1.1 INTRODUCTION

The act of making money available when it is needed is the definition of finance. No matter how big, how medium, or how tiny, every business requires money to function and accomplish its objectives. Today, finance is so important, it is sometimes referred to as an organization's "lifeblood." No corporation could possibly fulfil its goals without enough cash. The word "finance" refers to how money is managed within a company. It has to do with using one's skills for manipulation, use, and money management. Finance has a major role to play throughout the entire advertising process in the life of an organization. The necessity to accurately predict how much money will be needed both now and in the future.

A business may use both debt and equity to fund its investments. Leverage in the financial system rises as debt does. Here, an effort is made to examine the leverage analysis of a Kerala-based Raj construction company from 2017 to 2020. Every business must deal with the very important issue of financing its assets, and as a general rule, this financing should be done using a suitable ratio of debt and equity capital. An unsuitable combination of leverage, which would limit the company's ability to grow, a proper mix of operating and financial leverage contributes to the growth of the business.

1.2 STATEMENT OF THE PROBLEM

Selecting the appropriate ratio of debt to equity really crucial for any company management. Therefore, in this study we analyze each leverage analysis and examine the performance on each leverage analysis. When we compare operating analysis, financial analysis, combined analysis we can easily find the mistakes and rectify the mistakes.

1.3 OBJECTIVES OF THE STUDY

- To analyse the operating leverage, financial leverage, combined leverage analysis of Raj Construction
- To study the relationship between leverage and profitability of Raj Construction

1.4 SCOPE OF THE STUDY

In leverage analysis, examining the connections between two variables. The two variables for which the relationship is to be developed and quantified must be related in order for leverage analysis to be helpful. Leverage analysis is useless if the variables are not connected. The businesses that are profitable might readily increase their debt load. Therefore, profitability is crucial to leverage decisions. This study helps them to analyses how the leverage affects the financial, operational, combined performance of Raj Construction Company.

1.5 SIGNIFICANCE OF THE STUDY

Leverage suggests using fixed costs to increase the impact of a particular input. Once more, leverage involves more than just taking a chance. It shouldn't be, at least. Its measured risk should be deployed strategically to optimize profits. Any firm that uses its ability to borrow strategically and intelligently is likely a smart company to invest in. Knowing how and when to use leverage is vital to the healthy operation of any company. Leverage analysis allows us to determine whether a firm is risky or safe for investment.

1.6 INDUSTRY PROFILE

The building, maintenance, and repair of buildings and other immovable structures, as well as the construction of roads and service facilities that constitute a vital component of buildings and are required for their usage, all fall under the category of construction. Construction, in its broadest sense, refers to the procedures involved in creating structures, infrastructure, industrial facilities, and related operations up until the point at which they are no longer functional. Construction encompasses structural alterations and expansions but excludes the building of portable structures like trailers and boats. Planning, funding, design, implementation, building, together with any necessary repairs, upkeep, and enhancements, are usually the first steps.

MARKET OVERVIEW

One of India's fundamental sectors is construction, which serves as a key engine for the country's economic expansion. About 8% of India's GDP comes from the building sector. The bulk of India's expanding construction industry's growth is driven by government construction projects. Power generation projects, road building, railroad expansion, and cargo exports and imports are the key construction operations that indicate growth. Freight accounts for over 21% of the contribution, followed by highway building and expansion (9.8%) and electricity generating (6.6%). Government programmed like the establishment of 100 smart cities, world-class shipping infrastructure, housing, and urban development have drawn significant investment from FDI, private parties, and public funds. India would require USD 4.5 trillion for infrastructure development by 2040, according to Economic Survey 2017–18. By 2017, foreign direct investments of USD 24.7 billion had been made in the housing and urban development sector. Additionally, the logistics industry is anticipated to increase from $160 billion in 2017 to $218 billion in 2020 with the introduction of the Goods and Services Tax (GST).

The government's new urban development mission, partnership agreements between local urban bodies and foreign players, the current infrastructure situation, which is expected to be insufficient to support the urban population, and other factors will all contribute to the expansion of India's construction industry. 100% FDI is also permitted in projects that involve establishing industrial parks and housing, urban areas, hospitals, hotels, and other institutions of higher learning.

HISTORY

Due to the investment opportunities, it generates across a variety of connected sectors, the construction industry in India is a significant indication of development. An estimated 670,778 cores (US$131 billion) in production expenses were contributed by the construction industry to the national GDP in 2011–12, with a proportion of about 8.2%. The industry is divided into small and medium-sized contractors who work on a subcontract basis and perform field work, as well as a small number of large enterprises that engage in construction activities across all segments. In India, there were more than 500 businesses that produced construction equipment in 2011. With indirect employment, the industry employs more than 49.5 million people and is labor-intensive. In addition to creating buildings that improve productivity and quality of life, the construction industry is viewed as being crucial to economic expansion. In the 20th century, economic politicians and others frequently used the term "economic development," along with other words like "modernization," "Westernization," and "industrialization," among others. Environment and economic development are closely related. Government initiatives include financial and economic policy, financial industry trade regulation, and tax policy in order to achieve economic goals such as price stability, high employment, and sustainable growth.

SERVICES

Providers of services like consulting, designing, maintenance, installation, banking, insurance, and housing have obligations. Services are immaterial and do not involve ownership or ownership being transferred. Products and materials, which are observable objects used in or incorporated into construction work, such as doors or concrete, are distinct from services. However, services might also be offered along with the delivery of goods or resources.

Services are defined as "Work, duty, or work performed by a contractor under contract" in the Inter-Agency Working Group on Procurement's (IAPWG) 2006 and 2012 revisions of the UN Procurement Practitioner's Handbook. If stipulated in the contract's conditions, the provision of services may also include the provision of any connected facilities or services. Examples of typical services include security, catering, cleaning, travel management, event management, IT services, training, forwarding and consulting.

GDP VARIATIONS

Between 2011 and 2021, India's construction GDP averaged INR 22.4015 billion, with record highs of INR 3175.14 billion in the first quarter of 2021 and record lows of INR 1314.39 billion in the second.

STRENGTHS SWOT ANALYSIS

- Possibilities for employment and training in the construction sector.
- Requirements from the private sector for the development of residential and commercial structures in multi-building complexes in advantageous locations across the nation.
- A well-organized national transportation network.
- The country has an adequate supply of natural resources and raw materials.
- There is now a lot of educated and skilled labor available throughout the nation.

WEAKNESS

- The efficiency of business is decreased by the distance between construction projects.

- A big workforce means expensive expenses
- inadequately specified protocols and procedures for managing construction.
- This sector requires significant financial investment.

OPPORTUNITIES

- There will be more prospects for construction as private dwelling construction keeps rising.
- Public-private partnerships will create more opportunities through public sector projects.
- Renewable energy initiatives will present chances to build dams, solar and nuclear power facilities.
- Financial support for the construction industry, including loans, insurance, and rising earnings for workers
- The government's "Make in India" initiative and FDI policies would boost demand for factories and plants.

THREATS

- Market turbulence and uncertainty that lasts for a long time might hurt prospects and stop training and development facilities from growing.
- Construction may suffer as a result of the current economic climate, the region's political and security environment, and any industry in India is always at risk from delayed legislative enforcement efforts.
- In the construction business, maintaining infrastructure safety is a difficult responsibility.
- New rivals are appearing

1.7 ORGANIZATIONAL PROFILE

One of Paddle Business Consultants' customers is Raj Constructions. After 30 years as BUILDING CONTRACTORS, based in North Paravoor, Ernakulam, Kerala aims to change habitations with more completed constructionism/s. Raj Constructions" is a privately held company that was established in 1993 under the direction of Mr. A.C. Dina raj, who has a wealth of experience in the building industry. The Kerala Government has granted Mr. Dina raj an A' Class Contractor's License, and he has numerous multi-story residential apartments, hospitals, commercial complexes, educational institutions, banks, religious structures, and many other related works to his resume.

OVERVIEW

RAJ CONSTRUCTIONS, based in North Paravoor, Ernakulam, Kerala, has worked as a BUILDING CONTRACTOR for 30 years and aims to improve the environment with the completion of new structures. Raj Constructions is a privately held company that was established in 1993 under the direction of Mr. A.C. Dina raj, who has a wealth of construction industry knowledge. Mr. Dina raj has successfully built numerous multi-story residential flats, hospitals, commercial complexes, educational institutions, banks, religious structures, and many other related works. He holds an "A" licence from the Government of Kerala. Raj Construction offers supply services, suppliers of residential buildings, and commercial constructions (stores, warehouses, and shopping malls) (houses, villas, apartments). They provide consumers a full range of services, including painting and piloting.

Services include:

- Planning and estimates
- Project management
- Land surveying work
- Soil testing

- Architectural design
- Structural design
- Electrification and lighting
- Plumbing and fittings
- Flooring and tiling works
- Exterior and interior painting
- Interior design and implementation
- Cooperation with government bodies

They also support customers with the necessary documentation required for water approval office, electrical energy and local self-government bodies in the company, municipality or panchayat.

AMC (Annual Maintenance Agreement)

AMC is an agreement with Raj constructions to provide maintenance, cleaning and hygiene residential and commercial property management services. A customer who requires the maintenance of their residences or commercial premises in perfect condition throughout the year should have an annual maintenance contract.
An annual maintenance contract with RAJ offers the following: (for package 3999)

- 4 service visits
- 10% discount on work
- 5% discount on all parts
- Free disinfection
- Cleaning at Rs 2.3/Sq. Ft (Best in town)
- Free property management
- Free holding of the key
- Free construction/renovation support
- Free interior design advice
- Discounted landscaping / construction of compound walls / cleaning

- Pest control
- 4 phone visits (only labour and parts billed)

Unique benefits for customers

- 24x7 call centre support for maintenance needs
- One point contact for all maintenance and renovation requirements
- Smooth and problem-free operation of building elements, equipment and systems
- Experienced in-house training professionals
- Improved efficiency of electromechanical devices/systems
- Less water wastage
- Better energy management
- Reduction of fire hazards in buildings
- Improved indoor air quality
- Lower load of microorganisms in buildings
- Increased service life of building elements.

Rental companies:

One of the top companies in the region's construction industry is Raj constructions Services, located in Alava, Ernakulam. Following these decades of expertise and more than 1000 happy clients, they have advanced by introducing rental and property management services throughout Kerala, with a focus on Ernakulam. One of Kakinada Kochi's top real estate firms or property dealers for purchasing, selling, or renting all kinds of properties. Residential and commercial properties, including those in Kochi, Ernakulam, Edapally, Aluva, can be purchased, sold, rented, leased, and more.

Positive signs may be seen in Kochi's real estate market thanks to rising buyer demand and developer supply. The company has established a reputation as a high-calibre function Object () {[native code]} who completes projects on time. The business assumes responsibility for marketing residential and commercial construction projects using a multi-step procedure.

