previous material. Scholars must to evaluate the merits and demerits of every investigation, recognizing possible partialities or deficiencies in the research approaches utilized.

To sum up, a literature review is an essential aspect of the research process since it offers a thorough summary of all the knowledge that has been discovered in a given topic. Through the identification of gaps, the synthesis of important concepts, and the provision of a historical context for understanding the evolution of ideas, it informs and shapes future study. By studying the literature, scholars build the foundation for future research in their discipline and add to the ongoing discussion within their academic community.

2.2 REVIEW OF LITERATURE

(Raiyani, 2020) India has led the world in science and technology for centuries, and its people's inquisitive minds are what keep India at the forefront of the information technology industry today. India is among the top exporters of these services, specializing in business process outsourcing (BPO) and information technology. Its contribution of the national GDP is estimated to be approximately 7.7%, with growth expected to reach 10% by 2025. Therefore, it becomes essential to understand the financial performance of the IT industry as it develops. This report examines the profitability and liquidity

performance over time of the top 10 Indian IT businesses to determine their financial success.¹

(Salunkhe, 2024) Organizational culture, individual characteristics, and work discipline at the company all affect how satisfied and productive an employee is. This study examines the relationship between these three variables and employee happiness in the setting of IT organizations. In information technology companies, job satisfaction is a major problem that contributes to a higher labour turnover rate. The report emphasizes how important it is for IT firms to comprehend the factors influencing employee satisfaction. Up until now, not much is known about the differences in job satisfaction among workers in the information technology field, which would improve knowledge in this specific field of expertise.²

(Satheeskumar, 2023) This study looks into how hiring and selection procedures in Chennai-based information technology (IT) companies have changed as a result of artificial intelligence (AI). Researchers like Manthena, Choudhary, Sharma, Malik, Hemalatha, Varaprada, Rajesh, and Soni support the strategic integration of AI as a useful tool in maximizing human resource management after reviewing pertinent literature. Principal Component Analysis (PCA) is used in the study to uncover subtle insights into how AI affects hiring and selection. When it comes to hiring, task automation and intelligent analysis are crucial because they highlight the beneficial effects of employee recommendations and data collection. Higher implications on internal mobility, work automation, and data-driven decision-making are revealed by selection processes. The consistent upward trend in all aspects highlights the beneficial functions of important factors and calls for the responsible use of AI to advance human resource management techniques.³

(Maestre, 2023) Technology, or information technology, is a tool for accomplishing strategic business goals. Nonetheless, a lot of Small and Medium-sized Enterprises

¹Raiyani, J. (n.d.). A Study on Financial Performance Analysis of Selected Information Technology (IT) Companies in India. <https://www.researchgate.net/publication/340548937>

²Singhal, D., & Salunkhe, H. A. (2024). An analysis of factors associated with employee satisfaction in information technology companies. *International Journal of Human Capital in Urban Management*, 9(1), 135–156. <https://doi.org/10.22034/IJHCUM.2024.01.10>

³Satheeskumar, L., Porselvi, T., & History, A. (n.d.). Impact Of Artificial Intelligence In Recruitment And Selection Practices In Information Technology (It) Companies In Chennai-Principal Component Analysis.

(SMEs) don't view IT as a critical field. This paper investigates how Colombian IT professionals see IT governance. The survey's design, data analysis, and findings are presented. The survey was built using the Governance of Enterprise IT framework. 151 IT experts who worked in 48 SMEs and 90 major enterprises responded to the poll, which was conducted in 2019 and 2020. WEKA and KNIME were used to analyze the data using segmentation, association, and classification methods.⁴

(Shidqi, 2023) Information technology is developing at a quick pace, and everyone wants to use it to support their activities, make their chores easier, and expedite their business operations. This includes corporations, institutions, and colleges. An enterprise organization must change to keep up with the latest developments in information technology. The centralized approach of managing IT services focuses on how customers view IT services in relation to a company's operations. Information technology created especially for users to handle service operations and handle corporate administrative data has been introduced by XYZ Company. The lifecycle phase known as "Service Operation" encompasses all of the daily tasks associated with IT service management.⁵

(Hendarmin, 2024) This study investigates the effects on business productivity of creating Accounting Information Systems (AIS) using state-of-the-art technology. We collected information by distributing surveys to businesses that have integrated cutting-edge technology into their AIS. The study's findings show that implementing artificial intelligence (AI) greatly improves businesses' operational effectiveness. Businesses that deploy block chain technology also see increases in customer satisfaction. Efficiency and improved decision-making are also positively impacted by user training and the size of the business. Throughout the conversation, we stress how crucial it is to keep up with the

⁴Trujillo-Lambert, Y., Osorio-Sanabria, M., Maestre-Gongora, G., & Astudillo, H. (2023). Information Technology Governance in Colombian Small and Medium Companies: An Exploratory Study Using Data Analysis. *Aibi, Revista de Investigacion Administracion e Ingenierias*, 11(1), 66–74.

<https://doi.org/10.15649/2346030X.3083>

⁵Shidqi, S. A. (2023). Analysis of Information Technology Service Management Using ITIL V3 Domain Service Operation at Company XYZ. *IJIIS: International Journal of Informatics and Information Systems*, 6(4), 159–168. <https://doi.org/10.47738/ijjis.v6i4.174>

latest technological advancements and engage in user training. We also recognize that implementation expenses may be prohibitive, especially for smaller businesses.⁶

(Bindu, 2023) One of the sectors in India with the quickest rate of growth is information technology. Information is now considered, along with land, labour, and capital, the fourth component of production due to advancements in information technology. As a result, information is now a significant and unique input in production. As a result, a fourth sector—information-related businesses—has evolved in addition to the three sector model of primary, secondary, and tertiary sectors. The field of information technology and information technology enabled services (IT-ITeS) is rapidly evolving, transforming Indian business standards in the process. Online services, software development, consulting, software management, and business process outsourcing (BPO) are all included in this industry. The IT sector is one that encompasses more than just software creation.⁷

(Rao, 2023) After coal and oil, the next major energy source is gaseous hydrocarbons. However, a number of gas types remain underutilized as a result of inadequate end-user technology. This paper discusses the challenges associated with the various types of gaseous hydrocarbon fuels that are available in India and the unconventional technologies needed to monetize them based on end-user concepts. The article provides a succinct trend analysis of the energy demand in the near future in comparison to the supply of traditional resources. Analyses of the gaseous hydrocarbon sources are conducted using readily available realistic point sources. End-user points are determined in relation to each source, and the right technology is found for use.⁸

(Pareek, 2023) The purpose of this article is to evaluate the level of software use in the farming industry and explore the potential applications of software in agricultural research. The assessment offers a thorough analysis of the ways in which digital technology can efficiently handle a range of agricultural-related tasks. It looks at how digital technology is used in agriculture today and what influences farmers to use these technologies. The report also examines the benefits and drawbacks of utilizing digital

⁶Hendarmin, R., & Sari, R. (2024). Development of the Latest Technology Based Accounting Information System to Increase Company Efficiency. 14(1), 1–8.

⁷AStudyonGrowthPerformanceofITIndustryinIndia-FullPaper. (n.d.).

⁸Rao, K. R. (2024). Non-conventional Technologies based on End-user concept for economic Gas utilization and Profit maximization. <https://www.researchgate.net/publication/376757793>

technology in agriculture and makes suggestions for encouraging farmers, legislators, and technology providers to adopt it. In the end, the analysis comes to the conclusion that adopting digital technology in agriculture has the potential to improve sustainability, cut costs, and raise production. Overview India is a significant global player in the agriculture industry.⁹

(Goswami, 2021) Industry 4.0 and Made-in-India: Technological Readiness of Certain Firms, Obstacles, and Socio-Technical Consequences Goal: Our focus in this research is multifaceted. The primary goal is to do a macro-level analysis of the distinctions between China's Made-in-China 2025, Germany's Industry 4.0, and India's Made-in-India. The second goal is to determine the current state of adoption of Industry 4.0 technologies by industry segment among the five major segments (prioritized by the Make-in-India initiative) represented by 10 Indian enterprises. Finding the main obstacles for each of these five industry categories is the third goal. Lastly, interventions that are socio-technical are also suggested in an effort to hasten the adoption of Industry 4.0 technology. Approach, Methodology, and Design: To accomplish the goals of the research, a mixed methodological approach is used.¹⁰

(Parthasarathy, 2000) Bangalore, the hub of India's quickly expanding software sector, is frequently likened to Silicon Valley. This dissertation investigates the foundation of the comparison through an analysis of Bangalore's software and telecommunications equipment businesses. It also provides answers to two queries. Why has India succeeded in the software industry, which is globally competitive, while it has failed in other IT sectors? What effects does the evolving nature of the developmental state have on how businesses organize their output and how different locations are positioned within the global division of labour? Although the state's inadequate skills are reflected in India's negligible part of global IT production, the country's developmental trajectory has

⁹Pareek, S., Khan, Z., & Kumar, R. (2023). Adoption and implementation of information technology in farming industry: A review Article · July 2023 CITATIONS 0 READS 62. <https://www.researchgate.net/publication/377698250>

¹⁰Goswami, M., & Daultani, Y. (2022). Make-in-India and Industry 4.0: technology readiness of select firms, barriers and socio-technical implications. *TQM Journal*, 34(6), 1485–1505. <https://doi.org/10.1108/TQM-06-2021-0179>

changed since the 1980s. Particularly in the IT sector, the state has extended its reach to private investment.¹¹

(Govindharaj, 2023) By 2047, India hopes to have developed into a developed country thanks to advances in technology and expanding infrastructure. To guarantee that every citizen benefits from the digital transition, digital infrastructure is being developed. Emerging technologies like 5G and AI are revolutionizing sectors and helping to assist the needy, while technology is being utilized to make the tax system faceless and to alleviate problems faced by taxpayers. India is investing in democracy, inclusiveness, the global community, and a cleaner, safer, and more sustainable Earth by setting 2047 as its target year for economic development.¹²

(Ganeshan, 2020) It is anticipated that the novel corona virus (COVID-19) will impact the majority of Indian companies, either directly or indirectly. Increased risk and economic uncertainty might have a big impact on financial reporting. Despite India's successful efforts to date to stop the virus's spread, the COVID-19 pandemic has already caused significant disruptions to daily life and the country's economy. One of the global centers for services enabled by information technology is India. Businesses in the service industry are probably going to be negatively impacted right away by the movement restrictions and extended lockdown implemented to contain the pandemic. Technology businesses have mobilized resources to report on the difficulties, allowing employees to carry out their contracts from home in a safe workspace.¹³

(Das, 2020) The purpose of this study is to assess how India's financial services sector is affected by the swift advancements in financial technologies. The application of financial technologies in the contemporary financial services industries has been the subject of a descriptive research. A thorough assessment of the most recent journals, newspaper articles, government websites, and periodicals has been conducted. We've talked about how financial technologies are affecting India's current financial system as well as the difficulties and risks regulators confront when trying to control new, disruptive technologies. We have also talked about the possible risks, difficulties, and opportunities

¹¹Globalization and agglomeration in newly industrializing countries: ... Parthasarathy, Balaji ProQuest Dissertations and Theses; 2000; ProQuest pg. n/a. (n.d.).

¹²Govindharaj, Y. (n.d.). EMERGING TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT-AN ASSESSMENT. <https://www.researchgate.net/publication/375961653>

¹³ COVID-19IMPACTOFINFORMATIONTECHNOLOGYINDUSTRYININDIA (3). (n.d.).

presented by emerging technology for the Indian mutual fund sector. In light of the review of the literature ¹⁴

(Solanki, 2017) Information technology (IT) is vital to company development since it stimulates the higher education sector, which in turn increases employment and economic growth. One significant area of the IT business is the software sector. For the country's economy to grow through the software industry, domestic software product creation is essential. Major universities are active in policies and initiative programs, R&D, and innovation for the expansion of the software sector under the "Digital India" and "Make in India" initiatives. The goal of the article is to draw attention to the vital role that major players including academic institutions, industry associations, STPI, private and public software companies, and technical research institutes play in the development of software goods and services.¹⁵

(Pasi, 2021) Objective this study aims to create a framework for the industry 4.0 (I4.0) innovation ecosystem by examining its fundamental elements and securing the cooperation of many stakeholders. Design, procedure, and strategy through a comprehensive evaluation of peer-reviewed journal articles, key viewpoints and their sub-components for the I4.0 innovation ecosystem framework are identified in this study work. Next, using a questionnaire-based research design, the I4.0 difficulties faced by Indian industry and students at HE institutions are investigated. Last but not least, the decision-making trial and evaluation laboratory approach is used to examine the significance of the detected viewpoints, their sub-components, and the causal relationships among components.¹⁶

¹⁴ Das, K. K., & Ali, S. (2020). The role of digital technologies on growth of mutual funds industry. *International Journal of Research in Business and Social Science* (2147- 4478), 9(2), 171–176. <https://doi.org/10.20525/ijrbs.v9i2.635>

¹⁵ Deepak Kumar Solanki & Kunal Sinha. (2017). Innovation and Development in Information Technology in India: Specific to Software Industry. *Journal of Technology Management for Growing Economies*, 8(2), 129–144. <https://doi.org/10.15415/jtmge.2017.82001>

¹⁶ Pasi, B. N., Mahajan, S. K., & Rane, S. B. (2022). Development of innovation ecosystem framework for successful adoption of industry 4.0 enabling technologies in Indian manufacturing industries. *Journal of Science and Technology Policy Management*, 13(1), 154–185. <https://doi.org/10.1108/JSTPM-10-2020-0148>

(Nandini, 2021) India is the most popular offshore location for IT companies worldwide. India is a special country nowadays, offering great reliability, plentiful quality, affordability, and most importantly, the application of cutting-edge IT sector technology. Technology has changed the way that people operate. Technology has led to an increasing number of tasks and assignments being automated. The typical IT worker frequently resembles a highly competent "independent expert" more than the typical worker in other industries. Digital technologies offer new empowered and self-determined working methods together with career opportunities. They also present issues connected to the workplace, such as technological redundancy, digitally enhanced restructuring and global job relocation, workforce fragmentation due to mobile and extremely flexible employment.¹⁷

(Bisht, 2021) The Indian industries hold great potential for implementing the Industry 4.0 concept. This study addresses strategies for Industry 4.0 implementation in MSMEs across multiple Indian sectors, along with a qualitative research approach. Experts from various MSMEs provided the researchers with data via questionnaires and in-person interviews. Using the snowball sampling approach, which assumes that various academic and governmental organizations will construct an apparatus for the efficient implementation of Industry 4.0 technologies, the difficulties and hurdles to its adoption in India have been analyzed. This paper discusses a technical framework for processing massive data in real-time utilizing the Knowledge Data Discovery (KDD) pipeline to facilitate rapid decision-making.¹⁸

(Raichurkar, 2015) Intelligent systems are pushing the boundaries of traditional fabrics and their design in the age of wearable computing. The seamless use of these technologies in daily activities is made possible by their integration with industrial technology textiles, furniture, accessories, and apparel to increase user comfort. In nations that produce and export textiles, investments in spinning and weaving machinery are rising quickly. The government will create the necessary policies to support the textile