The various phases we are diligently following are:

1) Finding customers
2) Project marketing
3) Increasing sales factor
4) Writing the trade
5) Customer relationship management

MISSION

The main mission of the company is customer satisfaction, reliability, trust and goodwill in the field of construction and passing it on to the next generation.

VISION

The company's main vision is to build a reputation for reliability, trust and goodwill in construction, on-time completion and realistic pricing.

SERVICES

- Planning and estimates
- Project management
- Land surveying work
- Soil testing
- Architectural design
- Structural design
- Construction (labour and material)
- Accumulation

- Electrification and lighting
- Plumbing and fittings
- Flooring and tiling works
- Exterior and interior painting
- Interior design and implementation
- Cooperation with government bodies

They also support customers with the necessary documentation required for approval from the water board, power board and local government bodies in the corporation, municipality or panchayat.

Department profile

DUTIES AND RESPONSIBILITIES OF EACH DEPARTMENT

Below are the various departments in RAJ CONSTRUCTIONS. Each of these divisions is essential to the growth of the business. Proper coordination of each of these departments helps the management to run the business smoothly. Those departments are:

1. HR & OPERATIONS DEPARTMENT
2. FINANCIAL DEPARTMENT
3. PROJECT DEPARTMENT
4. PURCHASE DEPARTMENT
5. MARKETING DEPARTMENT
6. DESIGNING DEPARTMENT

HR & OPERATIONS DEPARTMENT

The duties and responsibilities of the HR department are;

➢ Keep stock records

➢ Internal audit of cost accounting on site

➢ Calculation of wages for construction workers

➢ Maintain site-specific document files

➢ Documentation work related to orders

➢ General administration related to the office

➢ Recruitment, training and orientation

➢ Safety of workers

MARKETING DEPARTMENT

The duties and responsibilities of the marketing department are;

➢ Prepare a list of potential clients.

➢ Schedule and conduct a physical meeting with a potential client.

➢ Study your competitors' marketing strategies.

➢ Prepare and maintain sales funnel overviews.

➢ Prepare a marketing plan and estimate its budget.

➢ Production of marketing and promotional materials.

➢ Communicate with the rental company.

➢ It ensures the survival, growth and reputation of the organization

PROJECT DEPARTMENT

Duties and responsibilities of a project manager are.

➢ Executive clients work on the basis of a project plan.

➢ Plan daily work and monitor HR.

➢ Prepare and maintain receipts and payment report.

➢ Maintain payroll and calculate weekly wages due.

➢ Ensure optimum utilization of men and material.

➢ Budget planning and cost estimation.

➢ Handle petty cash on site.

➢ Meeting with the client and updating the work status at regular intervals

PURCHASING DEPARTMENT

The duties and responsibilities of the purchasing department are;

➢ Get three offers for every purchase.

➢ Collect purchase requisitions from each site manager.

➢ Consolidate the order.

➢ Coordinate with vendors and send orders.

➢ Negotiation with suppliers.

➢ Analyses the benefits of the purchase.

➢ Obtaining products at the most affordable price possible

FINANCE DEPARTMENT

The duties and responsibilities of the finance department are;

➢ Update purchase items.

➢ Checking the workplace expense sheet and updating it.

➢ Updating of accounting transactions and reconciliation of banks.

- ➢ Generating an invoice in Excel and updating it in the record.
- ➢ Coordination of statutory works - GST, Income Tax, TDS, EST, PF etc.
- ➢ Cooperation with statutory departments.
- ➢ Updating the overview of cash transactions.
- ➢ Prepare and support the audit function.

DESIGNING DEPARTMENT

The duties and responsibilities of the design department are;

- Prepare rough drafts and present ideas.
- Plan projects and define budget constraints.
- Study the designs and determine the requirements.
- Conceptualize visuals based on requirements.
- Develop and design concepts and execute creative material as needed.
- Client involvement and control
- Reporting to the client on design matters and obtaining approvals
- Coordination of site surveys

PRODUCT/SERVICES

- **Estimates and planning**:

A plan is a comprehensive recommendation for how something should be done or accomplished. Additionally, it is a detailed skeletal description of a building or other structure that needs to be erected. The estimate provides a general idea of the building construction process's costs.

• Project administration:

Project management is the control of scope, cost, time, quality, and other factors throughout the life cycle of a project using a variety of tools and approaches. When working in the construction sector, you need a wider perspective. A wider variety of restrictions unique to the planning and execution of construction projects are often included in construction management. • Land surveys: The process of surveying includes calculating the separations and angles between places on the earth. Surveys, data, and maps documenting the features of the Earth's surface are produced by surveyors using both conventional tools and digital technologies. For engineering and building projects, this is crucial.

• Soil analysis

The main purpose of soil testing is to determine its bearing capability. The chemical and physical makeup of the soil is examined throughout this process. The foundation's weight must be supported by the soil.

• Architectural style:

The term "building design" covers a wide range of architectural, engineering, and technical applications. A structural engineer, who is typically an architect with a licence, is required for all construction projects.

• Architectural design

A very specialised area of civil engineering is structural engineering. It can be characterised as a collection of techniques or instruments used to establish cost-effective and safe building requirements and guarantee that the proposed structure will be sturdy enough to withstand the desired loads.

• Building (labour and supplies):

Making ensuring building supplies are available when needed at the point of usage is the aim of materials management. During construction, poor material management may raise expenses. Effective materials management can result in significant project cost savings.

• Building up:

Pile building is a columnar foundation member that has been in use since the Stone Age. Modern civil engineering involves driving piles of wood, steel, or concrete into the earth to support structures.

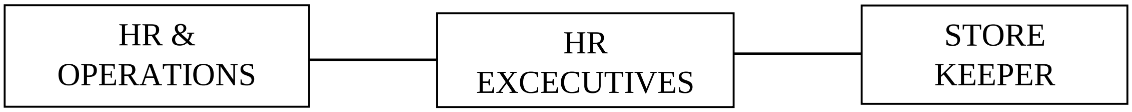
• Electrification:

Electrification is the process of supplying electricity and, in many contexts, of introducing such energy by transitioning from an earlier energy source.

• Plumbing and fittings:

The plumbing system includes the entire system of pipe fittings and appliances were used for water supply and drainage. Different pipes are used in this supply and drainage system.

HR & OPERATIONS DEPARTMENT

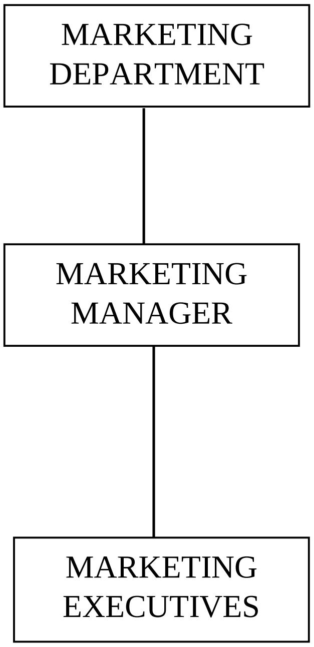


(**Diagram 1.1.1**: represented of hierarchy of HR and operation department)

The department of an organisation that deals with concerns relating to employees is called HR, or human resources. The services the HR department offers to business operations are referred to as HR operations. Administrative services, recruiting, job analysis, and employee relations management are all considered to be part of HR operations.

These human resource management procedures are crucial to achieving the objectives of the company and supporting management and employees in their daily work. Small businesses that do not require a full-fledged HR department frequently choose to outsource the necessary services. Large businesses support internal HR operations, where the range of HR services is broad.

MARKETING DEPARTMENT

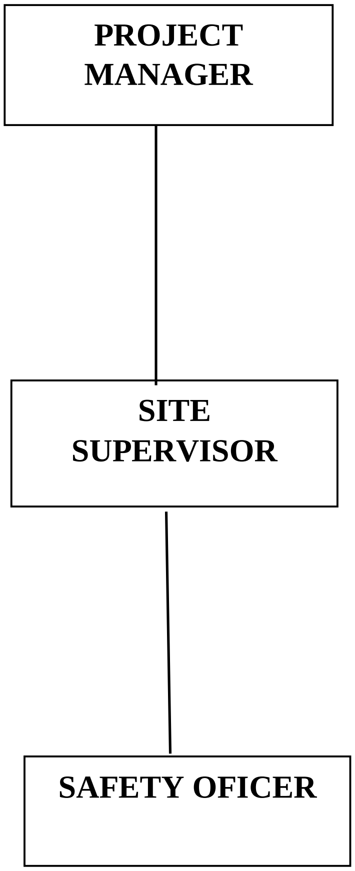


(**Diagram 1.2.1**: represented of hierarchy of Marketing department)

The marketing division controls the selling of your company's goods and services and promotes it. It offers the necessary research to help you pinpoint your target market and other target groups. A marketing director, manager, or vice president of marketing may be in charge, depending on the hierarchical structure of the company. In certain businesses, a vice president of sales and marketing is in charge of both the marketing and sales departments, with a capable manager in charge of each.

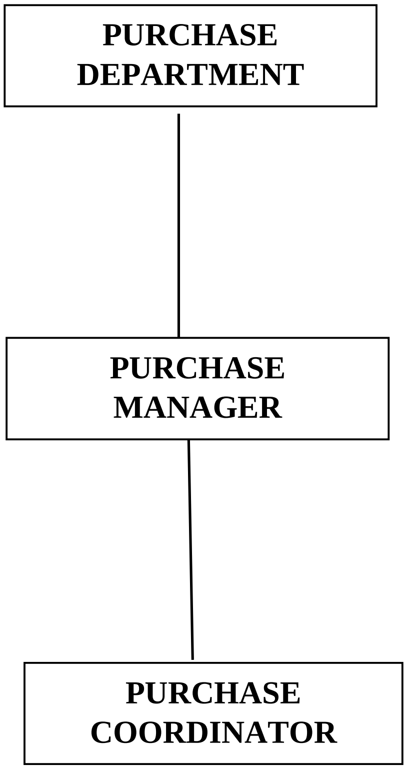
PROJECT DEPARTMENT

A Construct project team is a sophisticated group of decision-makers that assembles for a particular project before breaking up once construction is over.



(**Diagram 1.3.1**: represented of hierarchy of Project department)

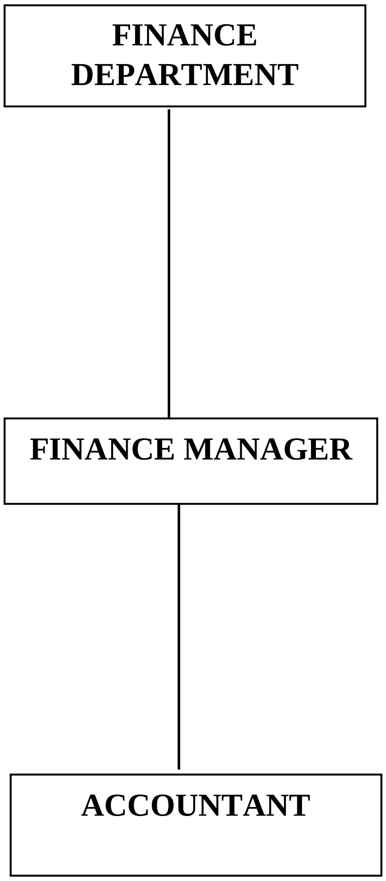
PURCHASE DEPARTMENT



(**Diagram 1.4.1**: represented of hierarchy of Purchase department)

Departments responsible for purchasing support financially sound businesses. They purchase products and services made to satisfy operational needs and offer the best value. In order to maintain the integrity and competitiveness of their organisation, they have implemented procurement policies and processes. By keeping an eye on supply chains and handling time-consuming duties like negotiating contracts with suppliers, purchasing departments keep operations operating smoothly so that the department can concentrate on other things.

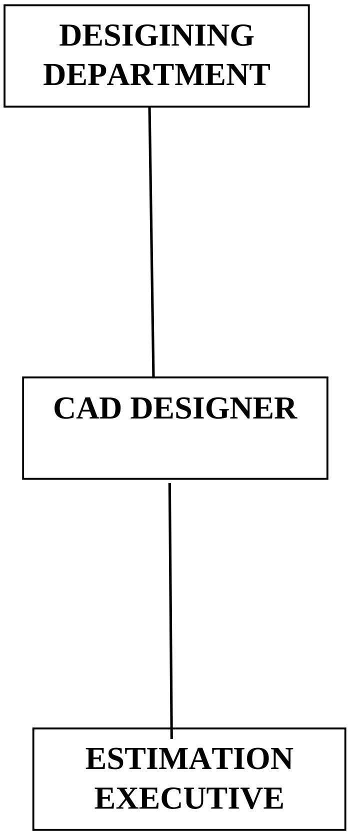
FINANCE DEPARTMENT



(**Diagram 1.5.1**: represented of hierarchy of Finance department)

The Construction Finance Manager is the company's financial representative (CFM). To ensure that the financial statements for construction companies are accurate, they keep track, report, and make important judgments. If the business has an accounting division, they are frequently in control of it. Smaller business managers may also be involved in routine accounting tasks.

DESIGNING DEPARTMENT



(**Diagram 1.6.1**: represented of hierarchy of Designing department)

A building project's design team typically comprises of an architect and engineers. The team itself may frequently be made up of an engineering firm and an architecture firm, each of which employs a number of engineers or architects. On smaller projects, all you need is one architect or engineer to oversee the work. There may be members of each of these groups who are experts in particular fields of engineering or design.

The different projects developed by Raj Construction company are

Ongoing projects

- Nariyah Square (Thrippunithura , Kochi)
- Tri Amitty Woodsville (Thottakkattukara , Aluva)
- Orchid Courtyard (Edayapuram , Aluva)
- Builtech Summit (Palakkad)
- Builtech Ananda Living (Pullode , Palakkad)

Completed projects

- Sabine Hospital **(** Muvattupuzha)
- Benitt Grandee (Thiruvalla, Kerala)
- Golden Plaza **(** Angamaly)
- Builtech Pavilion (Palakkad)
- Builtech Sanctum (Palakkad)
- Medley (Aluva)
- SNGIST (North Paravur)
- Periyar Infinia **(** Aluva)
- Periyar Vista (Aluva)
- Periyar Sarovour (Aluva)
- Saphire (Aluva)
- Harmony Apartments (Aluva)
- Melody Apartments (Aluva)
- Blossom (Thrissur)
- Iris Garden (Thrissur)
- Dr. N International School (North Paravur)
- English Medium School(Kodungallur)
- Techno-Park (Thiruvananthapuram)

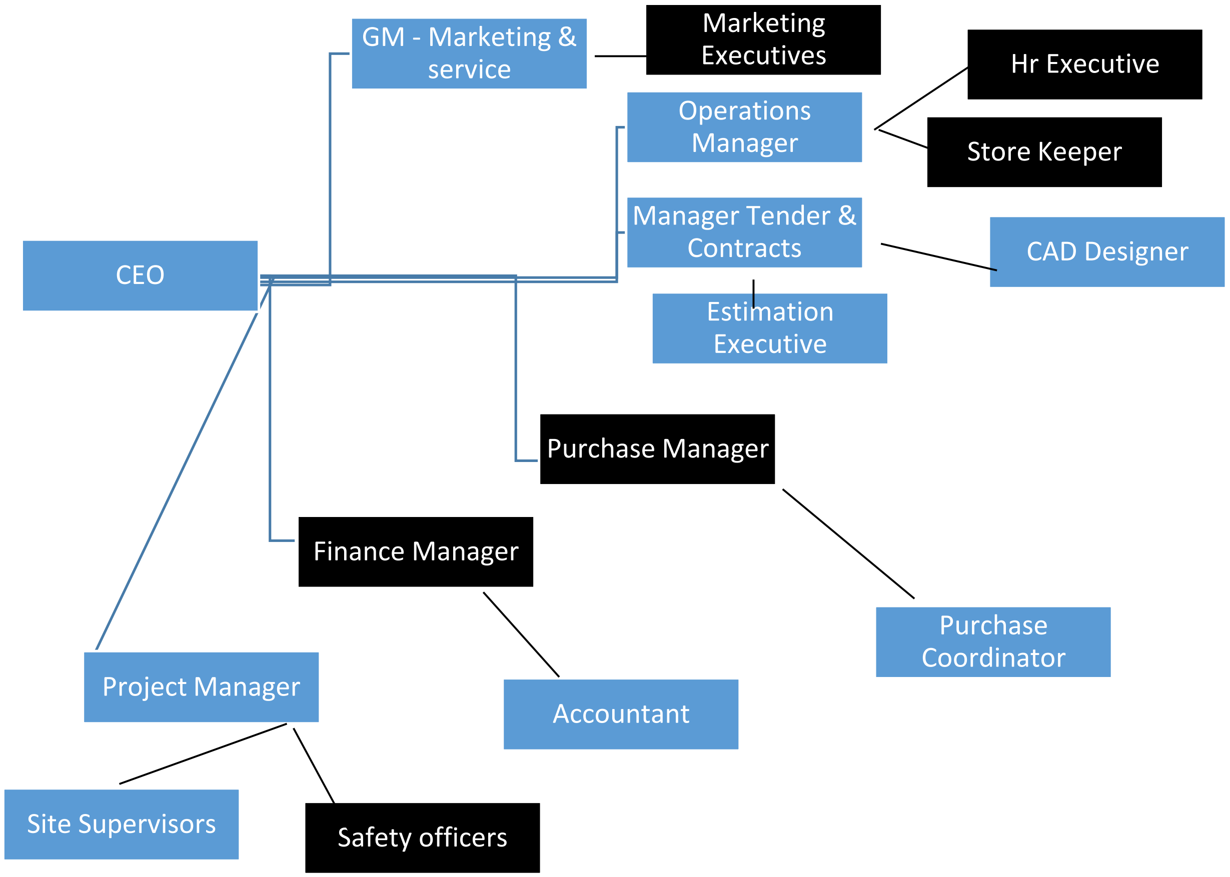
- Uni-Midtown **(** Aluva)

Organizational Structure

Even without it, management would not be able to oversee all of the business's operations; it is the foundation of management. It establishes the framework for other managerial tasks like planning, leading, directing, coordinating, and managing. It provides a way to successfully solve issues in business that relate to policies, practices, operations, and governance. A formal organizational structure of role, relationship, position, and authority makes up an organization. helps with other driving tasks. The success and longevity of the business depend on it because it serves as the cornerstone upon which the entire building is built. For the longevity and stability of a firm, organization is also crucial.

Organizational structure promotes better worker-management relations, increases employee satisfaction and reduces employee turnover. In short, the existence of a good organizational structure is essential for better management. Any running organisation needs a structure in place in order to function effectively. The organisational structure of a company is a hierarchy of its employees and job duties.You may learn a lot about an organization's personality and values by looking at its organisational structure. As a result, it is usually a good idea to learn about and comprehend an organization's organisational structure before doing business with them or starting a new career there.Organizations typically use one of the following structures for management, depending on the organisational values and the nature of the firm.Although the organisation has a certain organisational structure, there may be some departments and teams that, under exceptional circumstances, follow a different organisational structure.

The following diagram shows the organizational structure of Raj Construction Company


GM - Marketing & service
Marketing Executives
Hr Executive
Operations Manager
Store Keeper
Manager Tender & Contracts
CAD Designer
CEO
Estimation Executive
Purchase Manager
Finance Manager
Purchase Coordinator
Project Manager
Accountant
Site Supervisors
Safety officers

(**Diagram 1.7.1:** Organizational structure)

2.1 THEORETICAL FRAMEWORK

Leverage Analysis

We must understand the definition of "leverage" in its simplest form before we can analyses a company's leverage. Describe leverage. A corporation may have two sources of funding. Equity comes first, followed by borrowed funds (loans/debt). We can say a corporation is leveraged if it takes loans to pay for its capital needs.

How does the business use leverage?

The corporation increases its asset base using the borrowed funds. A larger asset base improves the company's "installed capacity." More sales and profits are generated by larger capacity.

Definitions of Leverage: The following definitions are provided to help you understand what leverage is.

- According to Ezra Solomon, "Leverage is the ratio of the net rate of return on capitalization to the net returns on stockholders equity."

- Leverage is the use of an asset or finances for which a business pays a fixed cost or fixed return, according to J. C. Van Home.

The level of debt a company utilizes to finance its assets is another definition of leverage. A firm, asset, or investment is said to be "highly leveraged" if it has more debt than equity. The goal of the application is to obtain greater financial benefits relative to the fixed fees that must be paid, much like in physics, where greater benefits are obtained with less effort. Leverage is the effect of using borrowed money as a source of investment finance to increase the firm's asset base and produce returns on risk capital.

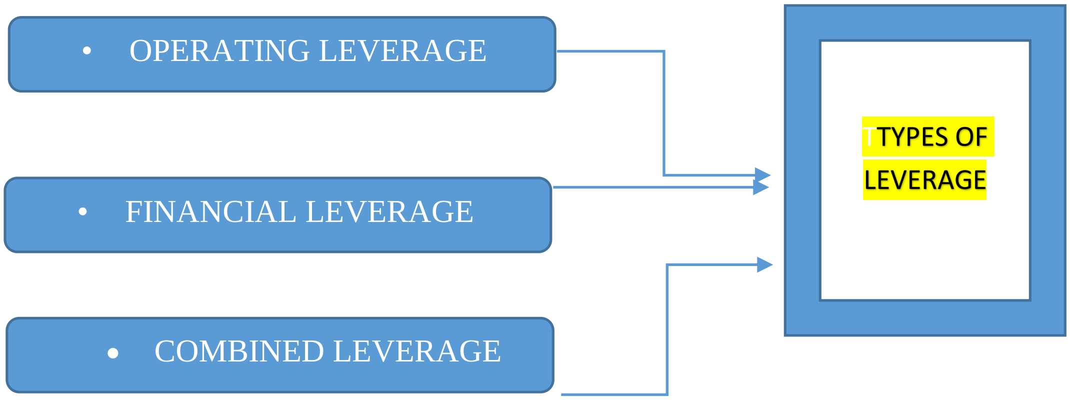
Types of Leverage:

Leverage are the three types:

(i) Operating leverage

(ii) (ii) Financial leverage

(iii) (iii) Combined leverage



(**Diagram 2.1.1** : Types of leverage)

1. **Operating Leverage**: In the operations of a firm, operating leverage refers to the usage of fixed operating expenditures like depreciation, asset insurance, repairs and maintenance, property taxes, etc. However, it excludes interest on borrowed money.Operating leverage increases as the ratio of fixed to variable operating costs increases, and vice versa.