¹⁷ Nandini, G., Khatri, B., & Kumar Patjoshi, P. (2021). IMPACT OF TECHNOLOGY ON INDUSTRIAL RELATIONS STUDY ON IT INDUSTRY. <https://docs.google.com/forms/d/e/1FAIpQLSf7-EeUuhvQQYYO58jjJ13->

¹⁸ Bisht, V., & Sridhar, V. G. (2021). Roadmap to Implementation of Industry 4.0 in Micro, Small & Medium Enterprises in India. *Journal of Physics: Conference Series*, 2115(1). <https://doi.org/10.1088/1742-6596/2115/1/012024>

industry's annual growth rate of 18%. The government will also make efforts to strengthen the current infrastructure and build new ones in order to address the labor force. The Indian government is working to boost productivity in order to boost textile export development.¹⁹

(Verma, 2023) An overview of the development of industries in the area formerly known as United Province—later renamed Uttar Pradesh—up to the present is provided in this abstract. Over time, the industrial development of the United Province, which is now known as Uttar Pradesh, has seen substantial change and diversification. Agriculture, textiles, handicrafts, and mining were the main industries in the region's predominately agrarian past. British colonial policies, which prioritized the exploitation of raw materials to sustain British businesses, had a significant impact on the industrial landscape prior to independence. Uttar Pradesh started to industrialize after gaining independence, aiming for economic expansion and self-sufficiency. During the initial stage, fundamental industries such as steel, textiles, and heavy machinery emerged.²⁰

(Sahu, 2022) In the mining business, innovation and automation are essential tools for boosting productivity and process efficiency, cutting costs, ensuring safe and sustainable mining, and addressing the growing social and environmental concerns of local populations. The mining industry has faced difficult operating conditions during the last few decades. Increased environmental and social consciousness, along with the need to overcome natural obstacles like declining ore grades, deeper and more complex deposits, and harder rock mass, have driven the industry to continuously improve its processes throughout the entire value chain. Numerous factors, like as environmental preservation, worker safety and productivity, and gender equality, can be impacted by new technologies in the mining industry.²¹

(Policy, 2023) This study examines the complex interplay between innovation and regulation in India's developing sectors. It looks at how regulatory frameworks affect the direction and speed of innovation as well as how creative activities affect the creation and

¹⁹ Raichurkar, P. (2015). Recent Trends and Developments in Textile Industry in India. <https://www.researchgate.net/publication/284027876>

²⁰ Verma, M. (2023). Evolution of Industries in United Province, India. <https://www.researchgate.net/publication/374617994>

²¹ Sahu, A. K., & Bhardwaj, A. (n.d.). Impact of New & Emerging Technologies on Mining Industry" "Impact of New & Emerging Technologies on Mining Industry."

adjustment of rules. In order to demonstrate how regulation and innovation interact, the paper uses case studies from a variety of new industries. It also offers insights into the potential and difficulties that arise from this dynamic for policymakers and industry. The research highlights the function of established industries as pillars for new sectors, drawing on the idea of technological innovation systems (TIS). It talks about how developing sectors can construct and grow their technical innovation systems with the help of resources and knowledge from established industries.²²

(Singh, 2022) The manufacturing sector fosters socioeconomic development by paving the way for it, which acts as an engine of expansion. According to the aforementioned viewpoint, a great deal of research has empirically demonstrated the manufacturing sector's beneficial contribution to social and economic growth. Limited research has been done, though, to look at the variables influencing India's manufacturing industry across a range of industries. As a result, the factors influencing the yearly turnover of Indian manufacturing companies were evaluated in this study. Financial data from 154 carefully chosen Indian manufacturing companies operating in seven distinct industries—automotive and auto component, construction, electronics, industrial equipment & machinery, pharmaceuticals, textiles and apparel—across nine Indian states were used in the aforementioned investigation.²³

(Narwal, 2012) Objective The current study aims to compare the performance of intellectual capital in the Indian textile and pharmaceutical industries. The study also looks into the relationship between market valuation, financial performance, and the efficiency of intellectual capital. Design, procedure, and strategy The CMIE database Prowess provided the data for an empirical investigation that was conducted. A sample of 102 textile companies and 105 pharmaceutical companies were used to determine VAIC. Panel data are analyzed using OLS regression models and correlation. Results The findings showed a favorable correlation between intellectual capital and profitability, but

²² REGULATION AND INNOVATION IN EMERGING INDUSTRIES Lex Scripta Magazine of Law and Policy LEX SCRIPTA MAGAZINE OF LAW AND POLICY. (2023). <https://www.researchgate.net/publication/374723791>

²³ Singh, A. K., & Kumar, S. (2022). Measuring the Factors Affecting Annual Turnover of the Firms: A Case Study of Selected Manufacturing Industries in India. *International Journal of Business Management and Finance Research*, 5(2), 33–45. <https://doi.org/10.53935/26415313.v5i2.211>

no meaningful association was found between intellectual capital and productivity or market valuation in either of the two industries.²⁴

(Ward, 2007) This study looks at information systems strategic planning (ISSP) from the subsidiaries' point of view within multinational corporations. Interviews with the business and IT managers of nine sizable multinational corporations based in the United States, Europe, and Japan were used for the research. Based on the study's findings, most of these organizations have centralized or are in the process of centralizing their IS planning. In many of these organizations, cost containment and achieving scale economies are the primary goals of IS planning. IT tends to take control of the planning process as centralization rises, making IS planning more tactical than strategic and controlled by IT infrastructure planning. The primary criterion utilized to assess the success of IS planning was project implementation.²⁵

(Taqi, 2016) When assessing their influence on the capital structure and financial performance of the companies, finance managers regard financing decisions to be among their most important responsibilities. Understanding the connection between a company's capital structure and financial performance has long been of interest and drawn researchers from throughout the world. Therefore, it would be accurate to state that the most important operational discipline of a corporation is its financial structure. It serves as a tool for finance that answers the question, "How do firms choose their capital structure?" A company's capital structure, which is determined by the makeup or arrangement of its obligations, has an impact on the value, performance, and conduct of the organization.²⁶

(Azhagaiah, 2011) Companies that want to finance their assets might do it with debt or equity capital. A combination of debt and equity is the best option. This study primarily examines the impact of capital structure (CS) on profitability (P) in Indian corporate businesses. The purpose of the study is to test the hypothesis regarding the extent to

²⁴ Pal, K., & Soriya, S. (2012). IC performance of Indian pharmaceutical and textile industry. *Journal of Intellectual Capital*, 13(1), 120–137. <https://doi.org/10.1108/14691931211196240>

²⁵ Mohdzain, M. B., & Ward, J. M. (2007). A study of subsidiaries' views of information systems strategic planning in multinational organisations. *Journal of Strategic Information Systems*, 16(4), 324–352. <https://doi.org/10.1016/j.jsis.2007.02.003>

²⁶ Taqi, M., & Ajmal, M. (2016). Impact of Capital Structure on Profitability of Selected Trading Companies of India. <https://www.researchgate.net/publication/314483216>

which CS influences businesses' revenue and the nature of the link between CS and profitability. After dividing the chosen companies into three groups according to two criteria—business revenue and asset size—this study is conducted. First, based on their annual income, businesses are categorized as low, medium, or high.²⁷

(Zahedi, 2016) This research aims to quantify the impact of three components of intellectual capital—human, structural, and relational—on the performance of Iranian auto companies. 180 specialists in one of the Iranian auto industries are given a questionnaire with 100 items covering intellectual capital and corporate performance on a Likert scale. The components of intellectual capital, namely human capital, relational capital, and structural capital, have corresponding Cronbach alphas of 0.82, 0.80, and 0.80. Furthermore, the corporate performance Cronbach alpha is 0.82. The study found a significant and positive correlation between intellectual capital and business performance using structural equation modeling.²⁸

(Bansal, 2015) 2014 Goals The current study uses comparative financial statistics to assess the financial results of Indian IT businesses, including TCS, Wipro, Infosys, and Tech Mahindra, for the months of April 2010 through March 2014. CMIE's Prowess database and company website provided the researcher with the audited financial statements of Indian IT companies for the five-year period (2010-2014) as part of the research approach. These financial statements provided the financial data required for financial ratios. Following a summary and processing step, the data was transformed into comparable financial ratios for use in the analysis. Financial ratios were classified into five categories in this study: market-based, leverage, profitability, liquidity, and solvency ratios.²⁹

(Peterson, 2016) Scholars studying science studies have demonstrated that lab workers' tacit knowledge combined with technological standardization allows lab workers to

²⁷ Azhagaiah, R., & Gavoury, C. (n.d.). The Impact of Capital Structure on Profitability with Special Reference to IT Industry in India.

²⁸ Zahedi, M. R., Hosnavi, R., & Kangogar, A. (2016). Linking intellectual capital and intellectual property to company performance. *Management Science Letters*, 753–758. <https://doi.org/10.5267/j.msl.2016.10.005>

²⁹ Bansal, R. (2010). A Comparative Analysis of the Financial Performances of Selected Indian IT Companies During.

manage natural complexity in the workplace. However, researchers that examine challenging research objects are not able to use these tactics. The author demonstrates how psychologists generate statistically significant results under difficult conditions by employing strategies that allow them to bridge the gap between an unpredictable research object and a professional culture that values methodological rigor. The author uses 16 months of ethnographic data from three laboratories that conduct experiments on infants and toddlers. Important considerations about the usefulness of restrictive evidentiary cultures in demanding research settings are brought up by this study.³⁰

³⁰ Peterson, D. (2016). The Baby Factory: Difficult Research Objects, Disciplinary Standards, and the Production of Statistical Significance. *Socius*, 2. <https://doi.org/10.1177/2378023115625071>

CHAPTER 3

RESEARCH METHODOLOGY



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RESEARCH METHODOLOGY

3.1 INTRODUCTION

Research methodology, which offers a methodical framework for the study and examination of phenomena, is an essential part of any scientific project. It acts as a road map for scholars, assisting them in conducting, designing, and interpreting research in a thorough and trustworthy manner. Research methodology is fundamentally concerned with the methods, procedures, and strategies used in data collection, analysis, and interpretation. Any academic activity must consider the technique used, as it has a substantial impact on the validity and dependability of the research findings.

Research technique, which offers an organized framework for the study and examination of phenomena, is essential to every scientific endeavour. It acts as a guide for scholars, assisting them in organizing, conducting, and analyzing research in a thorough and dependable manner. Research methodology is centered on the techniques, procedures, and approaches used in data collection, analysis, and interpretation. Any academic endeavour must consider the methodology used, since it has a substantial impact on the validity and reliability of the study findings.

A key component of research methodology is data gathering techniques, where researchers can select between qualitative, quantitative, or a combination of both methodologies. While quantitative approaches, like surveys and experiments, provide numerical data for statistical analysis, qualitative methods, like focus groups, observations, and interviews, dive into the richness and depth of experiences. The type of research topic and the level of comprehension desired will determine which of these approaches is best.

An additional crucial component of research methodology is sampling strategies. To guarantee that the results of their research can be applied to a wider population, researchers must take great care when choosing a representative sample. The three types of sampling techniques stratified, convenience, and random each has advantages and disadvantages. In order to get relevant results from data analysis, statistical tools and procedures must be used. An important step in turning raw data into insightful knowledge is the analytical phase, which can be accomplished through the use of descriptive statistics to summarize data or inferential statistics to draw predictions and conclusions.

Finally, research technique must take ethics very seriously. Informed consent must be obtained, participant welfare must be guaranteed, and sensitive data must be kept private, all in accordance with ethical standards. To sum up, research technique is the foundation of scientific investigation since it offers an organized and methodical way to examine issues and concerns. From problem conceptualization to data analysis, it leads researchers through every step of the investigation, guaranteeing the quality and dependability of the results. A strong technique is necessary to progress the field's understanding and add to the corpus of academic literature. The capital structure refers to the sources of funding that a business employs to support its operations, assets, and planned expansion through debt, stock, and securities. Investment decisions and financial decisions are closely related. And to determine the firm's capital structure, which helps to maximize both the market value of the shares and the firm's worth. A company's total risk and cost of capital are directly influenced by its capital structure.

3.2 MEANING OF CAPITAL STRUCTURE

There are two primary kinds of funding accessible to each business: debt and equity. The sources of funding a company has used to meet its capital requirements are collectively referred to as its capital structure. In essence, capital structure is a combination of several funding sources. These sources include debt funds, including debentures, equity share capital, retained earnings, and preference share capital.

3.3 SIGNIFICANCE OF CAPITAL STRUCTURE

A capital structure decision is an extremely important financial one for the company because it directly impacts the growth rate, credit status, share prices, and overall worth of the organization. After determining the enterprise's funding requirements, the finance manager must determine the capitalization rate in a way that minimizes funding costs and maximizes profit without putting the company at danger.

A finance manager's main goal when making decisions on capital structure is to figure out what kind of financing is best for his company. Any mistake in this regard could endanger the company's financial stability and plunge it into a serious financial catastrophe. Consequently, a capital structure choice is made each time money needs to be raised to support investments.

An investigation of the current capital structure and the variables influencing it will be necessary for this decision. Its debt-to-equity ratio is impacted by every new financial choice.

The debt-to-equity ratio, in turn, influences risk and shareholder earnings, which in turn influences the company's market value and cost of capital. The owner's claims are impacted by the company's decision to distribute or withhold earnings. Holding onto earnings improves the equity position of shareholders.

3.4 TITLE OF STUDY

The study of title is as follows:

“A COMPREHENSIVE ANALYSIS OF CAPITAL STRUCTURE OF SELECTED IT INDUSTRIES OF INDIA”

3.5 OBJECTIVE OF STUDY

- (1) To check Company's ability to pay short-term obligations or those due within a year.
- (2) To measure the ability of a business to pay its short-term liabilities by having assets that are readily convertible into cash.
- (3) To check company's profitability and capital efficiency.
- (4) To know dividing net operating profit or earnings before interest and taxes, by capital employed.
- (5) To check how profitable a company is in relation to its total assets.

3.6 HYPOTHESIS OF THE STUDY

- **Null Hypothesis (H0)**

"There is no significant difference in the company's ability to pay short-term obligations or those due within a year compared to a specified benchmark or industry standard."

- **Alternative Hypothesis (H1)**

"The company's ability to pay short-term obligations or those due within a year is significantly different from a specified benchmark or industry standard."

- **Null Hypothesis (H0)**

"There is no significant difference in the ability of the business to pay its short-term liabilities when comparing the proportion of readily convertible assets to short-term liabilities."

Alternative Hypothesis (H1)

"The ability of the business to pay its short-term liabilities is significantly influenced by the proportion of readily convertible assets, indicating a positive correlation between the liquidity of assets and the ability to meet short-term obligations."

- **Null Hypothesis (H0)**

"There is no significant difference in the company's profitability and capital efficiency compared to the industry average."

Alternative Hypothesis (H1)

"The company's profitability and capital efficiency differ significantly from the industry average."

- **Null Hypothesis (H0)**

There is no significant difference in the ratio of net operating profit (earnings before interest and taxes) to capital employed.

Alternative Hypothesis (H1)

There is a significant difference in the ratio of net operating profit (earnings before interest and taxes) to capital employed

- **Null hypothesis (H0)**

There is no significant difference in profitability between companies in relation to their total assets.