Operating Leverage Level:

EBIT, or earnings before interest and taxes, fluctuates with changes in sales volume. The impact of changes in sales volume on the level of EBIT is assessed using operating leverage.

The method for calculating operating leverage is

OPERATING LEVERAGE = EBIT / EBT

EBIT = NET PROFIT + INPUT TAX WRITTEN OFF + INTEREST AND BANK CHARGES +INPUT TAX REVERSED

Operating leverage is significant because:

1. It provides insight into how changes in sales may affect the company's operating income.
2. A high operating leverage multiplies the impact of a slight change in sales volume on EBIT.
3. A high level of operating leverage points to an increase in EBIT or operating profit.
4. A higher proportion of fixed expenses in a company's overall cost structure leads in high operating leverage, which reduces margin of safety.
5. High operating leverage means that a larger volume of sales is needed to break even.
6. Higher operating leverage and operating risk are encouraged by higher fixed operating costs in a firm's overall cost structure.

2. **Financial Leverage**:

Financial leverage mainly focuses on financial activities that entail raising money from sources for which a company must pay fixed costs like interest payments, loan fees, etc. These sources include capital from preference shares and long-term debt (such as debentures, bonds, etc.).

Leverage Level of Financing:

Leverage in financing refers to the ratio of changes in operating profit, or EBIT, to changes in earnings per share.

The method of calculating financial leverage is

FINANCIAL LEVERAGE = CONTRIBUTION / EBIT

CONTRIBUTION = SALES – VARIABLE COST

EBIT = NET PROFIT + INPUT TAX WRITTEN OFF + INTEREST AND BANK CHARGES +INPUT TAX REVERSED

There won't be any financial leverage if the degree of financial leverage is equal to 1.

Financial leverage is significant because:

- It aids in the financial manager's creation of the ideal capital structure. The ideal

Financial leverage is significant because:

- Capital structure entails a debt and equity ratio at which the overall cost of capital is lowest and the firm's value is highest.
- It raises both financial risk and earnings per share (EPS).
- A high financial leverage shows the presence of a high financial fixed cost
- It assists in balancing the capital structure's financial risk and return.
- It displays the excess of investment return over the fixed cost of using the money.

3. **Combined Leverage**:

Operating leverage illustrates operational risk and is quantified by the proportion of EBIT that changes in response to the proportion of sales that change. The percentage change in EPS caused by the percentage change in EBIT is used to calculate financial leverage, which demonstrates financial risk.

The combined leverage can be measured with the help of the following formula:

COMBINED LEVERAGE = CONTRIBUTION / EBT

CONTRIBUTION = SALES – VARIABLE COST

EBT = EBIT – INTEREST AND BANK CHARGES

EBIT = NET PROFIT + INPUT TAX WRITTEN OFF + INTEREST AND BANK CHARGES +INPUT TAX REVERSED

A firm is taking a very dangerous risk if it has both leverages at high levels. As a result, if a company has a high level of operating leverage, its financial leverage should be kept at a minimum since correct balancing between the two forms of leverage is crucial for maintaining a risk profile that is within reason and maximizing return to shareholders.

Importance of Combined Leverage

- It exemplifies the impact of both financial and operational leverage.
- Combining high operating leverage with high financial leverage is a very

dangerous condition since the combined effect of the two leverages is a multiple of these two leverages.

- The management should exercise caution when operating leverage is high and financial leverage is low because the high risk in the former is offset by the latter.
- The Leverage analysis emphasises analysing the link between the two variables more so than evaluating the variables separately..
- Business firms utilise the assessment of leverages as a technique to assess the risk-return dynamics of their operational and financial activities.
- Leverage is a term that's frequently used to refer to an organization's capacity to utilise resources with fixed expenses (or varied funding sources) in order to boost profits.
- For a corporation to succeed, it is crucial to perform a fast and correct leverage analysis.
- The amount of financial leverage measured in degrees must be more than 1. There won't be any financial leverage if the degree of financial leverage value is 1.

We've all heard that debt is bad. This isn't always the case, though. Debt can be leveraged to make a money-making venture or utilized to establish credit through establishing equity through the purchase of a new property. Another name for debt is leverage. In business, the term "leverage" is frequently used to describe borrowing money to pay for the acquisition of inventory, machinery, or other assets. Businesses employ debt rather than equity to fund those purchases. In order to potentially maximize the return on an investment, leveraging is the process of making an investment utilizing borrowed funds, such as loans, securities, capital, or other assets.

In order to improve the potential return on investment, leverage is a type of investing technique. It can be applied to professional trading, corporate transactions, and even mortgage financing. Financial leverage is the term used to describe the amount of debt a firm employs to fund an asset.

Leverage may boost an investment's profits, but there is a downside: if the investment doesn't work out, it may raise the investment's potential risk and loss.

Using borrowed money (debt) to finance an investment or endeavour is known as leverage. As a result, a project's prospective profits are increased. Leverage increases the possible downside risk if the investment doesn't work out at the same time. Leverage can be used by businesses to fund their assets. In other words, corporations can use debt financing to invest in business operations in an effort to create shareholder value rather than issuing stock to obtain capital. Before using leverage in your business or personal investments, you should be aware of its benefits and drawbacks as with any other financial tool.

Leverage is a sophisticated financial tool with many uses, and it can boost gains as well as losses when utilized by a company or an individual investor. You can grow your company and decide whether you are ready to employ this financial tool by being aware of its advantages and disadvantages.

Advantages

1. The biggest benefit of leverage is that it expands the company's liquidity options because when a business takes out a loan or debt, the lender gives it cash, which may then be utilized for a variety of purposes.These activities include investing in new equipment, creating a new facility, expanding the company's operations through the acquisition of other businesses, and so forth. These actions will improve the efficiency of the company.

2. Another benefit of leverage is that using debt to finance a growing business that needs money for operations can multiply profits for the business.This is due to the

fact that the cost of debt is between 8 and 15%, whereas a rising company's profit rate might range from 20% to 100%. As a result, leverage tends to increase a company's profitability as long as it continues expanding.

3. Another benefit of leverage is that businesses that don't want to dilute their ownership can use this method of financing because, in the case of debt financing or loans, the business must pay back the principal amount at maturity along with periodic interest and there is no risk of distributing equity, giving the business's owners total control.

Disadvantages

1. The biggest drawback of leverage is the possibility that a firm will use too much of it, which could produce issues for the organization because there won't be any advantages to using more leverage than is necessary.As a result, businesses with ordinary or below-average profit margins may employ leverage for negative purposes. Construction, oil extraction, and the manufacture of automobiles are a few examples of industries where this financial risk is particularly significant because they stand to lose the most money if asset values decline.
2. When used improperly, leveraged investments can be fatal to businesses and even lead to their failure. This is especially true for companies with less stable revenue and lower profits.This is another reason why many novice investors are advised to hold off on using leverage until they have accumulated enough experience to do so without suffering such a huge loss to their company.

Businesses and individuals can undertake investments that would otherwise be out of their price range or utilize their available cash more effectively by borrowing money. Some people may discover that they can only afford expensive assets like a home or a college education by utilizing leverage.

Leverage provides a lot of potential benefits, but it also has the potential to cost you much more than the amount you originally borrowed, particularly if you are unable to make your interest payments.

Leverage is used to describe the firm's ability to use fixed cost to increase the return to its owners. It is a tool for measuring Business Risk, Financial Risk and Overall Risk. A company's long term debt in relation to equity is its capital structure. The larger the long term debt, the higher the leverage. There are 3 types of leverages that are financial leverage and combined leverage and operating leverage.

Financial Leverage* Operating Leverage= Combined Leverage.

Capital structure refers to proportion of long-term debt capital and equity capital required to finance investment proposal. There should be an optimum capital structure, which can be attained by the judicious exercise of financial leverage.

In order to run and manage a company, funds are needed. Right from the promotional stage, finance plays an important role in a company’s life. If funds are inadequate and not properly managed the entire organization suffers, it is therefore necessary that correct estimation of the current and future need of capital be made to have an optimal capital structure which shall help the organization to run smoothly. The capital structure is made up of debt and equity securities and refers to permanent financing of a firm.

On the other hand a general dictionary meaning of the term Leverage refers to an increase of accomplishing some purpose. In Financial Management the term leverage is used to describe the firm’s ability to use fixed cost assets or funds to increase the returns to its owners.

APPLICATION AND UTILITY OF LEVERAGE

To understand the applications and utility of leverage in financial analysis it is important to understand the behaviour of degree of operating leverage. It is to be noted that:

- For each level of output there is a distinct DOL.
- At BEP, DOL is undefined.
- If quantity is less than BEP, the DOL will be negative.(but there is no such direct relationship that less quantity leads to decrease in EBIT no such connection to be formed.)
- If quantity is greater than BEP the DOL will be positive (but there is no such direct relationship. DOL may start declining after an increasing quantity beyond certain level and will limit to one (1).
- A large DOL indicates that small fluctuation in the level of operation will produce large fluctuation in the level of operating income.

Operating leverage

Operating leverage associated with investment activities (Assets acquisition). It occurs anytime when firm has fixed costs that must be met regardless of volume in operating leverage, when fixed cost remains constant the percentage change in profit accompanying a change in volume is greater than the percentage change in volume.

A firm with high operating leverage will have a relatively high fixed cost in comparison with a firm with low operating leverage. If a company employs operating leverage, then its operating profit will increase at a faster rate for any given increase in sale. However, if sales fall the firm with high operating leverage will suffer more loss than the firm with the no or low operating leverage. Therefore, operating leverage called “2-edged sword”. It can be ascertained by the help of following formula

$$\textbf{Operating leverage} = \frac{\textit{Contribution}}{\text{EBIT}}$$

Degree of operating leverage

A high degree of operating leverage shows the greater impact on the operating income of the company due to variability in its sales, which is also responsible for variability in its operating profit. It is an important determinant of operation risk. It can be measured by % change in E.B.I.T. due to percentage change in sale.

$$\textbf{Degree of operating leverage} = \frac{\text{\% Change in EBIT}}{\text{\% Change in sales}}$$

Favourable leverage is said to occur when the firm earns more on the assets purchased with the funds than their opportunity use. It is unfavourable when firm doesn’t earn equivalent to the cost of funds

Financial leverage

Financial leverage is primarily concerned with the financial activities which involve raising of funds from the sources from which a firm has to bear fixed charges. These sources include long-term debt (e.g.: bonds, debentures, etc.) & preferential shares etc. Long-term debt carries a contractual fixed rate of interest & obligatory.

As the debt providers have Prior claim on income & assets of a firm over equity shareholders. Their rate of interest is generally lower than the expected return of the equity shareholders. Further, interest on debt capital is tax-deductible expenses. These twophenomenon lead to magnification of rate of return on equity capital & hence E.P.S goes without saying that effects of changes in EBIT (Earnings Before Interest & taxes) on the earning per share are shown by the financial leverage. Financial leverage can best be described as the ability of a firm to use fixed financial charges in EBIT on the firm earning per share.

Financial leverage helps to know the responsiveness of E.P.S. to change in the EBIT. It involves use of funds obtained at fixed cost in the capital structure in such a way that it increases the return for common shareholders.

It is referred to a state at which a firm has to bear fixed financing cost arising from the use of debt capital. The firm with high financial leverage will have a relatively high fixed financing cost compared with low financial leverage. Financial leverage occurs when a company employ the fixed cost of funds debt or preference share capital with a view to maximizing earning available to equity shareholder by a way of a higher income of funds. This technique also called ‘Trade on equity’. Financial leverage influence the financial risk as long as the company’s earnings are greater than its fixed cost it will enjoy a favorable financial leverage position and make earning available to equity shareholders.

Financial leverage can measure with the help of the following formula:-

$$\textbf{Financial leverage} = \frac{EBIT}{PBT}$$

Financial leverage will have a favorable impact on earnings per share a return of equity only. When the firm’s return on investment exceeds the interest cost of debt it is favorable. The impact will be unfavorable if the return on investment is less than interest.

The financial leverage measures the relationship between the EBIT & E.P.S. and it reflect the effect of change in EBIT on the level of E.P.S. The financial leverage measures the responsiveness of the E.P.S. to charge in EBIT If defined as degree of financial leverage-

$$\textbf{Degree of financial leverage} = \frac{\%\text{ Change in EPS}}{\%\text{ Change in EBIT}}$$

Composite Leverage or Combined Leverage or Total Leverage

When financial leverage is combined with operating leverage the effect of change in revenues or earning per share is magnified. Composite/combined leverage refers to extent to which firm has fixed operating cost as well as financial cost. The degree of operating and financial leverage can be combined to show the effect of total leverage on E.P.S associated with given change in sales.

Financial and operational leverage combined results in significant fluctuations in E.P.S. If a corporation uses high levels of operating and financial leverage, even a little change in sales level will have a significant impact on earnings per share.
The following formula can be used to compute it:

$$\textbf{Combining leverage} = \frac{\text{Contribution}}{\text{PBT}}$$

Properly combining financial and operating leverage is beneficial for a company's success, however improperly combining either leverage can be detrimental. Therefore, the corporation should work to balance both leverages.

Capital Structure

The selection of a capital structure is one of the major challenges that businesses face. The choice of capital structure has a significant impact on the company's financial performance. A company's capital structure is the particular ratio of debt to equity that it utilises to finance its activities. Companies can pick from a variety of alternative financial structures. Companies might issue a lot of debt or very little debt, for instance. Leasing finance, using warrants, issuing convertible bonds, signing forward contracts, and trading bond swaps are all alternatives available to businesses. They can also issue an unlimited number of different securities in various combinations.

There are primarily two opposing viewpoints on the firm's capital structure. According to one perspective, capital structure matters for every firm. It stresses finding a firm's ideal capital structure, where the overall capital concept is kept to a minimum while enhancing the firm's overall value.

According to the second viewpoint, there is no perfect capital structure for any company. Any capital structure (any debt/equity ratio) has the same market value for the company, hence the capital structure is unimportant.

RATIO OF NET PROFIT

The link between a company's net profit and its net sales is represented by the net profit ratio. The following formula can be used to compute the net profit ratio: -

Net Profit Ratio = Net Profit/Net Sales multiplied by 100

Objective and Significance:

Net Profit Ratio is determined to determine the company's overall effectiveness. This ratio can be used to assess a company's operational capacity. The increase, when compared to ratios from prior years, demonstrates the effectiveness of the issue.

Particularly true if you invest borrowed funds. You should reserve utilising leverage, at least when it comes to investing, for seasoned professionals until you have experience and can afford to lose money.

Operating Fixed Cost

Businesses are subject to business expenses. Operating fixed costs are one type of expense. Depending on the type of business and installed capacity, each company will have a typical "operational fixed cost." Unfortunately, companies have little control over this cost. There will remain expenses even after the company closes. This class of “fixed-overheads” is known as operating fixed costs. These costs include things like wages, depreciation, repairs and maintenance, rent, insurance, etc.A trading company has low operating fixed costs. For huge industrial firms like steel, cement, auto, etc., operating fixed expenses are significant.

Debt and Equity

The company needs money in order to be able to pay its bills. Both debt and equity can be used by a company to raise financing. Equity may not be enough to cover all costs when costs are high. As a result, the company will have to use bank loans (debt).

Break-Even Point & Utilization of Capacity

A company has achieved break-even when sales are just enough to cover its "operational fixed costs." A company's fixed expenses must increase as it takes longer for it to break even.

Let's assume that a company has the capacity to produce 1,000 pairs of shoes every day. If it manufactures and sells at least 45 units, it will be able to cover its fixed overhead expenditures (break-even).

What causes the leverage effect?

For a company that uses leverage, even a modest change in sales will cause an unbalanced change in profitability.

What causes leverage?

The leverage effect is a result of a company's fixed and variable costs working together. Take into account a hypothetical company with only variable costs and no fixed costs. If a company's sales increase by 5%, its earnings will rise by 5% as well. Profit would have climbed further, nevertheless, if the company had continued to incur some fixed costs.

Fixed cost-plus variable cost equals total cost.

All firms display a leverage effect because no publicly listed company can have fixed expenses that are zero. However, some individuals have more clout than others. Such companies will have more pronounced variations in their earnings for each change in sales.

Leverage Effect Examples

We have mentioned that a combination of fixed and variable expenses causes the leverage effect. To understand the effects of leverage better, we will look at three scenarios.

Fixed Cost is Higher than Variable Cost

- Let's imagine a business earned Rs 100 core in total revenue. Its fixed cost is Rs. 50 Cr. and its variable cost is Rs. 30.

  In this case, the business generated a profit of Rs. 20 core (100 – 50 – 30).

- Consider a scenario in which the company's revenue rose by 5% to Rs. 105 Cr. The fixed pricing will continue to be 50 core rupees. However, let's imagine that as a result of improved output and larger sales, its variable costs will also grow by 5%. (Rs. 31.5 crore to Rs. 30 crore).

  In this case, the company will generate a profit of Rs. 23.5 Cr (105 – 50 – 31.5). Profit has increased by 17.5% as a result (from Rs.20 Cr to Rs.23.5 Cr)

Fixed Cost is Smaller than Variable Cost

- Let's imagine a business earned Rs 100 core in total revenue. Its fixed cost is Rs. 30 Cr. and its variable cost is Rs. 50.

  In this case, the business generated a profit of Rs. 20 core (100 – 30 – 50).

- Consider a 5% rise in the company's revenue to Rs. 105 Cr. The fixed expense will continue to be Rs. 30 Cr. However, an equivalent 5% increase in its variable cost will also occur. (Rs. 50 crore to Rs. 52.5 crore).

  In this case, the company will generate a profit of Rs. 22.5 Cr (105 – 30 – 52.5). This indicates an increase in profit of 12.5%. (from Rs.20 Cr to Rs.22.5 Cr).

Fixed Cost Equals Variable Cost

- Let's imagine a business earned Rs 100 core in total revenue. Its fixed cost is Rs. 40 Cr. and its variable cost is Rs.40 Cr.

  In this case, the company generated a profit of Rs. 20 core (100 – 40 – 40).

- Consider a scenario in which the company's revenue rose by 5% to Rs. 105 Cr. There will be no change to the fixed cost of 40 Cr. Its variable cost, however, will increase by a corresponding 5%. (from 40 to 42 crore rupees).

  In this case, the company will generate a profit of Rs (105 – 40 – 42). The profit has increased by 15% as a result (from Rs.20 Cr to Rs.23 Cr)

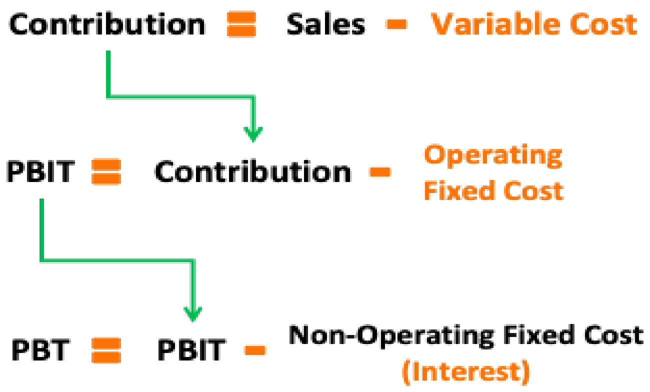
Any rise in sales will result in an excessive increase in profits when a company's total cost is divided between fixed and variable components. However, these companies will experience a steep reduction in profits as their sales fall (measured in percentage terms).

This disproportionate impact of changes in sales on a company's profitability is known as the leverage effect. All very capital-intensive companies are significantly impacted by leverage (Like Manufacturing – mainly steel, cement, auto, among others)

Profit is Sales minus Variable Cost minus Fixed Cost.

Contribution is equal to Sales minus Variable Cost.

Profit is Contribution minus Fixed Cost.


Contribution = Sales - Variable Cost
PBIT = Contribution - Operating Fixed Cost
PBT = PBIT - Non-Operating Fixed Cost (Interest)

(**Diagram 2.2.1**: Formula arrives of PBT)

In order for businesses to take advantage of the leverage effect, their cost structure must include both fixed and variable costs. If you keep variable expenses the same, it's like studying for a test but not being ready for it.

Maintaining merely variable costs, for instance, would be similar to a marathon runner training just a few weeks before the event. Yes, continuous training is expensive, but running a marathon while always in training is like "maintaining fixed costs." However, its benefits will become clear when you do better throughout the race.