Alternative hypothesis (H1)

There is a significant difference in profitability between companies in relation to their total assets.

3.7 SAMPLE UNIT

SR.	IT companies of India
1	INFOSYS
2	TECH MAHINDRA
3	HINDUSTAN COMPUTER LTD.
4	TATA CONSULTANCY SERVICES LTD.
5	WESTERN INDIA PALM REFINOILS LTD.
6	MPHASIS LTD.
7	LARSEN & TOUBRO LTD.
8	TATA ELXSI LTD.
9	ORACLE CORPORATION LTD.
10	MINDTREE LTD.

3.8 SCOPE OF THE STUDY

It is not possible to apply the study's research conclusions in every situation. At that point, understanding the study's scope becomes essential. The experiment was carried out in the Indian region by the researcher. The current investigation was conducted, namely specifically for petroleum corporations. The current investigation was conducted from 2018-19 to 2022-23. This study was conducted on four Indian petroleum corporations. The study's results should be interpreted in light of its limitations, which include sample size, sampling methodology, applicable laws, and study period. Publicly released information, such as that found in the annual report, is regarded as accurate regardless of whether the business actually follows it or not.

3.9 SAMPLE SIZE

As many researcher wish to collect all required data and information about research, I selected to 10 IT industries of India to analysis the data for meaningful conclusion.

3.10 SAMPLE SELECTION

The industries listed below provide images of India's sector that were collected for the study. For a period of five years, the study's scope was restricted to these ten companies. In force from 2018–19 to 2022–2023.

- (1) Infosys
- (2) Tech Mahindra
- (3) Hcl
- (4) Tcs
- (5) Wipro
- (6) Mphasis
- (7) Larsen & toubro
- (8) Tata elxsi
- (9) Oracle
- (10) Mindtree

3.11 POPULATION OF THE STUDY

Population of this study is selected IT industries of India

3.12 PERIOD OF THE STUDY

The investigation was conducted between the annual statement of selected IT industries for a period of 5 years from 2018–2019 and 2022-23.

3.13 DATA COLLECTION

The study's data is gathered from the following secondary sources: The pertinent data for this is gathered from a number of sources, including websites, capital line software, and corporate annual reports. Numerous papers that have been published in business publications and other periodicals provide support for it. Numerous studies have been recommended by M.Phil. And Ph.D.candidates. Of different universities. The reference books were recommended by different university libraries. Therefore, a variety of sources have been explored to gather pertinent data. There is a lack of primary data.

3.14 LIMITATION OF THE STUDY

The following are the study's shortcomings in terms of research.

1. The research study's secondary data were gathered from websites, yearly reports, and other published reports; as a result, the conclusions will rely on solely on how accurate these data are.
2. There are various ways to gauge profitability, efficacy, and efficiency.
3. The ratio analysis used in this study has limitations of its own, which also apply to this investigation.
4. The concept of historical cost is typically used in the preparation of financial statements. They don't represent values based on present costs. Financial analysis conducted on these financial statements or accounting data would therefore fail to capture the implications of shifting pricing levels over time.
5. Facts that are not monetary in nature, such as employee productivity or the management's standing and reputation, are not represented in financial analysis.
6. The study's time frame is just five years long, from 2018–19 to 2022–2023
7. The petroleum sector is the sole business covered by the study.
8. The research is limited to four representative companies.

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CHAPTER 4

DATA ANALYSIS



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DATA ANALYSIS

4.1 INTRODUCTION

Analyzing data is an essential process that includes examining, purifying, converting, and modeling data in order to find important information, make judgments, and assist in making decisions. Organizations in a variety of industries rely on data analysis in today's data-driven world in order to obtain insights, spot trends, and make wise decisions. This introduction will cover the importance of data analysis, its uses, and the basic methods that are required.

The capacity to get valuable insights from the vast volumes of data generated every second in the big data era has turned into a competitive advantage. Enterprises employ data analysis techniques to comprehend consumer behavior, enhance operational efficiency, and formulate winning tactics. Researchers use it to find new patterns and trends, and governments use it to make well-informed policy decisions. Essentially, data analysis enables firms to convert unprocessed data into meaningful insights.

Data gathering is the initial stage of data analysis. This entails compiling data from a range of sources, including sensors, surveys, and transaction records. The gathered information could be saved in unstructured files like text or photos or organized files like databases or spreadsheets. Following data collection, data preprocessing is the following stage, during which errors, missing values, and inconsistencies are fixed. By ensuring that the data is fit for analysis through cleaning and transformation, the accuracy and dependability of the outcomes are increased.

A vast array of strategies and tactics each suited to particular data kinds and goals, are included in data analysis. For instance, descriptive statistics, which include metrics like mean, median, and standard deviation, give an overview of the key features of a dataset. Conversely, inferential statistics enable analysts to draw conclusions or forecasts about a population from a sample of data. As a branch of data analysis, machine learning entails creating algorithms that let computers recognize patterns and decide what to forecast or do without explicit programming. This covers methods such as classification, clustering, and regression analysis. Machine learning is becoming more and more important in data analysis as technology develops, enabling more intricate and precise forecasts.

An additional important component of data analysis is data visualization. Charts and graphs are examples of visual representations that make complex information easier to understand and more approachable. Finding patterns, trends, and outliers in raw data that can be missed is made easier with the use of visualization. Meaningful visualizations can be made with tools like Tableau, Power BI, or Python frameworks like Matplotlib and Seaborn.

Dealing with big data, which is defined by the volume, velocity, and variety of information, is one of the difficulties in data analysis. Large datasets are handled effectively by using advanced analytics techniques like distributed computing and parallel processing. Concerns about privacy and data security are also becoming more and more prevalent, which is forcing businesses to follow legal requirements and implement moral policies in order to safeguard confidential data. To sum up, data analysis is a vital and dynamic process that enables businesses to fully utilize the potential of data for well-informed decision-making. Proficiency in data analysis and interpretation is essential for success in any field, be it business, government, or research. Data analysis will surely become increasingly important as technology develops and shapes enterprises and societies in the future.

The goal of this study is to demonstrate how short-term assets support profitability and liquidity. The ability of the company to increase its future cash flows to meet any unforeseen needs is referred to as liquidity, whereas the efficient use of a company's whole asset base, which includes its present assets, determines its profitability.

Profitability and liquidity are always inversely related. The goal of profitability is to maximize the firm's returns, which can be achieved by investing little in short-term or low-liquidity assets. Liquidity, on the other hand, seeks to meet present obligations and maintain the company in a comfortable position. Profitability therefore influences liquidity, which in turn tends to dilute returns by tying up capital in short-term assets needlessly. To put it simply, profitability will decrease with increased liquidity and vice versa.

4.2 MEANING OF LIQUIDITY

The ease with which an asset or security can be bought or sold in the market without significantly affecting its price is known as liquidity, and it is a key concept in finance. It is an essential component of financial markets that affects the effectiveness and consistency of trading activity. Because liquidity allows investors to enter or exit positions at any moment, it is crucial to the efficient operation of financial systems.

The market's willingness to accommodate both buyers and sellers is the main factor influencing liquidity. In contrast to low liquidity, which indicates a market with fewer players and makes it difficult to acquire or sell assets without altering their prices, high liquidity denotes a healthy and busy market where assets may be traded easily. The liquidity of a market or asset is determined by a number of factors, all of which traders, investors, and policymakers must comprehend.

A key factor influencing liquidity is market depth, or the quantity of buy and sell orders at different price points. With many orders at various prices in a deep market, there are plenty of trading possibilities without noticeable price swings. However, when trades are performed, a shallow market lacks depth and is therefore more prone to significant price movements.

Bid-ask spreads are another important aspect affecting liquidity. The offer price is the lowest amount a seller is ready to accept for a sale, and the bid price is the maximum amount a buyer is willing to pay for an item. The bid-ask spread is the difference between these two prices. Because there is less difference between the buying and selling prices, narrow spreads signify strong liquidity because it is more economical for traders to enter and exit positions.

Liquidity is largely provided by market participants like market makers and institutional investors. Market makers guarantee that there is always counterparty available for a trade, which facilitates trading by continuously quoting bid and ask prices. Institutional investors facilitate the purchasing and selling of huge blocks of securities, hence contributing to liquidity. However, these players might pull out when the market is stressed or unsure, which would reduce liquidity.

The idea of asset liquidity as opposed to market liquidity is essential to comprehending liquidity. Market liquidity is the total ability to trade on a larger market, whereas asset liquidity is the ease with which a particular item can be purchased or sold. Although individual assets can display different levels of liquidity within the same market, assets in

a liquid market are more likely to be liquid themselves. For the financial markets and the economy as a whole to function, market liquidity is essential. It lowers the possibility of market manipulation, guarantees investors can complete trades quickly, and permits efficient price discovery. Liquidity, however, is dynamic and subject to shift in response to events in the economy, changes in regulations, and market conditions.

To sum up, liquidity plays a critical role in financial markets by affecting how simple it is to buy or sell assets. To successfully traverse the complexity of financial markets, investors and market players must have a solid understanding of the variables that affect liquidity, such as market depth, bid-ask spreads, and the existence of other market participants. Sustaining a healthy level of liquidity is essential to the overall health of the economy by boosting investor confidence and ensuring the stability and effectiveness of financial systems.

The following liquidity ratios are used to evaluate the liquidity.

- Current Ratio
- Quick Ratio

4.2.1 CURRENT RATIO

A financial indicator called the current ratio assesses how well a business can use its short-term assets to pay off its short-term liabilities. This ratio, known as the liquidity ratio, sheds light on a company's ability to pay its debts immediately and its short-term financial stability. The current ratio is a number that is computed by dividing current assets by current liabilities.

The formula for the current ratio is:

$$\text{Current ratio} = \frac{\text{current asset}}{\text{current liability}} \times 100$$

Cash, accounts receivable, inventory, and other assets that are anticipated to be spent down or converted into cash within a year are all considered current assets. Current liabilities, on the other hand, are debts and other short-term obligations that have a one-year maturity date, such accounts payable.

A corporation is said to be well-positioned to meet its short-term obligations if its current ratio is greater than 1, which shows that it has more current assets than current liabilities.

Ratios less than one could be a sign of possible liquidity problems and suggest that the business might find it difficult to pay its short-term debts.

While a greater current ratio is generally regarded as advantageous, an extremely high ratio may indicate that a business is not making the most of its resources and that it should be investing in more profitable ventures. On the other hand, a low current ratio could be a sign of unstable finances or an inability to pay for urgent responsibilities.

Context and the industry a company operates in are important factors to take into account when interpreting the current ratio. Retail and other companies with quick inventory turnover could have lower current ratios than manufacturing or other industries with longer production cycles. Consequently, for a more realistic evaluation, a company's current ratio must be compared to industry benchmarks.

The usefulness of the current ratio goes beyond evaluating immediate liquidity. It is used by creditors and investors to assess the overall financial health of a company. Trends in a company's financial success might be revealed by a current ratio that steadily improves or declines over time. A decreasing ratio, for instance, can point to inefficiencies, inadequate working capital management, or a rise in short-term liabilities.

The existing ratio is not without its restrictions, though. Because it excludes elements like the nature of current liabilities, the timing of cash flows, and the quality of assets, it cannot give a full picture of a company's financial situation. Furthermore, it makes the assumption that all assets can be sold at their book prices, which may not always be the case in actual situations. Financial analysts frequently utilize alternative liquidity ratios, such as the quick ratio, which separates inventory from current assets and offers a more cautious assessment of a company's capacity to fulfill short-term obligations, to supplement the current ratio.

To sum up, the current ratio is a useful instrument for evaluating the short-term liquidity and financial health of a business. Its computation and interpretation necessitate knowledge of the industry, past performance, and other financial parameters of a company. Although it offers a quick glance into a company's financial situation, a more thorough study should be achieved by combining it with other ratios and financial indicators.

TABLE 4.1 CURRENT RATIO (IN PERCENTAGE)

Company name	2018-19	2019-20	2020-21	2021-22	2022-23	AVG
Infosys	18.63	18.32	19.33	18.2	16.42	18.18
Tech Mahindra	12.53	10.58	11.49	12.6	8.85	11.21
Hindustan computers ltd.	16.74	15.64	14.81	15.78	14.63	15.52
Tata consultancy services ltd.	21.54	20.67	19.83	20.05	18.76	20.17
Western India palm refined oils ltd.	15.28	15.97	17.52	15.41	12.56	15.348
Mphasis ltd.	13.72	13.39	12.51	11.96	11.87	12.69
Larsen & turbo ltd.	7.24	7.16	3.43	6.57	6.88	6.256
Tata elxsi ltd.	93.66	15.9	20.15	22.24	24.01	35.192
Oracle corporation ltd.	2.7	6.49	8.11	9.93	6.75	6.796
Mindtree ltd.	10.73	8.12	13.93	14.66	13.31	12.15

Interpretation

- 1. Infosys:** A gauge of Infosys's immediate financial health, the current ratio, has fluctuated recently. With a current ratio of 18.63 in 2019, there had ample capacity to meet short-term obligations. It declined little to 18.32 in 2020 but held steady. Remarkably, there was a rise to 19.33 in 2021, indicating a better capacity to fulfill short-term financial responsibilities. The current ratio, however, fell to 18.2 by 2022 and then to 16.42 in 2023, indicating that it could be difficult to pay short-term obligations. Throughout these years, the current ratio has averaged 18.18. Infosys often maintains a high current ratio, indicating its capacity to comfortably cover short-term loans, despite the volatility that may cause anxiety. To comprehend the company's changing financial soundness, stakeholders and investors should keep a close eye on upcoming financial reports.
- 2. Tech Mahindra:** An important financial indicator of Tech Mahindra's short-term liquidity and ability to pay down short-term commitments with assets is the company's current ratio. With a solid current ratio of 12.53 in 2019, the company demonstrated a strong ability to cover short-term obligations. But in 2020, it dropped to 10.58, which would have indicated a brief liquidity issue. The ratio increased marginally to 11.49 in 2021 but sharply to 12.6 in 2022, indicating better liquidity. The current ratio unexpectedly fell to 8.85 in 2023, thereby raising questions about the company's short-term financial stability. The current ratio was

11.21 on average during the course of the five years, indicating general stability but some swings. It is imperative for investors and stakeholders to closely watch these variances in order to evaluate the company's financial resilience and its ability to manage short-term obligations.

3. Computers ltd: Over the previous five years, Hindustan Computers Ltd. (HCL) has seen a trend in its current ratio. A financial indicator called the current ratio assesses how well a business can use its short-term assets to pay off its short-term liabilities. With a current ratio of 16.74 in 2019, HCL demonstrated a solid ability to fulfill its short-term obligations. The current ratio did, however, drop to 15.64 in 2020, indicating a minor decline in liquidity. The trend persisted in 2021, when the current ratio dropped even lower to 14.81, indicating possible short-term liquidity issues. A minor improvement was observed in 2022 when the current ratio rose to 15.78. It did, however, drop to 14.63 in 2023, indicating further variations in the company's financial position.