Examples of Fixed Costs for a Company

Fixed Operating Costs

- Salaries

- Amortization and Depreciation (D&A)

- Lease or Rent
- Insurance
- Real estate taxes
- Upkeep and Repairs
- the Conversion Fees
- Royalty
- Compensation or supply

Variable operating costs

- Interest Costs

Variable expenses

- Material Consumption Cost
- Buying Stock-in-Trade
- Use of supplies and spares
- Fuel and Power Cost

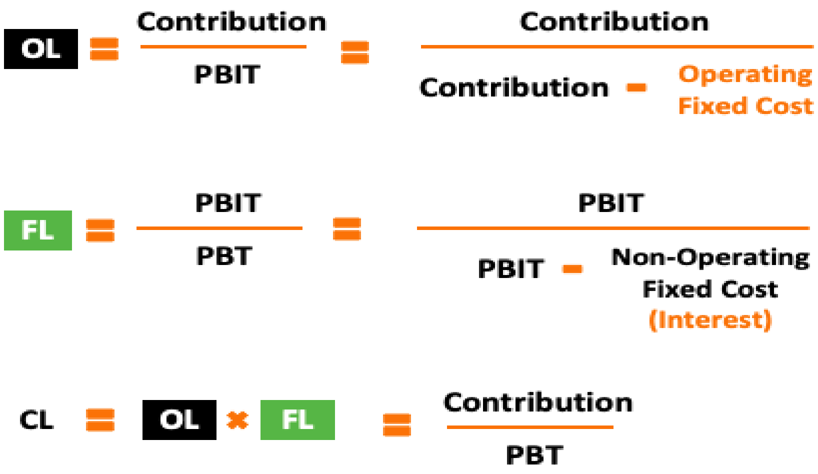
- Shipping and handling fees (Transportation)

- Commission, rebates, and discounts, etc.

We also know that when sales increase, organisations with a mix of fixed and variable assets experience a disproportionate increase in earnings. So can investors or business owners quickly ascertain the increase in earnings by looking at the rate of sales growth?

It is possible to get a good estimate, yes. Understanding the company's "leverage multiples" is necessary to do this. Since there are two categories of fixed costs, there are two main types of leverage: operating fixed expense**s** and non-operating fixed costs.

- Operating Leverage (OL)
- Financial Leverage (FL)
- Combined Leverage (CL)



$$\text{OL} = \frac{\text{Contribution}}{\text{PBIT}} = \frac{\text{Contribution}}{\text{Contribution} - \text{Operating Fixed Cost}}$$

$$\text{FL} = \frac{\text{PBIT}}{\text{PBT}} = \frac{\text{PBIT}}{\text{PBIT} - \text{Non-Operating Fixed Cost (Interest)}}$$

$$\text{CL} = \text{OL} \times \text{FL} = \frac{\text{Contribution}}{\text{PBT}}$$

(**Diagram 2.3.1** : Formula arrives of Types of leverage)

- Leverage Ratio Usefulness (OL, FL, and CL)
- The amount by which a change in sales will affect PBIT will be shown by OL.
- FL will specify the PBT change in dollars for each adjustment to PBIT.
- CL will describe the extent to which changes in sales will affect PBT.

Example:
For a firm, think about the following leverage ratios:

- OL = 4,

- FL = 5,

- CL = 20

For this company, a 10% rise in revenue will translate into an increase in PBIT of:

- The formula for calculating PBIT growth is as follows: Sales Growth x OL (10% x 4) = 40%.

What effect will a 40% rise in PBIT have on PBT?

- PBT Growth is equal to PBIT Growth times FL, or 40% times 5 equals 200%.

If sales increase by, PBT will climb.

PBT will increase if sales rise by 10% as follows:

- PBT growth is equal to Sales Growth x CL (10% x 20 = 200%).

Key differences between operating and financial leverage

The key distinctions between financial and operating leverage are as follows:

Operating leverage is the utilisation of assets with fixed expenses in a business' operations. Leverage is the utilisation of fixed financial charges that carry money in a company's capital structure.

- Operating leverage examines the impact of fixed operating costs, whereas financial leverage assesses the impact of interest fees.

- Financial leverage impacts EBIT and EPS, whereas operating leverage affects sales and EBIT.

- The cost structure of the company leads to operating leverage. On the other hand, financial leverage is caused by the company's capital structure.

- Low operating leverage is preferable because high BEP and low profitability result from increased DOL. A moderate rise in EBIT, on the other hand, won't result in a significant gain in shareholder profit unless the ROCE is higher than the after-tax cost of debt, making high DFL the optimum option.

- Financial risk is caused by leverage, whereas operating leverage causes business risk.

- Leverage, a performance metric for financial analysis, is used to assess the risk-return connection for alternative capital structure strategies. Changes in financial variables like sales, costs, EBIT, EBT, EPS, etc. are accentuated. Leveraged businesses are those with debt in their capital structures; businesses without debt in their capital structures are known as firms without leverage. The result of multiplying DOL and DFL is DCL, or the amount of combined leverage.

The importance of financial and operating leverage

Operating and financial leverage are two significant quantitative metrics used by financial professionals to assess shareholder returns and share market value. Because it concentrates attention on shareholder earnings and the market price of the stock, leverage is regarded as being superior to the other two techniques. Leverage or stock trading are used by a company to boost stockholder profits.

Financial leverage is significant in two ways:

- **Planning for capital structure**: Capital structure addresses the debt-to-equity ratio. It aids in selecting the capital structure with the highest EPS as the ideal one.
- **Profit Planning**: The degree of financial leverage has an impact on earnings per share. Fixed cost funds will aid in boosting the amount of profits available to shareholders as the company's profitability rises.

Leverage is crucial for profit planning, therefore. However, a company cannot keep raising debt capital to boost shareholder earnings because leverage carries the financial risk of adversely influencing profits. When a company uses more and more loan money, the financial risk is up. Additionally, a company that experiences extremely fluctuating profitability cannot afford to use more loan capital. These two levers have a significant acceleration or retardation on EBIT and EPS, thus a corporation should aim to balance them.

- An organization's growth benefits greatly from the proper mix of operating and financial leverage, whereas the wrong mix can backfire, as will be illustrated below: A extremely high level of operational and financial leverage will indicate a very dangerous business. The firm has significant fixed operational costs and fixed interest payments when both leverage ratios are high. Profits for shareholders as a result are highly variable.
- A company shouldn't have strong financial leverage if it has high operating leverage. It need to have minimal financial leverage.

- Similar to how a company with minimal operating leverage will benefit from being heavily leveraged if it has enough lucrative prospects for borrowed money.

  Leverage can be analysed in the manner described below: precisely as the ratio of the percentage change in one variable to the percentage change in another. Here, the independent variable is the denominator and the dependent variable is the numerator.

The study of leverage is significant for the following reasons.

- **Measurement of operational risk**

Operational risk is the possibility that a business won't be able to pay its fixed operational expenses. It gives a general notion of how changes in sales may affect the operating income of the business. Higher fixed operating costs are a sign of higher operational leverage and, consequently, higher operating risk for the company because operating leverage is dependent on fixed operating costs. High operating leverage is beneficial while sales are increasing but detrimental when sales are declining.

- **Financial risk measurement**

The danger of a company's inability to pay its fixed financial expenses is known as financial risk. A high level of operating leverage makes a modest change in sales volume have a larger impact on EBIT. High fixed financial expenses are a sign of higher operating leverage and consequently higher financial risk because financial leverage depends on fixed financial costs. High leverage is beneficial when operating profit increases and detrimental when it decreases.

- **Risk management**

Operating and financial leverage have a multiplicative rather than an additive relationship. Increased fixed expenses in the company's overall cost structure result in significant operating leverage, which lowers the margin of safety. To reach the appropriate amount of total leverage and level of risk for the company, operating leverage and financial leverage can be combined in a variety of ways.

- **Proposal of a suitable mix of capital structure**

The amount of EBIT under various financial plans should be tied to earnings per share in order to build an acceptable mix of capital structure or financial plan. A bigger sales volume is required to break even when operational leverage is significant. Analyzing the link between EBIT and earnings per share is one common method of analysing the leverage effect.

- **Increase profitability**

Leverage is the effort or attempt a company makes to use fixed-cost assets and fixed-return capital resources to produce a high result or greater benefits. Increased operating leverage and operating risk are supported by higher fixed operating costs in the company's overall cost structure. It helps to understand the reasons why the company is not producing more profit by ensuring the best possible use of capital and fixed assets in order to boost the profitability of the organisation.

Leverage is a crucial investing strategy because it enables businesses to set a ceiling for growing their operations. It can be used, for instance, to advise against business expansion once the expected return on new investment is less than the cost of borrowing. Recognising leverage, the process of trading to increase the possible returns on your investments. However, certain financial products, such as options or futures, can also be utilised to achieve the same goal. Leverage typically entails borrowing money to maximise returns.

Leverage is a crucial instrument for increasing returns for businesses that routinely deal with different types of risk and can obtain unheard-of interest rates on loans. Consequently, a lot of businesses that you might want to invest in already exist, even though you may never want to play games with borrowed money (or at least you shouldn't). Therefore, it probably pays to be aware of how leverage functions.

Market leverage

Leveraging your assets increases your earnings, but it also increases your risk of losing money. Only when you have some level of relative assurance about your investment is leverage a wise course of action. This confidence typically translates into limited returns in real life. Due to the market's propensity to recognise a particular product rapidly, it is almost always guaranteed to return virtually nothing.

Leverage in businesses

But understanding leverage is crucial outside of the financial industry as well. The balance sheets of the company should be considered before making any investment, whether it be in stocks or corporate bonds. However, a traditionalist may believe that debt is terrible and that businesses without it are the most successful. In this scenario, borrowing money would only be a wise tactical use of the company's resources to increase earnings potential. Additionally, putting off a purchase simply to avoid debt may be a mistake that harms the long-term viability of the business.

Judicious application of clever strategy leverage

Leverage is not just risk for the sake of risk, to reiterate. It shouldn't be, at least. To maximise earnings, risk should ideally be calculated at the appropriate moment. Any firm that uses its ability to borrow strategically and intelligently is likely to be a good company to invest in. Knowing how and when to leverage is essential to the healthy operation of any business.

2.2 LITERATURE REVIEW

A valuable method for evaluating specific research-related papers is the literature review. It's comparable to empirical literature. The following literature reviews have been compiled based on the topic.

According to Subramanyam (2018) looked into how financial leverage affects a company's Limited coromandel packing profitability. The period covered ranges from 1985–1986 to 2013–2014. According to the regression analysis's findings, there is a weak but positive link between ROCE, DOL, DFL, and DTL. Although not statistically significant, the DOL, DFL, and DTL coefficients are positive in relation to ROE, and the total model is statistically significant. The operational and combined leverage of Coromandel Packaging Limited were found to be sufficient.