4. Tata consultancy services ltd: Over the last five years, Tata Consultancy Services Ltd. current ratio—which gauges the company's capacity to pay short-term obligations with short-term assets—has exhibited an erratic pattern. The current ratio in 2019 was 21.54, which demonstrated a high capacity to fulfill immediate obligations. But by 2023, the ratio had dropped to 18.76, indicating that liquidity may have declined. Throughout these five years, the current ratio has averaged 20.17. Even though this average is currently quite high, the tendency toward declines raises questions about the company's immediate financial stability. Stakeholders and investors should keep a close eye on TCS's liquidity situation because a dropping current ratio may be a sign of difficulties paying short-term debts. To fully comprehend TCS's financial performance and make wise decisions, it is imperative to examine various financial metrics and take outside influences into account.

5. Western India palm refined oils ltd: The current ratio of Western India Palm Refined Oils Ltd. Indicates how well-equipped the company is to meet short-term obligations. With a current ratio of 15.28 in 2019, there was plenty of short-term liquidity. It rose to 15.97 in 2020 and then to 17.52 in 2021, indicating a rising trend. But the present ratio fell to 15.41 in 2022, indicating a minor reduction. The biggest shift was in 2023, when the ratio fell to 1.56, which should

be reason for alarm. Over a five-year period, the average current ratio is 15.348; this indicates general stability. It's crucial to remember that a high current ratio often denotes sound short-term financial standing, whilst a low ratio could point to possible liquidity problems. In order to keep enough assets to satisfy their short-term responsibilities, companies usually strive for balance. Analyzing current ratio developments aids in determining a company's capacity to pay short-term debt.

6. Mphasis: Over time, there has been a modest decline in the current ratio of Mphasis, a financial statistic that shows a company's capacity to cover its short-term commitments with its short-term assets. The current ratio in 2019 was 13.72, which demonstrated a high capacity to fulfill immediate obligations. But it dropped to 13.39 in 2020 and then to 12.51 in 2021. With a current ratio of 11.96 in 2022, the trend persisted; in 2023, it somewhat declined to 11.87. During this time, Mphasis's current ratio averaged 12.69. When compared to short-term assets, a dropping current ratio can indicate possible difficulties in managing short-term obligations. A company's financial stability depends on having a good current ratio, thus stakeholders must keep an eye on this trend. To obtain a thorough knowledge of Mphasis' financial health, additional analysis and evaluation of other financial variables are advised.

7. Larsen & toubro ltd: Over the previous five years, Larsen & Toubro's current ratio—a gauge of its short-term liquidity—changed. With a current ratio of 7.24 in 2019, there was ample capacity to meet short-term obligations. It did, however, somewhat decline to 7.16 in 2020. The current ratio experienced a more notable decline in 2021, dropping to 3.43, which would have indicated a reduction in the company's liquidity. In 2022, the trend reversible, the current ratio rising to 6.57, indicates enhanced liquidity. In 2023, this upward trend persisted and reached 6.88. Over the course of these five years, the average current ratio was 6.256, which suggests a fairly sound liquidity position. It is important to remember that a current ratio greater than one indicates that the business has enough current assets to pay for its short-term liabilities. A declining ratio can indicate that the company's short-term debt management and financial stability need more examination.

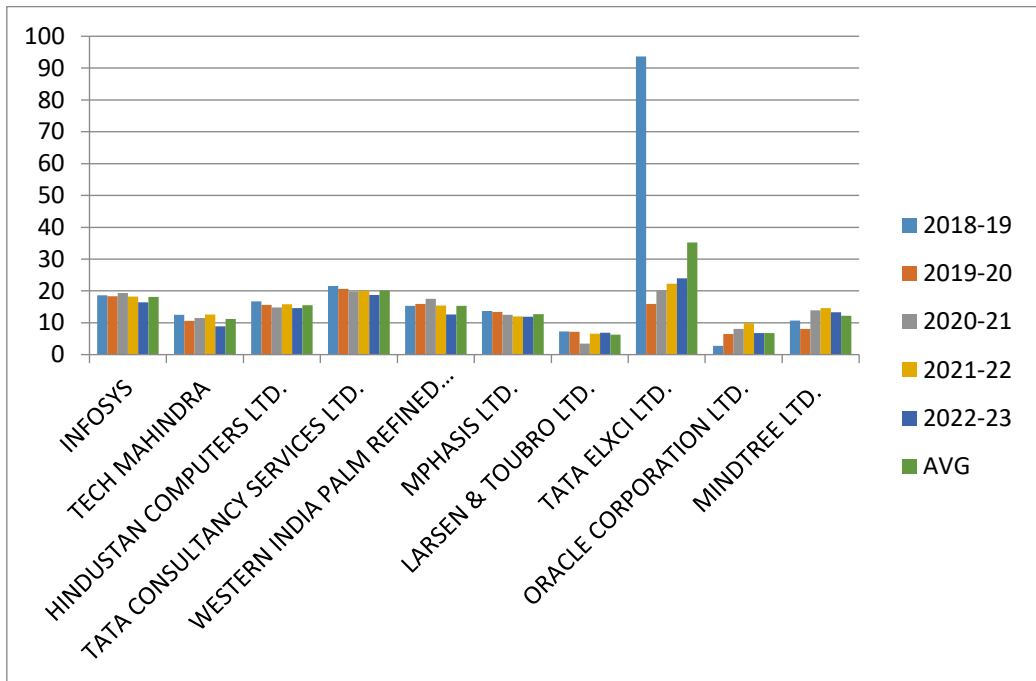
8. Tata elxsi ltd: The current ratio of Tata Elxsi indicates how well it can use its current assets to pay for short-term liabilities. At 93.66 in 2019, the company's

current ratio indicated that it has sufficient current assets to meet its short-term liabilities. But the ratio fell to 15.9 in 2020, suggesting that liquidity may have decreased. It then became better in 2021, rising to 20.15, and then got much better in 2022 and 2023, rising to 22.24 and 24.01, respectively. The company's short-term liquidity position appears to be trending positively, as seen by the average current ratio of 35.192 throughout these years. It suggests that Tata Elxsi typically have sufficient current assets to cover its immediate liabilities. The current ratio is a useful tool for analysts and investors to evaluate a company's financial health. Tata Elxsi's current ratio is trending upward, which is generally a good indicator. However, for a thorough examination of the business's overall performance, other financial measures must be taken into account.

9. Oracle corporation ltd: Over time, Oracle Corporation Ltd. current ratio which gauges its short-term liquidity has experienced variations. The company's 2019 current ratio was 2.7, meaning that for every \$1 in current liabilities; it had \$2.7 in current assets. The ratio grew to 6.49 in 2020 and then to 8.11 in 2021 and 9.93 in 2022. These increases were substantial. But the current ratio fell to 6.75 in 2023. Over these five years, Oracle Corporation Ltd. Consistently kept its current ratio at roughly 6.796. This shows a high ability to use present assets to pay short-term obligations. To determine the causes of these variations, it's critical to examine the company's financial accounts and the situation of the market. Better short-term financial health is typically indicated by a larger current ratio, but possible liquidity issues may be indicated by a lower ratio.

10.Mindtree ltd: The current ratio of Mindtree Ltd. Is an indicator of its short-term liquidity and shows how much of its current assets can be used to pay down its short-term commitments. With a current ratio of 10.73 in 2019, the company demonstrated a high ability to meet short-term obligations. The ratio dropped to 8.12 in 2020, though, which raised the possibility of a liquidity issue. With a current ratio of 13.93 in 2021, 14.66 in 2022, and 13.31 in 2023, the ensuing years experienced improvements. Throughout this time, the average current ratio was 12.15, showing generally strong liquidity. In general, a greater current ratio is regarded as positive and indicates improved short-term financial health. A number of variables, including shifts in the ratio of assets to liabilities, shifts in the state of the economy, or tactical choices, could have an impact on Mindtree Ltd. current

ratio swings. To evaluate the company's financial health and capacity to fulfill its immediate responsibilities, stakeholders and investors should keep a close eye on these ratios.



HYPOTHESIS

HO: There is no significance difference in current ratio of the different IT companies during the study period

H1: There is significance difference in current ratio of the different IT companies during the study period

TABLE 4.2 ANOVA TEST

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	453.4333	4	113.3583	0.724826	0.579611	2.578739
Within Groups	7037.719	45	156.3938			
Total	7491.153	49				

The “F” test one way ANOVA may be identified from the above table, which shows that the -f- critical value is 0.72 and the f-calculated value is 2.57. There is no significant difference in the current ratio of the IT companies over the study period; hence the null hypothesis will be accepted.

4.2.2 QUICK RATIO

A financial measure that evaluates a company’s short-term liquidity and capacity to satisfy its immediate financial obligations is called the quick ratio, sometimes referred to as the acid-test ratio. Since inventory is not included in current assets, it is a stricter metric than the current ratio. One can compute the quick ratio by dividing the quick assets of a business by its current liabilities. Cash, marketable securities, and accounts receivable are examples of quick assets. Since they may be swiftly turned into cash, these are seen as being more liquid than inventory. The quick ratio’s formula is as follows:

$$\text{Quick ratio: } \frac{\text{quick asset}}{\text{current liabilities}} \times 100$$

A company's good liquidity situation is shown by a quick ratio above 1, which shows that it has sufficient quick assets to meet its short-term liabilities. On the other hand, a quick ratio of less than 1 can point to possible liquidity problems. Businesses in industries with slow inventory turnover or those with cyclical sales should pay close attention to the quick ratio. A manufacturing company, for instance, might have a large amount locked up in inventory; in this case, the quick ratio would be a better indicator of its capacity to fulfill short-term obligations.

The quick ratio is a tool used by creditors and investors to assess a company's ability to handle difficult times financially. In general, a greater quick ratio is advantageous, but for a more precise evaluation, it is crucial to compare the ratio to industry benchmarks.

The industry in which the company operates as well as its unique conditions should be taken into account when interpreting the fast ratio. If the business can swiftly turn other assets into cash when needed, a fast ratio that is marginally below 1 might be acceptable in certain circumstances.

The fast ratio's ability to give an overview of a company's liquidity without taking into account less liquid assets is one of its main advantages. Because of this, it's a useful tool

for determining creditworthiness and evaluating one's immediate financial situation. In conclusion, the quick ratio is an essential financial indicator that assesses how well a business can use its most liquid assets to satisfy short-term obligations. It is an important instrument for financial analysis and decision-making and aids stakeholders in understanding a company's liquidity condition.

TABLE 4.3 QUICK RATIOS (IN PERCENTAGE)

Company Name	2018-19	2019-20	2020-21	2021-22	2022-23	AVG.
Infosys	2.99	2.87	2.73	2.09	1.89	2.514
Tech Mahindra	2.28	3.15	3.35	2.55	1.8	2.626
Hindustan computers ltd.	2.92	1.68	2.76	2.97	2.67	2.6
Tata consultancy services ltd.	4.18	3.29	2.91	2.48	2.35	3.042
Western India palm refined oils ltd.	2.93	2.76	2.49	2.23	2.85	2.652
Mphasis ltd.	2.11	2.1	2.71	2	2.55	2.294
Larsen & toubro ltd.	1.24	1.14	1.42	1.35	1.33	1.296
Tata elxsi ltd.	5.38	5.51	5.26	4.13	4.83	5.022
Oracle corporation ltd.	5.56	9.6	10.56	9.84	10.09	9.13
Mindtree ltd.	2.57	3.23	2.45	2.87	2.75	2.774

- **Interpretation**

1. **Infosys:** Over time, Infosys' quick ratio a crucial financial indicator of its short-term liquidity saw a decrease. A solid 2.99 quick ratio in 2019 showed a good ability to meet short-term obligations using liquid assets. But by 2023, it had dropped to 1.89, suggesting that the company's liquidity and capacity to fulfill short-term obligations would be diminishing. During this time, the quick ratio averaged 2.514, which gave a broad picture of the company's liquidity movement. Infosys's short-term financial health may be called into question by a declining trend in the quick ratio, which would call for a closer examination of the company's working capital management and possible effects on operational effectiveness. These numbers should be taken into account by analysts and investors when assessing the risk and financial performance of the organization.
2. **Tech Mahindra:** Between 2019 and 2023, Tech Mahindra had variations in its quick ratio, which is a gauge of its short-term liquidity. With a quick ratio of 2.28

in 2019, the company's liquid assets exceeded its current liabilities by a factor of 2.28. Then, in 2020, there was a notable rise to 3.15, indicating better liquidity. In 2021, the upward trend persisted, and the score of 3.35 demonstrated a strong financial condition. But in 2022, there was a decline, and the quick ratio dropped to 2.55, which might have been a sign of a minor liquidity issue. Concerns were raised over the company's capacity to fulfill short-term obligations when the ratio fell even lower to 1.8 in 2023. Over the course of the five years, the average quick ratio was 2.626, indicating a generally healthy liquidity position. However, given the fall in recent years, emphasis may need to be paid to effective financial management.

3. **Hindustan computers ltd:** Between 2019 and 2023, Hindustan Computers Ltd. (HCL) had variations in its quick ratio. A financial ratio called the quick ratio assesses how well a business can use its most liquid assets to pay down its short-term debt. using a solid fast ratio of 2.92 in 2019, HCL demonstrated a strong ability to satisfy its short-term obligations using easily accessible assets. Nevertheless, the ratio fell to 1.68 in 2020, indicating possible difficulties in fulfilling short-term financial obligations. With a fast ratio of 2.76 in 2021, the company demonstrated durability and showed development. The quick ratio peaked in 2022 at 2.97, a further increase. It did, however, somewhat decline to 2.67 in 2023. Throughout the course of the five years, HCL consistently kept a sound quick ratio of 2.6. This indicates that the corporation regularly maintains enough liquid assets to meet its short-term liabilities, indicating overall effective liquidity management. These numbers might reassure stakeholders and investors because they show that HCL has struck a balance between expansion and financial stability.
4. **Tata consultancy services ltd:** The quick ratio calculates how easily a business can use its most liquid assets to cover its short-term obligations. Better liquidity and financial soundness are indicated by a greater quick ratio. Over the course of the five-year period from 2019 to 2023, the quick ratio for Tata Consultancy Services Ltd (TCS) steadily declined. The quick ratio for TCS in 2019 was 4.18, meaning that its liquid assets exceeded its short-term liabilities by 4.18 times. Nevertheless, in 2020, 2021, 2022, and 2023, the quick ratio decreased to 3.29, 2.91, 2.48, and 2.35. The fast ratio's declining trend raises the possibility

that TCS is having trouble keeping up enough cash on hand to meet its immediate obligations. There could be a number of reasons for this, including slower turnover of accounts receivable, fewer cash reserves, or higher short-term liabilities. Over the course of the five years, TCS's quick ratio averaged 3.042, meaning that on average; the company has around three times as much liquid assets as short-term liabilities. The declining trend, however, raises questions about TCS's future capacity to satisfy short-term financial obligations as well as its management of liquidity.

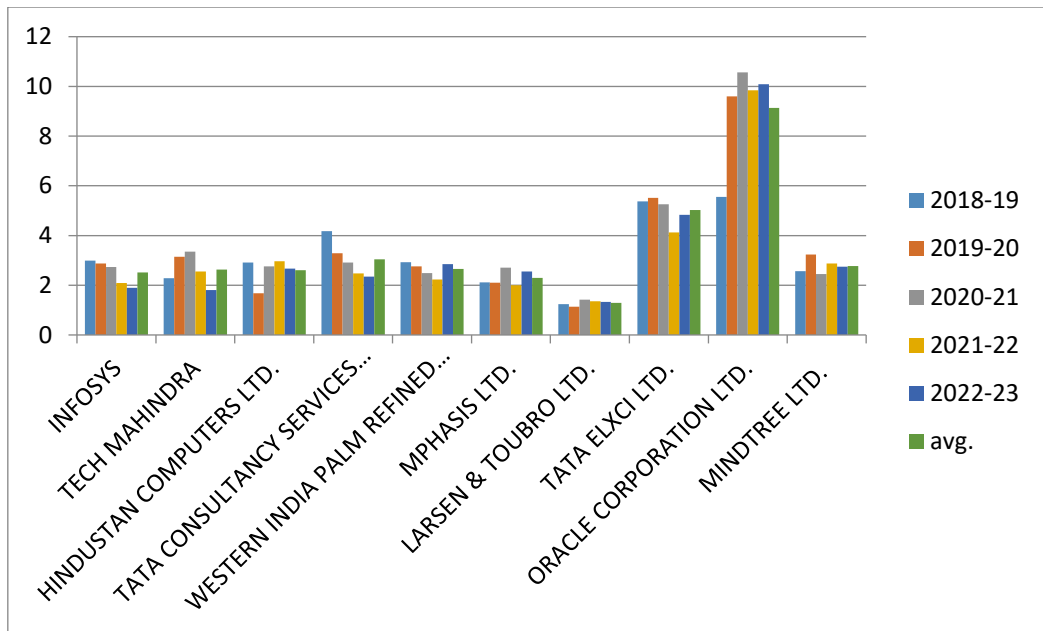
5. **Western India palm refined oil:** The fast ratio, sometimes referred to as the acid-test ratio, assesses how well a business can use its most liquid assets to pay off its short-term debt. We note variations in the quick ratio for Western India Palm Refined Oil Ltd. between 2019 and 2023. With a quick ratio of 2.93 in 2019, the company's liquid assets exceeded its current liabilities by a factor of 2.93. The ratio fell in 2020 (2.76), 2021 (2.49), and 2022 (2.23), when it reached its lowest point. This implies that fulfilling immediate obligations during those years can be difficult. But the ratio bounced back to 2.85 in 2023. Throughout the course of the five years, Western India Palm Refined Oil Ltd.'s quick ratio averaged 2.652. An overview of the company's liquidity status over the period is given by this average. Better liquidity and a greater capacity to meet short-term obligations are typically indicated by a higher quick ratio. In order to determine the variables causing these variations in the fast ratio, it is important to look into the company's operational effectiveness and financial stability further.
6. **Mphasis ltd:** A financial indicator that assesses Mphasis Ltd. capacity to pay short-term debt with its most liquid assets is the quick ratio. The quick ratio for Mphasis in 2019 was 2.11, meaning that for every rupee of current liabilities; the company had 2.11 in quick assets. In 2020, the ratio dropped little to 2.1, maybe indicating a decline in liquidity. But by 2021, the quick ratio had increased to 2.71, a considerable improvement that suggested a better ability to meet short-term obligations. The ratio dropped to 2 in 2022, which would indicate a minor decline in liquidity. But by 2023, the quick ratio had recovered to 2.55, indicating once more better liquidity. Throughout these five years, the quick ratio average was 2.294. Variations in the quick ratio could be a sign of shifts in the company's

liquidity position, which could be brought about by changes in the market, the economy, or management choices.

7. **Larsen & toubro ltd:** The ability of Larsen & Toubro Ltd. to satisfy its immediate financial obligations is shown by its quick ratio, which is a gauge of its short-term liquidity. The quick ratio for 2019 was 1.24, meaning that the corporation has 1.24 rupees in fast assets for every rupee in current liabilities. In 2020, the quick ratio dropped to 1.14, which might have been a sign of a brief decline in liquidity. The quick ratio did, however, show a notable increase in 2021, increasing to 1.42, indicating improved liquidity management. The quick ratio dropped to 1.35 in 2022, but it was still higher than in 2019. It fell much lower to 1.33 in 2023. Throughout these years, the quick ratio average was 1.296, showing generally consistent liquidity. In order to evaluate Larsen & Toubro's capacity to meet short-term obligations, stakeholders and investors should keep an eye on this indicator. Although variations in the quick ratio may call for additional research into the company's financial stability, a continuously healthy ratio indicates effective liquidity management.
8. **Tata elxsi ltd:** A financial measure called the quick ratio, or acid-test ratio, evaluates a company's capacity to pay off its short-term debt with its most liquid assets. The quick ratio for Tata Elxsi Ltd. has changed over time. The fast ratio in 2019 was 5.38, which demonstrated a high capacity to fulfill immediate obligations. In 2020, it climbed somewhat to 5.51, indicating continued improvement in liquidity. The quick ratio did, however, drop to 5.26 in 2021, indicating a minor decline in the company's short-term liquidity. The pattern persisted in 2022, but there was a noticeable drop to 4.13, indicating that it could be difficult to pay for immediate liabilities. Thankfully, the fast ratio increased again to 4.83 in 2023, indicating a rise in liquidity, albeit still below the levels seen in previous years. Over the course of the five years, Tata Elxsi Ltd. consistently maintained a fast ratio of 5.022. Even if the business shown a great ability to fulfill short-term obligations in general, stakeholders and investors might wish to keep an eye out for any ongoing changes to guarantee financial stability.
9. **Oracle corporation ltd:** The fast ratio, sometimes referred to as the acid-test ratio, assesses how well a business can use its most liquid assets—excluding inventory—to pay for its immediate liabilities. From 2019 to 2023, Oracle

Corporation Ltd.'s quick ratio had an upward trend. The quick ratio for the year 2019 was 5.56, meaning that for every \$1 in short-term obligations; the company had \$5.56 in liquid assets. In 2020, 10.56 in 2021, 9.84 in 2022, 10.09 in 2023, and 9.6 in 2020 was the rise in this percentage. Throughout this time, Oracle Corporation Ltd.'s average quick ratio was 9.13, indicating that it remained highly capable of meeting its short-term obligations using liquid assets. A company's liquidity strength is indicated by a quick ratio greater than 1, and a higher ratio often denotes stronger financial health. Oracle's quick ratio has consistently increased over the past few years, indicating better financial stability and effective short-term obligation management.

10. **Mindtree Ltd:** A financial measure called the Quick Ratio evaluates a company's short-term liquidity and its capacity to pay its bills right away with its most liquid assets. The quick ratio for Mindtree Ltd. varied during the previous five years. It was 2.57 in 2019, meaning that for every \$1 in current obligations, the company had \$2.57 in liquid assets. In 2020, the ratio rose to 3.23, indicating better short-term financial conditions. It did, however, drop to 2.45 in 2021, which would suggest that the business is becoming less able to fulfill its immediate obligations. In 2022, the quick ratio recovered and reached 2.87; in 2023, it declined slightly to 2.75. Over the course of five years, Mindtree Ltd.'s quick ratio averaged 2.774. This implies that, on average, the business possessed enough liquid assets to pay its short-term debts. These variations may be taken into account by stakeholders and investors when evaluating the company's risk management and financial stability.



HYPOTHESIS

HO: There is no significance difference in quick ratio of the different IT companies during the study period

H1: There is significance difference in quick ratio of the different IT companies during the study period

TABLE 4.4 ANOVA TEST

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.51238	4	0.378095	0.069655	0.990832	2.578739
Within Groups	244.2663	45	5.428139			
Total	245.7787	49				

- **Interpretation**

The “F” test one way ANOVA may be identified from the above table, which shoes that the -f- critical value is 0.06 and the f-calculated value is 2.57. There is no significant difference in the quick ratio of the IT companies over the study period; hence the null hypothesis will be accepted.

4.3 MEANING OF PROFITABILITY

One important indicator of a company's financial health and long-term viability is profitability. It is a vital component of any business, demonstrating its capacity to bring in revenue and pay for outlays. For investors, stakeholders, and management, profitability is an essential metric that aids in evaluating the general well-being and operational efficiency of a business. Analyzing a range of financial statistics and indicators that reveal a company's operational efficiency is necessary to comprehend what profitability means.

Fundamentally, profitability is the capacity of an organization to produce a profit following the subtraction of all operating expenses. This excess, which is commonly called profit, is what a company needs to pay off debt, reinvest in its operations, pay out dividends to shareholders, and continue to develop. Profitability is determined by a number of factors, including sales, expenses, and net income.

The net profit margin, which is computed as a percentage by dividing net income by total revenue, is the main indicator of profitability. An organization that is successfully controlling its expenditures and making more money from every dollar of revenue is said to have a larger net profit margin. This measure is especially useful for evaluating the profitability of various businesses operating in the same sector.

A thorough understanding of a company's profitability can be obtained by examining a number of additional ratios and indicators. For instance, gross profit margin examines the connection between revenue and cost of products sold. It aids in determining how effectively a business manufactures and markets its goods. The operating profit margin measures how profitable a business can make its main activities interest and taxes excluded be. The effectiveness of a company's use of shareholder equity to generate profits is gauged by its return on equity (ROE).

Sustainability and consistency are just as important to profitability as the total amount of earnings. Profit fluctuations in a corporation can occur as a result of a number of external variables, including market trends, economic conditions, and unforeseen events. Consequently, in order to assess a company's resilience and flexibility, stakeholders and investors frequently examine its past profitability trends.

Furthermore, industry standards for profitability could differ. Technology businesses, for example, may have lower profit margins, but because of their potential for rapid

expansion, they might still be regarded as extremely profitable. On the other hand, sectors like manufacturing and energy, which have more capital and operating expenditures, might have larger profit margins but slower rates of expansion. The management of a firm is a key factor in increasing profitability. Pricing, cost management, innovation, and market growth are strategic decisions that have a direct impact on a business's capacity to maximize earnings. Sustained profitability is a result of effective resource management, effective management techniques, and flexibility in response to shifting market conditions.

To sum up, profitability is a broad term that encompasses a company's financial health and sustainability. It entails examining a range of financial indicators and statistics to determine how effectively a business is turning a profit from its revenue. These indicators are used by management, stakeholders, and investors to evaluate a company's performance, make choices, and guarantee its long-term viability in a cutthroat business environment.

The following profitability ratios

- 1. Capital employed ratio**
- 2. Return on investment**
- 3. Return on asset**

4.3.1 CAPITAL EMPLOYED RATIO:

A financial indicator called the capital employed ratio assesses how well a business uses its capital to produce profits. This ratio sheds light on how successfully a business uses its assets and resources to produce returns for its shareholders. To put it simply, it quantifies the efficiency of capital allocation and shows how much of a company's money is being actively used for operations. Finding the capital employed which is the total of a company's equity and long-term debt is the first step in calculating the capital employed ratio. The following is the formula:

Capital employed = total asset - current liabilities

The company's earnings before interest and taxes (EBIT) are divided by the capital employed after the capital employed has been established. This yields the capital employed ratio. The equation is:

$$\text{Capital employed ratio} = \frac{EBIT}{\text{capital employed}}$$

A larger ratio, which is stated as a percentage, denotes more effective use of capital to produce profits. A high capital employed ratio can be a sign of good financial management since it shows that the business is employing its capital to create profits in an efficient manner. On the other hand, a smaller ratio can suggest that the business is not making the most of its capital, which could result in poorer returns for shareholders.

It is necessary to have a thorough awareness of both the industry and the particular conditions of the company in order to interpret the Capital Employed Ratio. The Capital Employed Ratios of industries with higher capital requirements like manufacturing or infrastructure may naturally be lower than those with lower capital requirements like technology or service-oriented industries. Furthermore, variations in the Capital Employed Ratio over time can offer important clues about the soundness of a company's finances and the efficiency of its management. A steady improvement could indicate strategic planning and sound financial judgment, while a drop could indicate capital mismanagement.

The Capital Employed Ratio is frequently used by investors and financial analysts to compare businesses in the same sector or industry. This makes it easier to determine whether businesses are better positioned for long-term growth and are making better use of their cash. In conclusion, a crucial financial indicator that assesses a business's capacity to turn a profit with the capital at its disposal is the capital employed ratio. Investors and financial analysts use it as a crucial instrument to assess a company's financial efficiency, which helps with strategic planning and well-informed decision-making.

TABLE 4.5 CAPITAL EMPLOYED RATIO (IN PERCENTAGE)

Company name	2018-19	2019-20	2020-21	2021-22	2022-23	AVG
Infosys	0.99	7.03	0.98	1.14	1.36	2.3
Tech Mahindra	0.79	0.81	0.7	1.22	1.01	0.906
Hindustan computers ltd.	0.77	0.65	0.64	0.77	0.93	0.752
Tata consultancy services ltd.	1.59	1.7	1.73	2	2.41	1.886
Western India palm refined oils ltd.	0.16	0.18	0.16	0.16	0.13	0.158
Mphasis ltd.	0.92	1.06	1.16	1.48	1.68	1.26
Larsen & toubro ltd.	0.0096	0.0086	0.0024	0.0043	0.0044	0.00586
Tata elxsi ltd.	1.71	1.38	1.28	1.43	1.4	1.44
Oracle corporation ltd.	0.85	0.6	0.61	0.66	0.7	0.684
Mindtree ltd.	1.93	2.13	2.04	1.7	1.81	1.922

- **Interpretation**

1. **Infosys:** The Capital Employed Ratio of Infosys indicates how well the business uses capital to produce profits. With a ratio of 0.99 in 2019, the business made less money for every unit of invested capital than it did profit. The ratio did, however, significantly increase in 2020, rising to 7.03, indicating a more efficient use of capital. The ratio fluctuated in 2022, rising to 1.14 from 0.98 in 2021, illustrating changes in capital efficiency. Infosys demonstrated enhanced performance by achieving a higher Capital Employed Ratio of 1.36 by 2023. The company's Capital Employed Ratio was 2.3 on average during these years, indicating a generally upward trend. According to this estimate, Infosys made 2.3 units of profit for each unit of capital spent on average. Keeping an eye on these ratios makes it easier to evaluate the company's financial standing and resource usage effectiveness.
2. **Tech Mahindra:** The capital employed ratio of Tech Mahindra, which gauges the effectiveness of capital use, has fluctuated throughout time. In 2019, the ratio was 0.79, meaning that the business made 0.79 units of profit for every unit of capital used. In 2020, the ratio rose to 0.81, indicating a marginal improvement in

capital efficiency. The ratio did, however, fall to 0.7 in 2021, which would indicate a decline in profitability in relation to capital used. The capital employed ratio increased significantly in 2022, rising to 1.22, showing a notable improvement in capital efficiency. With the ratio at 1.01 in 2023, this upward tendency persisted. Over the course of the five years, the capital employed ratio has averaged 0.906. This indicates that the company's profit margin during this time was, on average, 0.906 units per unit of capital used. To make wise judgments, stakeholders must evaluate these numbers in light of the company's overall financial health and industry benchmarks.