According to Joji Abey (2018) examined the variables influencing the financial success of Indian automakers. Sector. 23 firms that Sampling expressly selected are represented in the sample. The trial will last for nine years. Techniques for multiple regression are employed to analyse the correlation of the data gathered. The findings revealed a connection between age and the costs to income ratio and the profitability ratio of assets turnover. In his analysis of the connection between monetary success and leverage of TVS Motor Company. The metrics mean, SD, CV for analysis, CAGR, and ANOVA are employed together with other statistical techniques (one way). And it has been done so simply by measuring the effect with a linear regression model. The lengthy investigation lasted ten years, from 2006 to 2016. The findings showed that the business's operational, financial, and combined leverage

According to Olang (2017) examined how financial leverage affects a company's profitability. Contains in the NSE The sample size was established using the deliberate sampling technique. 30 listed companies. The study found that, in contrast to liquidity and expansion, the size of the business has a statistically significant large impact affect on listed enterprises' profitability. There was no statistically significant data for opportunity.

According to Khedkar (2015) Over a four-year period, looked into the relationship between leverage and the financial success of Dr. Reddy's Laboratories. Ratio analysis and correlation analysis were used for this investigation's goals. To assess the financial performance of the company, metrics such as the debt to equity ratio, current ratio, quick ratio, total Return on Investment, and assets turnover ratio were used. The ideal degree of leverage is not maintained. Regarding profitability, Dr. Reddy's Laboratories performs admirably, but not while utilising leverage because the amount of leverage is not maintained at a desirable level..

According to Weston and Brigham (1969), " Higher percentage changes in profits both up and down translate into higher fixed expenses and lower variable costs. [Weston] 86.

According to the Bank of Jamaica (2005), The following qualities should be present in liquid assets: diversification, residual maturities suitable for the institution's particular cash flow requirements, ease of conversion to cash, and low credit risk.

According to Tooba Raheel (2015) the relationship between financial leverage and the profitability of Pakistani oil and gas companies listed on the KSE was examined. The study covered five businesses from 2007 and 2012. No indication of a substantial connection between the EPS and the DOL, DFL, or DCL was discovered by the study. Fixed operations mean that costs and the choice of the company's financing mix do not significantly affect profitability. Capacity of listed firms on the KSE.

According to S. Sarang Waykole (2015) Leverage's impact on return on equity has been studied in detail. Information was gathered from the three-year financial statements. Analysis is done using mathematical methods like average and percentage. The results show that the sales over the previous three years resulted in combined operational and financial leverage. Leverage is not advantageous due to fluctuations. It also tended to be higher. It is also recommended that businesses seek to boost income to counteract the negative consequences of higher leverage.

According to Shilpa Peswani (2011) studied how leverage affected the profitability of two of the best FMCG companies, Marico Industries and Britannia Industries Ltd. Marico Industries Ltd. was found to have more debt than Britannia Industries Ltd. through research. Despite being able to offer its investors a high return on equity, a leveraged corporation's profitability was comparable to that of the other company.

According to Kumar(2014) It was looked on how leverage restricted to India and Bata's profitability related. The data collection process took seven years. The averages, ratios, and other statistics used to analyse the data show that there is a statistically significant difference between the research findings from the study and a particular amount of operating leverage that has been obtained together with a favourable ROI. Leverage and return on investment have a proven favourable link. It implies how much money Bata has. India's level of leverage wasn't ideal. Bata has been advised to update its capital structure, which must have the proper ratio of shares to debt. Furthermore, money was borrowed to boost return on investment.

According to Jagdish and Raiyani (2011) examined the impact of financial risk on capital structure decisions made in 59 Indian businesses over a ten-year period, from 1997 to 2007, in their study. The statistical methods used for analysis of T, F, and other tests included mean, standard deviation, coefficient of variation, and compound growth rate.

According to Kalpana in 2014 an examination of leverage analyses and how they affect the profitability of certain steel companies listed on the BSE. The investigation is built on the secondary data. To evaluate hypotheses using a comparison of variance, different approaches such as correlation and significance testing are used (ANOVA). based on this study. It is found that the EPS and the DOL, DFL, and DCL are connected in a negative way. The conclusion shows that the use of debt and fixed Cost expenses would reduce the profitability of the firms. It proposes that companies should use less borrowed capital in order to improve their fixed expenses and profits structure. Patel (2014) investigated how leverage affected Sabra Dairy's profitability.The Study examined the relationship between return on capital employed (ROCE), Return on equity (ROE), return on assets(ROE) and earnings per share(EPS) With operating leverage, financial leverage and total leverage. The result of Regression indicates that the coefficient of DOL, DFL and DCL is positive with ROCE but not significant. It has concluded that Sabra Dairy has used the Operating leverage, financial leverage and combined leverage satisfactorily.

According to Kumar Mohan M.S., Vasu. V, and Narayana T. **(2016)** The financial health of the firm was analyzed utilizing different ratios, the mean, the standard deviation, and Altman's Z score technique,. The study found a positive correlation between profitability ratios and liquidity ratios. Aside from the Z score number and return on total assets, which demonstrate the company's health.

According to Tayyaba(2013) A small number of oil and gas companies' profitability and the use of leverage were examined. The investigation is conducted over a six-year period. The return on asset, return on equity, return on investment, earnings per share, and the level of operating and financial leverage as independent variables were the dependent variables in this study. The results of statistical approaches such as regression, correlation, descriptive analysis, and others showed that DFL and ROA have a positive association, whereas DOL and ROA have a negative link. It was determined that there is a positive correlation between financial leverage and profit.

According to Soni Bindiya (2013) examined the impact of operating and financial leverage on EPS using correlation analysis. To further explore how debt affects the wealth of the companies, the paper also examines how the debt-to-equity ratio influences the EPS of the aforementioned corporations. The findings show that operating leverage has a substantial association with profitability while satisfying the modest expectations, while financial leverage does not.

According to D. Vijaya Lakshmi (2013) analysed the elements affecting leverage in the Indian metal sector. A panel data analysis technique was used to analyse the data. According to the survey, the primary elements impacting the leverage of Indian enterprises in the metal industry are profitability, size, and tangibility.

According to Dr. Sukhdev Singh (2013) studied how capital structure strategies were impacted by leverage and profitability at a few Indian telecommunications companies. It also looked at how leverage and profits per share are related, and it illustrates how the income The ability of the organization is impacted by fixed operating expenses and financial charges. Additionally, studies have shown a link between EPS, the debt-to-equity ratio, and how effectively a company uses loan capital. ANOVA and the one-way t-test have both been used in the analysis. Kurtosis and skewness have also been used to analyze data distribution flatness or peaking. The conclusion was that leverage. Additionally, there is a connection between profitability and expansion, and leverage affects capital.

According to M. Krishna Moorthi (2012) examined a few Indian steel companies' leverage analyses. The examination will focus on four steel businesses that met the requirements. The study used secondary data, and after the data were evaluated using means, standard deviations, and one way ANOVA, it was shown that companies in the same industry consistently reported higher profits. Over the course of the investigation, several debt equity stances were taken.

According to Olayinka Akinlo (2012) analysed the financial performance and leverage of Nigerian businesses. 15 sectors were used to choose the 66 companies for the study. The analysis employed the Chi Square Test. Leverage and the size of the control variable are different variables. Profitability is the dependent variable, though. The study's findings demonstrated the conflict between profitability, leverage, and risk. This implies that Nigerian businesses are less profitable as a result of their usage of debt. This suggested that businesses would have to lower their debt levels in order to increase their profit margins.

According to Archer and D'Ambrosio (1972), When fixed costs as a percentage of total costs grow, the company's operating leverage rises as well. (Archer, p. 421) Schultz and Schultz (1972) claimed that "depending on a quantity that depends on a fixed expense Results of a variable basis (sales base) will not be equated with those of a profit-and-loss outcome. The extent to which these outcomes are really broadened depends on how much fixed costs are relative to the potential revenue. This leverage is frequently referred to as operating "[Stuftz, 1986].

According to Shehla Akhtar (2012) analysed the connection between financial performance and financial leverage using data from Pakistan's petroleum and energy sector. The purpose of the study was to determine how financial leverage affected the financial performance of the oil and corporate energy sectors. Twenty open constrained companies in the petroleum and energy industries. The Karachi Stock Exchange divisions that are traded made up the sample size. The study was conducted between 2000 and 2005. Although it was considered a variable, financial leverage was recognised as a unique factor that affected the financial performance of the fuel and energy industry. SPSS software was used to concentrate on the significant association between the variables. The findings revealed a strong relationship between leverage and financial performance.

According to Sanjay J. Bhayani in 2011 2011 An empirical examination was conducted into Maruti Suzuki India Limited's financial leverage, profits, and dividends. The investigation was carried out over an eight-year period. Ratio analysis methods are employed, and a hypothesis based on the correlation coefficient has been researched. The study's findings indicate a relationship between DFL and EPS, but there is no statistically significant difference between the two, although the correlation coefficient between DFL, DPS, EPS, and DPS showed a significant difference at the 5% level of significance.

According to Carelton (1997) A wider range in the rate of return on capital was nevertheless possible due to the company's lower level of financial debt. Therefore, the main factor impacting leverage is variation rather than rate of return. When examining the debt-to-equity ratio, they found that it was inversely correlated with return on investment.

According to Bhat in 1980 A study was done on the financial leverage of Indian manufacturing companies. Several factors, including firm size, income variety, growth, profitability, operating leverage, and dividend distribution policy are used to analyze the financial leverage. The researcher comes to the conclusion that a firm's size has no bearing on its financial leverage. A company is more likely to use a lower amount of debt when financial leverage and EBIT are taken into account. This essay examines the troublesome connection between corporate growth and debt. Leverage and dividend distribution policies go hand in hand. On some types of debt, the quantity and operating leverage have no bearing.

According to Baxter (1967) The difference in net operating earnings would affect leverage. Compared to companies with erratic revenue streams and a debt-financed financial structure, those with typically solid revenue sources are less vulnerable. The study found a connection between leverage level and net operating earnings volatility that was detrimental.

According to Ravichandran, M, and Subramanium, M. (2016) The main goal of this study is to assess Force Motors Limited's viability, stability, and profitability. A number of financial measures, such as the profitability ratio, solvency ratio, comparison assertions, graphs, etc., can be used to assess the operational state of the company. This analysis shows that the company has the resources needed to cover its debts and commitments. The business can further improve its financial performance by cutting administrative, selling, and other costs.

According to Krishnaveni, M., and Vidya, R. (2015) have selected 87 companies from a total of 242 companies in the capital line database to talk about the standard current ratio of the tractor industry as it relates to the automobile industry and four other sectors, including engine components, lighting, gears, and ancillaries, with standard norms. The study's conclusions apply to the tractor industry since its current and liquidity ratios are comparable to those of the other four sectors', even though other industries must improve their ability to pay back loans in order for the financial components to be reinforced.

According to Anu B. (2015) made an effort to investigate the relationship between market price per share, capital structure indicators, and market price per share of selected companies in the industry. According to the study's findings, all three businesses are consistent with the notion that debt-equity and MPS are related.

According to Surekha B. & Krishnalah K.Rama (2015) This study demonstrates the success of Tata Motors. It can be said that the company has a great inner strength. By using the most effective capital gearing and lowering administrative and financial costs for the firm's expansion, the company can further increase its profitability.