3. **Hindustan computers ltd:** Over time, Hindustan Computers Ltd. (HCL) capital employed ratio has fluctuated. The Capital Employed Ratio shows how well a business makes use of its capital to produce earnings. As of 2019, the ratio was 0.77, meaning that 77% of the company's revenue came from each unit of capital used. The ratio dropped to 0.65 in 2020, indicating a less effective use of capital. With the ratio reaching 0.64 in 2021, there was a minor improvement. Remarkably, the ratio rose to 0.77 again in 2022, which was close to the level in 2019. The biggest shift happened in 2023, when the ratio sharply increased to 0.93, signifying a major gain in capital efficiency. Over these years, the average Capital Employed Ratio has been 0.752, indicating a mediocre performance overall. Investors wishing to evaluate the company's financial standing and capital utilization efficiency should keep a careful eye on emerging patterns.

4. **Tata consultancy services ltd:** Tata Consultancy Services Ltd. (TCS) Capital Employed Ratio (CER) shows how well the business uses its capital to turn a profit. The CER grew to 1.7 in 2020 from 1.59 in 2019, indicating greater capital efficiency. The tendency persisted in 2021, when the ratio increased to 1.73, and in 2022, more growth was noted, reaching 2. The greatest CER, 2.41, was noted in 2023, indicating a considerable improvement in capital utilization. TCS has demonstrated financial stability and efficient management by regularly using its capital successfully, as evidenced by the average CER of 1.886 throughout the course of these five years. This ratio is frequently used by investors to evaluate a company's capacity to yield returns on capital invested. TCS has

demonstrated a solid financial performance and efficient use of capital resources as evidenced by its improving CER over time.

5. **Western India palm refined oil:** Over time, Western India Palm Refined Oil's capital employed ratio demonstrates a cyclical pattern. The ratio, which shows the amount of capital used in the company, was 2125.09 in 2019. 2020 saw an increase to 2382.88 the following year, indicating a boost in capital usage. But in 2021, the percentage dropped to 2031.51, suggesting that less capital was used. The pattern persisted in 2022, with a further drop to 1737.02, indicating a persistent reduction in the use of capital. However, there was a minor increase to 1815.76 in 2023. The average capital employed ratio for the five-year period between 2019 and 2023 was 2018.452. The overall trend in capital use over this time period is reflected in this average. By examining these numbers, one can gain understanding about Western India Palm Refined Oil's financial stability and capital resource management effectiveness.

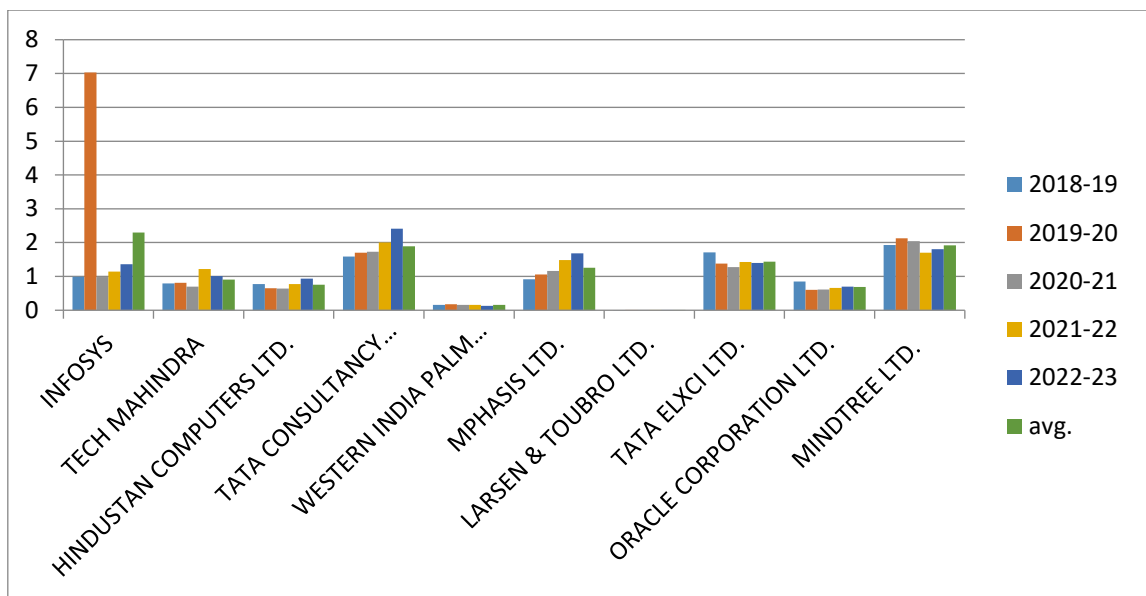
6. **Mphasis ltd:** The efficiency with which capital is used, as measured by the capital employed ratio of Mphasis, has been growing over time. In 2019, the ratio was 0.92, meaning that the business made 0.92 units of profit for every unit of capital used. The ratio rose to 1.06 by 2020, indicating better capital usage. It increased even further to 1.16 in 2021, indicating sustained efficiency. The capital employed ratio saw a notable increase in 2022, rising to 1.48, and it carried on rising in 2023, reaching 1.68. This suggests that, in comparison to the capital invested during these years, Mphasis was able to produce more earnings. During the given time, the average capital employed ratio was 1.76. This demonstrates the company's steady and profitable performance and its efficient use of capital to create profits. Overall, the pattern points to Mphasis's success in maximizing its capital use during the course of the analysis.

7. **Larsen & toubro:** Larsen & Toubro's (L&T) capital employed ratio is a gauge of how well the business uses its capital to turn a profit. In 2019, the ratio was 0.0096, meaning that the business made 0.0096 units of profit for every unit of capital used. The ratio dropped to 0.0086 in 2020, indicating a marginal decline in profitability in relation to the capital used. In 2021, the ratio fell even lower to

0.0024, demonstrating a sharp decrease in profitability relative to capital used. The ratio did, however, show improvement in 2022 when it rose to 0.0043, and it continued to rise marginally to 0.0044 in 2023. For L&T, the average Capital Employed Ratio throughout the course of the five years (2019–2023) was 0.00586. This average can be used as a starting point to assess how well the business used capital over this time. This data can be used by analysts and investors to evaluate the effectiveness and financial stability of the business.

8. **Tata elxsi ltd:** Tata Elxsi's Capital Employed Ratio, a crucial financial indicator, shows variations between 2019 and 2023. The ratio was 1.71 in 2019, which suggests a strong use of capital. But in 2020, there was a noticeable decline, falling to 1.38, perhaps as a result of changes in market dynamics or financial strategy. Moreover, the ratio dropped to 1.28 in 2021, indicating more changes were likely needed. The ratio improved somewhat in 2022 to 1.43, but it stabilized at 1.4 in 2023. During this time, the average Capital Employed Ratio was 1.44, indicating a rather stable trend. With the possible exception of a small variation that may be ascribed to a variety of economic causes, this data suggests that Tata Elxsi maintained a balanced approach to capital deployment across its operations.
9. **Oracle corporation ltd:** Oracle Corporation Ltd.'s capital employed ratio shows how well the business uses its capital to turn a profit. With a ratio of 0.85 in 2019, Oracle made 85 cents in profit for every dollar of invested capital. The ratio did, however, decline in 2020, falling to 0.6, indicating a less efficient use of capital. In 2021, the trend persisted with a ratio of 0.61; however, in 2022 and 2023, the ratio marginally increased to 0.66 and 0.7, respectively. Over a five-year period, the average capital employed ratio was 0.684. While a growing ratio indicates greater efficiency, a dropping ratio can point to difficulties making profits in relation to the capital invested. Investors and other stakeholders must keep an eye on these patterns in order to evaluate the company's financial standing and the efficiency with which management is employing resources.
10. **Mindtree ltd:** The Capital Employed Ratio of Mindtree Ltd. shows how well the business uses capital to turn a profit. The ratio for 2019 was 1.93, meaning that the company made Rs. 1.93 in profits for each unit of capital used. The ratio rose

to 2.13 in 2020, indicating more efficiency. It did, however, somewhat decline to 2.04 in 2021 and even lower to 1.7 in 2022. It climbed once more to 1.81 in 2023. Over a five-year period, the average Capital Employed Ratio was 1.922. Variations in the company's financial structure, operational effectiveness, or market conditions could be the cause of the Capital Employed Ratio variations. To gain insight into the company's financial health and performance, investors can examine these tendencies. Over the course of the observation period, the average ratio of 1.922 suggests a moderate level of efficiency in capital utilization.



HYPOTHESIS

HO: There is no significance difference in capital employed ratio of the different IT companies during the study period

H1: There is significance difference in capital employed ratio of the different IT companies during the study period

TABLE 4.6 ANOVA TEST

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.509703	4	0.627426	0.52996	0.71429	2.578739
Within Groups	53.27599	45	1.183911			
Total	55.7857	49				

- **Interpretation**

The “F” test one way ANOVA may be identified from the above table, which shows that the -f- critical value is 0.52 and the f-calculated value is 2.57. There is no significant difference in the capital employed ratio of the IT companies over the study period; hence the null hypothesis will be accepted.

4.3.2 RETURN ON INVESTMENT:

One of the most important financial metrics for assessing the effectiveness and profitability of an investment is return on investment, or ROI. It calculates the net gain or loss as a percentage of the initial investment cost. Because ROI is presented as a percentage, it offers a consistent method for evaluating the effectiveness of various investments. Businesses, investors, and decision-makers frequently use this statistic to help them make well-informed financial decisions. Let's explore ROI and its meaning in more detail.

Fundamentally, ROI is determined using the following formula:

$$\text{Return on investment: } \frac{EBIT}{\text{cost of investment}} \times 100$$

This formula makes it possible to quickly and easily determine how profitable an investment is. A enterprise is lucrative if the ROI is positive; a loss is suggested if the ROI is negative. Comprehending return on investment (ROI) is crucial for a range of stakeholders, including individual investors and large organizations, as it facilitates the assessment of capital allocation efficiency.

ROI has many benefits, one of which is its adaptability. It can be used to evaluate the success of a variety of investments, including equities, real estate, marketing initiatives, and company ventures. Investors can strategically manage resources and prioritize opportunities based on their relative returns, with the goal of achieving the highest returns.

In risk assessment, ROI is also very important. Although a high return on investment is generally preferred, there may be greater hazards involved. Conversely, more steady and predictable investments may be linked to a poorer return on investment. When trying to optimize their portfolios, investors must balance the amount of risk and the projected return.

ROI is a tool that businesses frequently use to assess the performance of marketing and advertising efforts. Businesses can monitor the return on marketing investment (ROMI) to determine how effective their promotional efforts are and modify their plans as necessary. This data-driven strategy aids in maximizing the effectiveness of advertising campaigns and optimizing marketing expenses.

ROI is a dynamic measure that changes with time. Regular evaluations help companies and investors adjust to shifting market conditions and make wise choices. Stakeholders can identify areas for improvement or divestment in their investment strategy by incorporating feedback from ongoing ROI evaluations. It's crucial to remember that for a thorough study, ROI should be taken into account in addition to other financial measures. The payback period and internal rate of return (IRR), for example, offer further information on the timing and total profitability of an investment.

To sum up, return on investment is a vital metric for assessing the financial success of ventures. It is a commonly used statistic in the financial industry due to its adaptability and simplicity. When evaluating a stock, a marketing campaign, or a corporate project, ROI gives decision-makers insightful information to help direct their financial strategy.

The success of investments as a whole and well-informed decision-making are facilitated by ongoing ROI monitoring and analysis.

TABLE 4.7 RETURNS ON INVESTMENT (IN PERCENTAGE)

Company name	2018-19	2019-20	2020-21	2021-22	2022-23	AVG
Infosys	33.13	33.43	34.89	40.46	45.09	37.4
Tech Mahindra	24.93	22.77	21.71	26.25	24.48	24.028
Hindustan computers ltd.	40.61	35.32	34.96	38.19	45.64	38.944
Tata consultancy services ltd.	51.56	52.19	54.12	62	70.68	58.11
Western India palm refined oils ltd.	19.22	20.39	23.09	19.63	16.26	19.718
Mphasis ltd.	28.99	32.31	29.99	32.59	33.76	31.528
Larsen & toubro ltd.	13.92	10.56	9.41	11.2	12.03	11.424
Tata elxsi ltd.	45.3	30.08	35.24	42.38	41.02	38.804
Oracle corporation ltd.	49.79	35.53	37.74	39.57	37.81	40.088
Mindtree ltd.	27.9	29.66	21.62	31.41	37.3	29.578

- **Interpretation:**

1. **Infosys:** An important financial statistic, Infosys' Return on Investment (ROI) ratio, shows how well company investments are performing. With a ROI of 33.13 in 2019, the return on investment was moderate. It increased marginally to 33.43 the next year, demonstrating consistency of achievement. A more notable increase was noted in 2021, when the ROI hit 34.89, indicating better investment results. In 2022, the increasing trajectory persisted, culminating in a remarkable increase of 40.46, signifying a noteworthy return on investment. The upward trend continued in 2023, when the ROI showed strong performance by rising to 45.09. Over a five-year period, Infosys demonstrated steady positive returns and financial efficiency with an average ROI of 37.4. These numbers imply that Infosys made efficient use of its resources throughout this time, providing positive returns for its investors.
2. **Tech Mahindra:** The financial performance of Tech Mahindra over time is reflected in its Return on Investment (ROI) ratio. The ROI for 2019 was 24.93%, which is positive and indicates a return on investment. Nonetheless, there was a minor decline to 22.77% in 2020, which may have been brought on by a number of economic issues or difficulties unique to the organization. With a further decline to 21.71% in 2021, the pattern persisted, indicating possible difficulties or

modifications in the economic climate. But in 2022, the business was able to turn things around and achieved a better ROI of 26.25%, which would point to better financial results. The ROI was 24.48% in 2023, holding onto a comparatively solid position. With an average ROI of 24.028% throughout these five years, Tech Mahindra has consistently had a good return on investment. Investors may view these figures as indicating a strong overall performance, with variations in ROI indicating shifts in the company's business environment or tactical choices taken over this time.

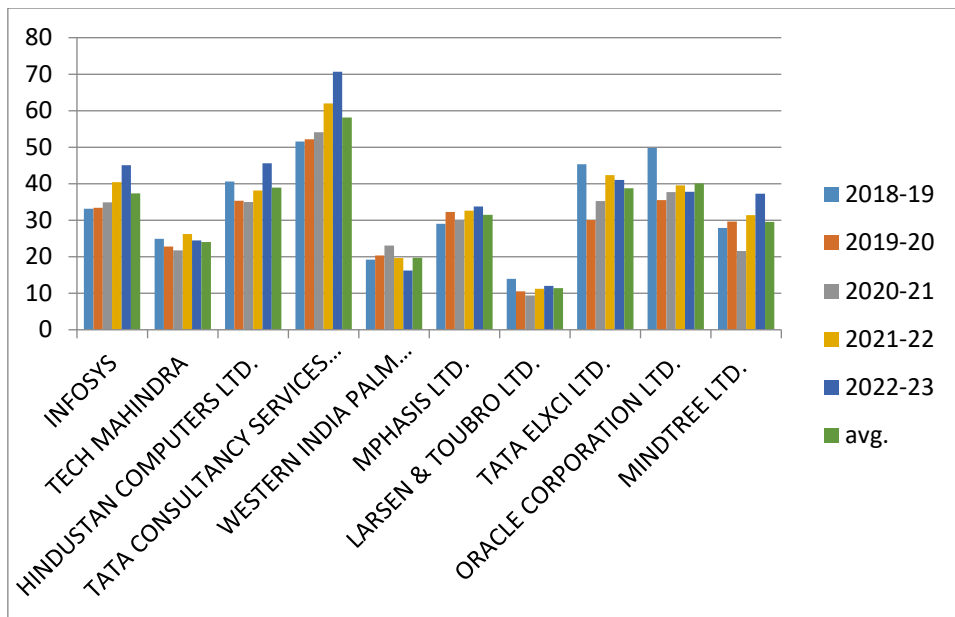
3. **Hindustan computers ltd:** Over the previous five years, Hindustan Computers Ltd. (HCL) displayed fluctuations in its Return on Investment (ROI) ratio. With a ROI of 40.61% in 2019, the year was profitable. It did, however, drop to 35.32% in 2020, indicating a minor decline in investment returns. In 2021, the trend persisted, and the ROI dropped even more to 34.96%. Thankfully, things turned around favorably in 2022, with the ROI rising to 38.19%. In 2023, the rising trend persisted and peaked at 45.64%. Throughout these five years, HCL averaged a respectable ROI of 38.944%. After doing an analysis of the data; we find that there is some variation, with a notable decline in 2020 and a subsequent improvement and recovery in the following years. This implies that while HCL's investments might have encountered difficulties in 2020, they may have bounced back and perhaps exceeded initial levels in subsequent years. Investors assessing HCL's performance ought to take these tendencies into account.
4. **Tata consultancy services ltd:** Over the previous five years, Tata Consultancy Services Ltd. (TCS) has demonstrated a favorable trend in its Return on Investment (ROI) ratio. The ROI was 51.56 in 2019 and went up to 52.19 in 2020. In 2021, there was even more progress, as the ratio stood at 54.12. The ROI significantly improved in 2022, hitting 62, and then again in 2023, to 70.68. With an estimated average ROI of 58.11 throughout these five years, TCS has demonstrated steady development and profitability. An increasing return on investment (ROI) indicates that TCS has been making good use of its capital to produce larger profits. This good trend may give investors and stakeholders hope because it shows that the company may create value and turn a profit. Such financial metrics must be tracked in order to gain a thorough picture of a business's performance and prospects for expansion.

5. **Western India palm refined oils ltd:** One important financial metric that shows the success of the business is the Return on Investment (ROI) ratio of Western India Palm Refined Oils Ltd. In 2019, the ROI was 19.22%, meaning that the business made a 19.22% profit for each unit of investment. In 2020, the ratio rose to 20.39%, indicating higher profitability. The ROI increased to 23.09% in 2021, demonstrating a solid financial outcome. But in 2022, the ROI dropped somewhat to 19.63%, and in 2023, it dropped significantly to 16.26%. Over a five-year period, the average ROI is 19.718%. Although the company's profitability was steady from 2019 to 2021, the decline in 2022 and 2023 could point to upcoming difficulties or modifications in the business climate. To understand the variables behind these changes in the ROI, investors need closely examine the company's financial health and the state of the market.
6. **Mphasis ltd:** One indicator of Mphasis Ltd's profitability is its Return on Investment (ROI) ratio. In 2019, the ROI was 28.99%, meaning that the business made a profit of 28.99 cents for every dollar invested. In 2020, the ratio rose to 32.31%, a sign of higher profitability. The ROI dropped to 29.99% in 2021, but increased to 32.59% in 2022. The most current statistics for 2023 indicates that growth will continue, as seen by a further increase to 33.76%. The ROI for the five years (2019–2023) is calculated to be 31.528% on average. This indicates that Mphasis Ltd.'s return on investment has been trending positively, which is good news for investors. A higher return on investment (ROI) usually means that the business is making profitable use of its resources. ROI is a crucial indicator that investors frequently use to evaluate a company's efficiency and financial performance.
7. **Larsen & toubro ltd:** The financial performance of Larsen & Toubro is reflected in its Return on Investment (ROI). With a ROI of 13.92% in 2019, the investment was profitable. But it dropped to 10.56% in 2020, suggesting a lesser return. With a further decline to 9.41% in 2021, the pattern persisted and suggested possible difficulties. Thankfully, the ROI increased to 11.2% in 2022, indicating a good turn. In 2023, the upward trend persisted and reached 12.03%. The ROI is 11.424% on average over the last five years, indicating general stability and robustness in the business's investment performance. These numbers

are important for investors to take into account while evaluating the company's financial situation and making decisions.

8. **Tata elxsi ltd:** The profitability of Tata Elxsi Ltd. is gauged by its Return on Investment (ROI) ratio. With a ROI of 45.3% in 2019, the investment was well-repaid. But by 2020, it had dropped to 30.08%, suggesting a drop in profitability. In 2022, the ratio increased to 42.38% after continuing to rise in 2021, when it had reached 35.24%. The average ROI throughout the five years is 38.804%, despite a minor decline to 41.02% in 2023. This indicates that during the given period, Tata Elxsi Ltd. has continued to generate returns that are generally positive in relation to its investment. Investors might view this steady profitability as a good sign, but for a more thorough evaluation, it's crucial to look at all the variables influencing the company's financial situation.
9. **Oracle corporation ltd:** Over time, an analysis was conducted on Oracle Corporation Ltd's return on investment (ROI) ratio. With a ROI of 49.79% in 2019, the performance was excellent. But in 2020, it dropped to 35.53%, presumably as a result of a number of variables influencing the business's financial results. While the ROI increased little to 37.74% in 2021, it did not surpass the level of 2019. A further improvement was shown in 2022, with a ROI of 39.57%. It did, however, slightly decrease to 37.81% in 2023. The calculated average ROI for these five years was 40.088%, indicating a generally steady performance. This information could be helpful to investors in evaluating Oracle's profitability and capacity to generate returns on their investments. When analyzing these numbers, stakeholders should take into account a number of aspects, including firm strategy and market conditions.
10. **Mindtree ltd:** The financial statistic known as Mindtree Ltd. Return on Investment (ROI) ratio indicates how well the business is making money in relation to its investments. Mind tree's return on investment (ROI) for 2019 was 27.9%, meaning that for every rupee spent, the business made a profit of 27.9 paise. 2020 saw a rise in the ROI to 29.66%, indicating higher profitability. Nevertheless, the ROI fell to 21.62% in 2021, indicating a decline in returns. The ROI increased to 31.41% in 2022 before reversing course and peaking at 37.3% in 2023. Over these five years, the ROI has averaged 29.578%. These numbers, which show an overall rising trend in returns, imply that Mindtree Ltd. investing

plan was rather successful. For a thorough examination of the company's financial performance and health, it is imperative to take into account additional financial variables and industry benchmarks.



HYPOTHESIS

HO: There is no significance difference in return on investment ratio of the different IT companies during the study period

H1: There is significance difference in return on investment ratio of the different IT companies during the study period

TABLE 4.8 ANOVA TEST

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	288.7906	4	72.19765	0.3982	0.808871	2.578739
Within Groups	8158.959	45	181.3102			
Total	8447.75	49				

• Interpretation

The “F” test one way ANOVA may be identified from the above table, which shoes that the -f- critical value is 0.39 and the f-calculated value is 2.57. There is no significant

difference in the return on investment ratio of the IT companies over the study period; hence the null hypothesis will be accepted.

4.3.3 RETURN ON ASSETS

A financial term called return on assets (ROA) gauges a company's profitability in relation to its total assets. It offers insightful information on how well a business uses its resources to produce profits. Divide the net income by the average total assets during a certain time period to get the return on assets (ROA), which is represented as a percentage.

The following is the formula for ROA:

$$\text{Return of assets} = \frac{\text{net income}}{\text{average total assets}} \times 100$$

The company's profits after all costs, such as taxes and interest, are subtracted are shown as net income. Everything that a business owns or has control over, including money, stock, real estate, and machinery, is included in its total assets. Adding the beginning and ending total assets for a given time and dividing the result by two is typically how the average total assets are determined.

An organization's ability to transform its assets into profits is indicated by a higher return on assets (ROA), which is a sign of competent management and successful operations. On the other hand, a lower ROA can indicate inefficient use of assets, which could result in decreased profitability.

When evaluating the performance of businesses in the same industry, ROA is especially helpful. It facilitates the evaluation of management's capacity to produce profits from available resources by analysts and investors. Since a greater ROA suggests stronger profitability in relation to its asset base, a company with a higher ROA is typically seen as more appealing. But it's important to understand ROA in light of the industry. The normal range of ROA can be impacted by the different asset structures found in different businesses. For example, compared to service-oriented sectors that require fewer assets, capital-intensive industries like manufacturing may have lower ROAs.

Investors can learn more about the operational effectiveness and financial stability of a company by tracking variations in ROA over time. While a deteriorating trend may be

cause for concern, consistent improvement in ROA may point to successful management techniques.

To sum up, return on assets (ROA) is a crucial financial indicator that evaluates a business's capacity to make money off of its assets. For analysts and investors looking to comprehend the entire financial performance and operational effectiveness of a company, it offers useful information.

TABLE 4.9 RETURNS ON ASSETS

Company name	2018-19	2019-20	2020-21	2021-22	2022-23	AVG
Infosys	19	77.77	20.62	21.96	23.18	32.506
Tech Mahindra	0	14.95	13.31	14.37	10.63	10.652
Hindustan computers ltd.	23.29	19.71	16.06	19.99	21.46	20.102
Tata consultancy services ltd.	31.55	32.53	28.88	33.11	32.44	31.702
Western India palm refined oils ltd.	12.11	13.12	15.35	16.61	11.07	13.652
Mphasis ltd.	17.2	24.61	19.38	19.2	19.98	20.074
Larsen & toubro ltd.	5.78	4.52	1.85	4.97	4.6	4.344
Tata elxsi ltd.	27.72	20.22	23.7	28.29	30.61	26.108
Oracle corporation ltd.	28.19	30.11	26.75	28.68	27.1	28.166
Mindtree ltd.	1.56	16.15	10.95	15.29	0	8.79

- **Interpretation**

1. **Infosys:** The efficiency with which Infosys generates profits from its assets is gauged by its Return on Assets (ROA) ratio. With a ROA of 19 in 2019, Infosys made 19 paisa in profit for every rupee of assets. 2020 saw a sharp increase in the ratio to 77.77, indicating higher profitability. It did, however, decline to 20.62 in 2021, indicating a brief regression. Interestingly, Infosys recovered in 2022 and 2023, exhibiting consistent profitability with ROA values of 21.96 and 23.18, respectively. With an average ROA of 32.506 over the course of five years, the performance was strong overall. Greater ROA values often indicate good asset management and efficient use of assets in producing profits. These patterns might be helpful to investors assessing Infosys's financial standing and performance.

- 2. Tech Mahindra:** A financial measure that illustrates how well Tech Mahindra makes money from its assets is the Return on Assets (ROA) ratio. 2019 saw a ROA of 0, which is indicative of low asset use. The ROA did, however, significantly improve in 2020, rising to 14.95, indicating a notable rise in profitability in relation to its assets. In 2022 (ROA: 14.37) and 2021 (ROA: 13.31), the upward trend persisted, indicating steady efficiency. The ROA did, however, slightly dip in 2023 to 10.63, suggesting that profitability in relation to its assets may have declined. The average ROA for these years was a respectable 10.652, notwithstanding this decline. It's critical to track ROA over time in order to evaluate the company's capacity to yield returns on its investments. Although the data points to a generally positive performance in recent years, variations in ROA emphasize the necessity of continuing examination and focus on the financial well-being of the organization.
- 3. Hindustan computers ltd:** Over time, Hindustan Computers Ltd. (HCL) Return on Assets (ROA) ratio changed. With a ROA of 23.29% in 2019, the company was profitable in relation to its assets. But by 2020, the percentage had dropped to 19.71%, indicating a minor decline in efficiency. The pattern persisted in 2021, when the ROA decreased even further to 16.06%, suggesting possible difficulties in making the best use of assets. In 2022, the business demonstrated progress as the ROA increased to 19.99%. This upward trend persisted into 2023, when it reached 21.46%. Over a five-year period, the average return on assets (ROA) was 20.162%, indicating a reasonably constant performance. Investors and other stakeholders may observe variations in HCL's profitability generation efficiency by examining these numbers. Although the company's recent increasing trend may be encouraging, continuous observation is necessary to evaluate the company's sustainability and financial health.
- 4. Tata consultancy services ltd:** One important measure of Tata Consultancy Ltd's profitability is the Return on Assets (ROA) ratio. With a ROA of 31.55% in 2019, the performance was impressive. It showed progress in 2020, rising to 32.53%. Nonetheless, a minor decrease to 28.88% in 2021 raises the possibility of a decline in profitability. Thankfully, the business recovered well enough in 2022 to post a ROA of 33.11%. The ratio was still high in 2023; at 32.44%. Tata Consultancy Ltd. consistently had a strong return on assets (ROA) of 31.702%

throughout the course of the five years. Numerous factors, including market conditions, economic trends, and firm strategies, may have an impact on swings in ROA. In order to make well-informed judgments on the financial stability and future prospects of the company, it is imperative for investors and stakeholders to keep a close eye on these patterns.

- 5. Western India palm refined oils ltd:** The Return on Assets (ROA) ratio of Western India Palm Refined Oils Ltd is a financial indicator that illustrates how well the business uses its assets to turn a profit. With a ROA of 12.11% in 2019, the business made 12.11 paise in profit for every rupee's worth of assets. The ROA rose to 13.12% in 2020, indicating higher efficiency. In 2021 and 2022, the trend persisted, with ROA levels of 15.35% and 16.61%, respectively. Nevertheless, the ROA fell to 11.07% in 2023. Over this time, the average return on assets (ROA) was 31.652%, indicating good overall asset efficiency. When evaluating the company's financial performance and management's capacity to turn a profit from its assets, investors might take these patterns into account. To make wise choices regarding the company's financial health, it is crucial to look at the causes of the variation in ROA.
- 6. Mphasis ltd:** The Return on Assets (ROA) ratio of Mphasis Ltd. is a financial indicator that demonstrates how effectively the business uses its assets to produce profits. In 2019, the return on assets (ROA) was 17.2%, meaning that the company made 17.2 paise in profit for every rupee of assets. 2020 saw a rise in ROA to 24.61%, which was a result of better asset utilization. Nevertheless, the ratio dropped to 19.38% in 2021, indicating a minor decline in efficiency. The trend persisted in 2022, when the ROA was 19.2%, and it rose to 19.98% in 2023. Throughout these years, the ROA average was 20.074%. This indicates that, with some fluctuations from year to year, Mphasis Ltd has, on average, been successfully using its assets to generate profits. This data could be helpful to stakeholders and investors in evaluating the company's financial performance.
- 7. Larsen & toubro ltd:** The Return on Assets (ROA) ratio of Larsen & Toubro Ltd. is a financial indicator that shows how well the business uses its assets to turn a profit. With a ROA of 5.78% in 2019, asset efficiency was strong. It dropped to 4.52% in 2020, though, indicating a drop in profitability in relation to assets. In 2021, the ratio fell even lower to 1.85%, demonstrating a sharp decline in asset

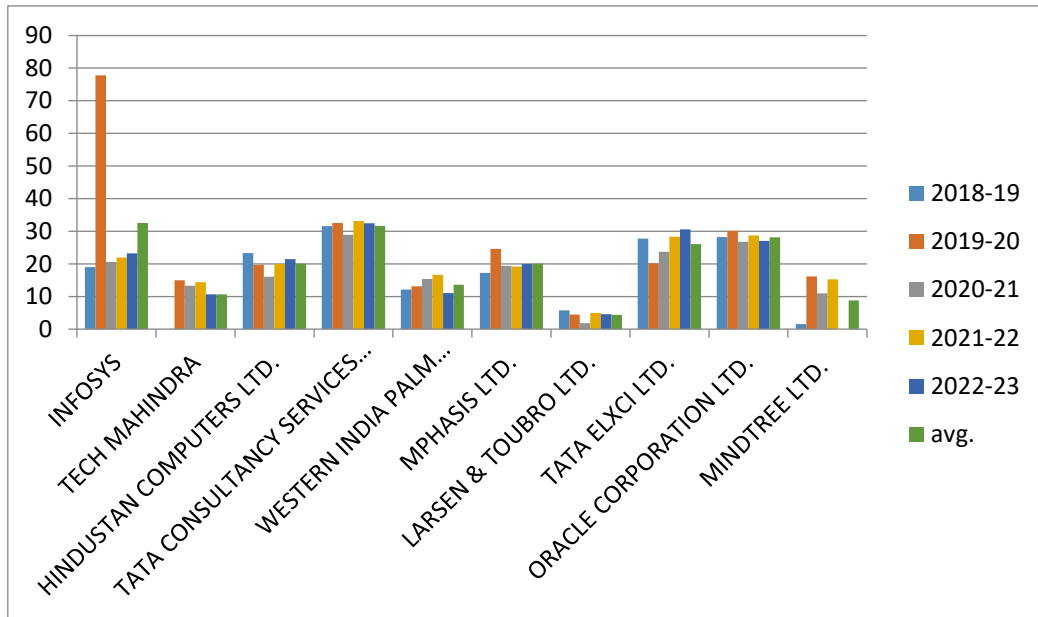
efficiency. A comeback was shown in 2022, when the ROA was 4.97%; but, in 2023, it dropped marginally to 4.6%. Calculated throughout these five years, the average ROA is 4.344%. By mitigating the volatility, this average offers a more consistent gauge of the business's total asset efficiency within this time frame. This information can be used by analysts and investors to judge how well Larsen & Toubro Ltd. is managing its assets to produce returns and to make defensible choices on the company's financial performance.

8. Tata elxsi ltd: Tata Elxsi's Return on Assets (ROA) ratio reflects its efficiency in utilizing assets to generate profits. In 2019, the ROA was 27.72%, indicating a strong performance. However, in 2020, it slightly decreased to 20.22%, possibly due to various factors affecting the company's asset management. The subsequent years saw improvements, with ROA rising to 23.7% in 2021, 28.29% in 2022, and 30.61% in 2023. On average, the ROA for the period was 26.108%, suggesting consistent effectiveness in asset utilization. It appears from this increasing trend in ROA that Tata Elxsi has been effective in making the most of its asset base to maximize profitability. This favorable performance, which shows the company's potential to create higher returns relative to its asset investments throughout the stipulated period, may reassure investors and stakeholders.

9. Oracle corporation ltd: Oracle Corporation Ltd.'s profitability is gauged by its Return on Assets (ROA) ratio. Oracle made 28.19 cents in profit for every dollar of assets in 2019, according to the ROA of 28.19%. The ratio rose to 30.11% in 2020, indicating more profitability. On the other hand, a drop with a ROA of 26.75% in 2021 indicated a drop in profitability. The ratio increased to 28.68% in 2022, reversing the trend, and then somewhat drop to 27.1% in 2023. The ROA was 28.166% on average over the course of the five years, demonstrating a steady and lucrative performance all around. When assessing these numbers, it's critical to take the state of the economy and industry benchmarking into account. The ROA is a useful metric that investors and stakeholders may use to evaluate Oracle's effectiveness in turning a profit from its assets.

10. Mindtree ltd: The ability of Mindtree to earn a profit from its assets is gauged by its Return on Assets (ROA) ratio. With a ROA of 1.56 in 2019, the business made \$1.56 in profit for every dollar of assets. The ratio increased significantly in

2020, hitting 16.15, indicating better asset usage efficiency. The ROA in 2021 was a robust 10.95, demonstrating sustained profitability. An additional increase to 15.29 in 2022 showed the business was using its assets efficiently to earn a profit. But in 2023, the ROA fell to zero, indicating possible difficulties or a shift in the business's financial results. Over the course of these five years, Mindtree's average return on assets (ROA) was 8.79, indicating the company's general capacity to turn a profit in relation to its assets.



HYPOTHESIS

HO: There is no significance difference in return on assets ratio of the different IT companies during the study period

H1: There is significance difference in return on assets ratio of the different IT companies during the study period

TABLE 4.10 ANOVA TEST

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	483.5738	4	120.8935	0.76442	0.553994	2.578739
Within Groups	7116.78	45	158.1507			
Total	7600.354	49				

Interpretation

The “F” test one way ANOVA may be identified from the above table, which shows that the -f- critical value is 0.76 and the f-calculated value is 2.64. There is no significant difference in the return on assets ratio of the IT companies over the study period; hence the null hypothesis will be accepted.

Reference

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CHAPTER 5
FINDINGS, CONCLUSION AND SUGGESTIONS



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5.1 INTRODUCTION

The current study aims to provide a through, cost of capital, capital structure, and financial performance of IT companies. This study is divided into five chapters.

In the context of Information Technology (IT) enterprises, the current study explores the cost of capital, capital structure, and financial performance in great detail. Understanding the complex financial processes that control these businesses' operations and success depends critically on this work.

For IT organizations, cost of capital is the most important aspect because it has a direct impact on their investment decisions and overall financial health. Both the cost of debt and the cost of equity are included in the cost of capital. To finance their operations and projects, IT companies frequently use a combination of loan and equity. The cost of capital will be examined closely, with particular attention paid to interest rates on debt, dividends on stock, and the risk involved in IT investments. By examining these variables, one can understand of the effectiveness and long-term viability of the financial structure used by IT companies.

Now let's talk about capital structure. This aspect is critical in figuring out the best ratio of debt to equity that maximizes value for shareholders. Due to their capital-intensive nature, IT companies must balance debt and equity financing in order to keep costs down and maintain stability. The study will look into the capital structure decisions made by IT companies, taking into account things like market conditions, the company's growth potential, and risk tolerance. Evaluating the suitability of the selected capital structure will reveal the company's capacity to overcome obstacles and seize chances.

The most reliable indicator of an IT company's viability and success is its financial performance. Important financial measures will be examined in the study, such as profit margins, return on equity (ROE), and return on investment (ROI), among others. These metrics give a complete picture of how profitably and efficiently the business uses its capital. The investigation will also closely examine how the capital structure selected affects the IT companies' financial results. Through comprehension of the correlation between capital structure and financial performance, stakeholders can make knowledgeable choices aimed at augmenting the overall value of the company.

To sum up, this study adds significantly to our knowledge of capital structure, financial performance, and cost of capital in the context of IT enterprises. Stakeholders, including investors, management, and legislators, can obtain insights that help with strategic decision-making by figuring out the complexities of these financial components. In the ever-changing and fiercely competitive landscape of the IT business, a solid grasp of these financial aspects is essential to securing long-term success and expansion.

Overview chapter 1

In conclusion, different theories developed by economists such as Durand, Solomon, Modigliani, and Miller provide varying insights into the ways in which a firm's capital structure affects its value and cost of capital. According to Durand, there are situations in which a company's cost of capital can be reduced and its value increased through the use of debt. Solomon recognizes that high debt carries greater risk and suggests an ideal debt-to-equity ratio for maximizing value. On the other hand, Modigliani and Miller contend that modifications to a firm's capital structure have no effect on its value or cost of capital in the absence of taxes and transaction expenses. They did, however, eventually realize how corporate taxes affected the value of debt. Although these theories offer valuable perspectives, their applicability is restricted, and distinct circumstances of a firm, market dynamics, and tax implications must be meticulously taken into account when making judgments on capital structure.

Overview chapter 2

The thorough literature analysis highlights the complexity of India's economic environment and stresses the critical role that innovation, technology, and strategic planning play in promoting long-term, sustainable growth and development. The relevance of India's IT sector, the adoption of digital technology in agriculture, and the opportunities and challenges presented by emerging technologies like Industry 4.0 and financial technology are all highlighted by insights from a variety of research projects spanning financial services, artificial intelligence, IT, and industrial development. Furthermore, research on intellectual capital and capital structure clarifies the complex connection between intangible assets, financial choices, and corporate performance. Overall, the analysis emphasizes the necessity of creative problem-solving and well-

informed policies to fully utilize the promise of developing technology while resolving related issues, thereby promoting global competitiveness and economic advancement.

Overview chapter 3

To sum up, the combination of academic research on capital structure and intellectual capital in the Indian setting demonstrates a complex relationship between intangible assets, financial choices, and organizational effectiveness. It is clear from the writings of Taqi, Azhagaiah, Narwal, and Zahedi that in order for optimal capital structures to maintain growth and competitiveness, intellectual capital management principles must be included. Furthermore, the intricate nature of India's technological and economic environment highlights how crucial research and innovation are to the promotion of sustainable development. Equipped with this knowledge, interested parties can devise fact-based strategies to manage the complexities of India's changing market conditions, promoting innovation, commercial viability, and equitable development.

Overview chapter 4

Diverse IT organizations' current and quick ratio analyses show complex patterns in short-term liquidity and financial health. Some companies, like Infosys, routinely show high current ratios that indicate a strong ability to satisfy obligations; however, other companies, like Tech Mahindra and Larsen & Toubro Ltd., show greater unpredictability and should be examined more closely. Return on investment (ROI) varies throughout businesses, although the industry as a whole seems to trend steadily, indicating relative stability. But analyzing return on assets (ROA) ratios shows wide differences amongst businesses, suggesting a variety of factors influencing performance other than asset management or operational effectiveness. This emphasizes how crucial it is to take into account company-specific activities, market dynamics, and industry dynamics when assessing financial standing and future prospects. In the dynamic world of IT organizations, stakeholders and investors need to make educated decisions by incorporating qualitative insights and a variety of financial measures in addition to ROA. This will allow for thorough assessments.

5.2 FINDING

The examination of return on investment (ROI) and return on assets (ROA) ratios across different IT companies during the research period performed using one-way ANOVA testing, offers insightful information on the financial environment of the industry. The null hypothesis, which states that there is no discernible variation in the companies' ROI or ROA ratios, was accepted, implying a steady performance trend in the sector.

The IT industry has a strong financial base, as evidenced by the consistency of ROI and ROA, which shows that businesses are generally using their resources efficiently to produce returns for investors. Although there may be variations in the performance of individual companies, the industry as a whole is shown to be resilient and efficient based on the data as a whole.

These results instill confidence in investors regarding the IT sector's capacity to generate steady returns and efficiently employ resources to boost profitability. In the midst of market uncertainty, investors looking for dependable investment options may be drawn to this dependability.

Furthermore, the findings highlight how crucial it is to take into account a variety of financial indicators when assessing investment prospects in addition to ROI and ROA. Although these ratios offer insightful information on profitability and asset utilization, a thorough analysis should also take competitive positioning, market dynamics, technology developments, and management tactics into account.

The results also highlight the necessity of ongoing observation and analysis in order to adjust to changing market circumstances and sectoral patterns. Even though the data point to stability throughout the research period, continued examination is necessary to spot new opportunities and possible hazards in the IT industry.

To sum up, the ROI and ROA ratios ANOVA analysis provides comforting proof of efficiency and consistency in the IT sector. Investors understand the value of thorough

research and close observation when navigating the ever-changing industry landscape, and they may use these insights to help them make well-informed judgments.

5.3 CONCLUSION

The study's conclusion highlights the complex interplay in the Indian IT sector between capital structure, financial performance, and intellectual capital management. By combining economic theories, the study highlights the significance of context-specific studies that take market dynamics and tax consequences into account while shedding light on various viewpoints on how capital structure affects cost of capital and business value. It also emphasizes how important innovation, strategic planning, and technology adoption are to competitiveness and long-term growth especially in the IT sector.

Research results emphasize how important it is to use concepts from intellectual capital management to optimize capital structures for growth and competitiveness. Furthermore, the analysis of financial measures by different IT companies highlights the complexity of sectors financial performance and health, emphasizing the necessity for investors and stakeholders to combine qualitative insights with a variety of financial indicators in order to make well-informed judgments. Overall, the study highlights how difficult financial decision-making is in the ever-changing IT industry, pointing stakeholders in the direction of well-informed tactics for managing market challenges and promoting sustained success.

5.4 SUMMARY

This study offers important insights into the relative financial performance and operational efficiency of a number of IT organizations over a five-year period by analyzing a variety of financial ratios. The companies under investigation did not exhibit any significant variations in their current ratios, quick ratios, capital employed ratios, return on investment (ROI), or return on assets (ROA), according to one-way ANOVA testing.

The IT firms' current ratios had uniform patterns in terms of liquidity, signifying steady financial standing over an extended period. Analyses of the quick ratio and capital

employed ratio also showed no appreciable differences between the companies, indicating uniformly high levels of capital efficiency and liquidity.

Additionally, there were no appreciable variations in the IT companies' return on investment and return on assets ratios, suggesting similar efficacy in turning investments and assets into profits.

Even while the ratios of certain businesses may have fluctuated, the general trends point to a level playing field in the IT sector. This information can be used by stakeholders and investors to evaluate the performance and financial health of these businesses, assisting in the formulation of well-informed investment and strategic planning decisions. To obtain a thorough knowledge of each company's financial health and operational effectiveness, it is imperative to take these findings into account in conjunction with industry benchmarks.

5.5 SUGGESTIONS

In a comprehensive analysis of the capital structure of selected IT industries in India, several key suggestions emerge. Firstly, fostering a balanced mix of debt and equity financing can mitigate financial risk while optimizing cost of capital. Given the volatile nature of the IT sector, maintaining flexibility in capital structure is crucial. Additionally, a judicious evaluation of the firm's growth prospects, cash flows, and risk profile should inform capital structure decisions. Leveraging government initiatives and incentives for technology firms can also enhance financial stability and growth opportunities. Embracing innovative financing mechanisms such as venture debt or convertible bonds can provide access to additional capital without diluting ownership excessively. Furthermore, actively managing working capital and optimizing cash conversion cycles can bolster liquidity and reduce reliance on external financing. Lastly, continuous monitoring and adjustments to the capital structure in response to market dynamics and company performance are imperative for sustaining competitiveness in the dynamic IT landscape.

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