According to Huda Salhe Meften & Manish Roy Tirkey (2014) have examined Hindustan Petroleum Corporation Ltd.'s financial analysis. The research is supported by secondary data. The business has a great gross profit ratio, and its upward trajectory indicates that production costs are being used efficiently. The good net profit for the 2010–2011 fiscal year—which is eight times higher than the prior year—indicates a decrease in operating expenses and a significant amount of net sales that is made accessible to the company's shareholders.

According to Idhayajothi, R et al (2014) The primary purpose of this study is to evaluate Ashoka Leyland Limited's financial performance in Chennai. The outcome indicates that financial performance is sound and also makes recommendations for enhancing financial performance by lowering various expenses.

According to Jothi, K. & Geethalakshmi, A. (2016) This study uses statistical tools including ratio analysis, mean, standard deviation, and correlation to assess the financial health and profitability of a few Indian automakers. According to the study, there is a strong correlation between profitability and both short-term and long-term capital.

According to Mathur Shivam & Agarwal Krati (2016) Ratio analysis is a great, scientific technique to evaluate a company's financial performance. Due to its innovative ideas and technological advancements, the company has won numerous prizes and achievements. These indicators assist investors in choosing the best firm to invest in for anticipated returns. According to the report, Maruti Suzuki Limited is superior to Tata Motors Limited.

According to Kumar Neeraj & Kaur Kuldip (2016) made an effort to assess the connection between India's industrial size and profitability. Both a cross-sectional analysis technique and a linear regression model were employed to analyse the association for the years 1998 to 2014. For profitability analysis, the ratios of net profit to total sales turnover and net income to net assets plus working capital have both been used, whereas total sales turnover and net assets have both been used as indicators for form size.

Although there is no correlation between business size and profit in cross-sectional data, the time series analysis revealed a positive association between firm size and profitability.

According to Srivastava Anubha (2014) To determine the relationship between the automobile sector indices and the market index, data analysis was conducted utilising a top-down method, including economic, industrial, business, and technical analysis. Mahindra and Mahindra's strong stock market position will draw investors, which could result in growth and expansion. Therefore, it is necessary to consider Tata Motors and Maruti Suzuki's stock and expansion.

According to Huda Salhe Meften and Manish Roy Tirkey (2014) examined Hindustan Petroleum Corporation Ltd.'s financial analysis. The research is supported by secondary data. The company's gross earnings are exceptional. The profit ratio and trend are rising, which is a glaring sign of production cost efficiency. The strong sew profit for the 2010–2011 fiscal year—eight times that of the prior year—indicates a decline in traffic, lower operating costs, and a significant amount of net revenues that are available to shareholders.

According to Buvaneswari .R & Kanimozhip (2014) to research the creditworthiness of a few Indian vehicle manufacturers. The Z-score analysis method was created by Professor Edward Altman of New York University to forecast a company's demise or insolvency. He combined the set of five financial ratios to assess the firm's financial health.

According to Idhayajothi, R et al (2014) This study's major goal is to evaluate Ashoka Leyland Ltd.'s financial results in Chennai. The outcome demonstrates that the financial performance is also sound, and it is suggested that financial performance be increased by cutting various costs.

According to Shende Vikram (2014), In order to understand their market offerings and customer expectations, new and existing Indian vehicle manufacturing companies would find this research to be helpful. Identification of factors impacting consumer performance for a certain automotive category is the study's main objective**.**

According to Azhagaiah R. & Gounasegaran (2014) The rise of India's automotive sector has been attributed in part to the country's per capita real GDP growth. The structure of the central government would change to include task teams for taxation, land acquisition, labour reform, and industry-specific concerns related to the development of auto skills.

According to Mistry Dharmendra S. (2012) is a study that examined the impact of different parameters on the profitability of particular organisations. He came to the conclusion that key variables with a favourable or negative impact on profitability included the debt ratio, inventory ratio, and total assets. It advised enhancing solvency, decreasing the fixed financial load on the business's profit, and giving shareholders a trading advantage on equity.

According to Murlidhar, A. Lok Hande & Rana Vishal S. (2013) The author attempts to assess Hyundai Motors' performance in terms of exports, domestic sales, production, and profit after tax. To illustrate the company's performance over time, pie and bar charts are employed.

According to Dawar Varun (2012) a study that examines the impact of several fundamental aspects of company strategy, such as dividends, debt, and capital expenditures, on the stock prices of Indian automakers. According to the study, capital structure is not related to stock prices, although dividend and investment policies are.

According to Zafar S.M. Tariq and Khalid S.M.'s (2012) study, ratios are determined using financial statements that are generated in accordance with the regulations for managing depreciation and inventory value. A ratio is a straightforward numerator-to-denominator comparison that does not provide an accurate and comprehensive view of the organisation. The promoters may have skewed the results and neglected to mention other elements that have an impact on the operation of the company.

According Ray Sabapriya (2012) reported that she analysed a sample of automakers to assess the success of the industry using indicators, such as the trend of sales, production, and export, etc. over the years 2003–2004 to 2009–2010. The study finds that the automotive industry has already gone through disruptive phases debt burden, underutilization of assets and liquidity instability. The researcher suggested an improvement labor productivity, labor flexibility and capital efficiency for future industry success.

According to Maheswari, V. (2015) attempted to analyze the financial health of Hero Honda motors Limited identified three factors namely liquidity position, solvency and profitability position based on a study from 2002 to 2010 using ratio analysis.

According to Surekha B. & Krishnalah K.Rama (2015) this study reveals the prosperity of Tata motors. He can to state that the internal strength of the company is remarkable. The company can continue to improve profitability through optimal capital inclusion, reduction of administrative and financial costs to company growth.

According to Sarangi Pradeepta K et al (2014) conducted a study to predict the future trend of automobile industry. The study highlighted that six different experiments were conducted over a period of 12 years estimated values for the next 3 years. In each experiment, the graph was plotted using a spreadsheet and then a linear trend was drawn and extended to calculate future values. The study highlighted that six different experiments were conducted over a period of 12 years estimated values for the next 3 years. In each experiment, the graph was plotted using a spreadsheet and then a linear trend was drawn and extended to calculate future values.

According to Takeh Ata & Navaprabha Jubiliy (2015) The author developed a conceptual model to explain the relationship between capital structure and financial performance, in which capital structure is an independent variable on value
is measured by four indicators, including financial debt, total debt capital, total debt assets, and interest coverage ratio, and financial performance is a dependent variable whose value is measured by four indicators, including return on assets, return on equity, operating profit margin, and return on capital employed. The researcher chose 13 significant steel sectors and employed a variety of statistical methods, including SPSS22's anova, correlation matrix, and standard deviation, to evaluate their hypotheses.

According to Agarwal claims that the Nidhi (2015) study compares the financial results of Maruti Suzuki and Tata Motors Ltd. The study's financial facts and data come from numerous annual reports of companies. The liquidity and leverage effects of both businesses are examined. Four ratios are taken into account when analysing leverage position: the debt-to-equity, debt-to-equity, total debt, and ownership ratios. The outcome demonstrates that Tata Motors must raise the proportion of its own fund in order to improve long-term financial viability.

CONCEPTUAL REVIEW

Leverage is the use of funds or assets in the capital structure of a corporation for which the company must bear fixed expenses or fixed income. Utilizing that amount of money will aid businesses in increasing profitability. It is riskier if the firm's earning ability declines since higher external borrowings brought on by increased leverage are more likely. To put it another way, the advantage of leverage is only achieved when the ROI outweighs the cost of borrowing from outside sources.

In other words, if the company can make more money than the interest rate on the amount borrowed, leverage will be advantageous. There are three types of leverage. These words are operating leverage, financial leverage, and combined leverage. Operating leverage is a form of leverage brought on by the use of fixed-cost assets, whereas leverage is a form of the leverage effect brought on by the use of capital sources with fixed costs/returns. In addition to these two forms, "composite leverage" can always be calculated to determine the combined effect of leverage. Leverage is a term that is frequently used in relation to working capital today to indicate how sensitively the return on investment is affected by changes in the amount of current assets.

Operating Leverage

Operating leverage is the capacity of an organisation to use constant operating costs to increase the impact of fluctuations in sales on its Earnings before Interest and Taxes (EBIT). It makes reference to the firm's use of fixed costs in ongoing business operations. A business must cover the fixed costs no matter the level of output. Even in the absence of revenues, the company must cover these expenses. Because even a small change in sales will result in a corresponding change in operating profit, the corporation may only use a bigger percentage of fixed costs compared to variable costs when sales are increasing. The level of operating leverage depends on the percentage of fixed costs in the cost structure. Operating Leverage is calculated determined by means of a break even or cost volume profit Analysis. If a firm does not have fixed costs, then there will be no operating leverage.

Financial Leverage

Financial leverage is the capacity of an organisation to use fixed financial expenses to magnify the effects of changes in EBIT on the earnings per share. Financial leverage, commonly referred to as trading on equity, is the use of the company's capital structure's fixed sources of funding, such as debt and preference shares, in addition to the owners' equity. Leverage in finances can be helpful or harmful. When a business is able to create a return greater than the cost of borrowing, it is considered to be using leverage favorably.

When fixed cost funds are employed differently. There is a fixed rate of interest paid on these long-term debts (debentures, etc.) The interest must be paid regardless of revenue because it is a responsibility. Additionally, a specified dividend rate is borne by the preference share's capital. The dividend, however, is only paid when the company has excess profits. Equity Stockholders shall be entitled to the balance of the net earnings after payment of interest and preference dividends. Financial leverage is used to use fixed cost capital to improve the income accessible to equity shareholders. If the revenue earned by employing fixed cost funds is more than their cost (interest and /or preference dividend) then it will be to the benefit of equity shareholders to use such a capital Structure.

A corporation is said to have favorable leverage if its earnings exceed its cost of borrowing. If, however, it does not provide a profit that is comparable to the debit charges, it will be referred to as an unfavorable form of leverage. Each company is required to decide on its own how much money will be borrowed. If a company's debt load is excessively large relative to its capital stock, it is considered to be trading on its equity. On the other hand, if a company's debt load is comparatively low to its capital stock, it is said to be trading on thick equity.

3.1RESEARCH DESIGN

Research Methodology

The process of gathering data and information for the aim of making decisions is referred to as research technique. This investigation is analytic in nature. Research that uses analytical techniques to evaluate data and facts, analyze and understand leverage analysis of Raj Construction Company employing ratio analysis and leverage analysis principles is known as analytical research.

INSTRUMENTS USED FOR THE STUDY

Following tools were used for analyzing the data:

- Profit and loss statement of Raj construction company
- Balance sheet of Raj construction company

3.2 DATA COLLECTION

Accurate and reliable data is necessary for the analysis of financial viability of the company. There are mainly two types of data:

- Primary Data
- Secondary Data

Primary Data: The primary data has been collected from the finance department.

Secondary Data: The major source of data for this project is profit and loss account and balance sheet of 3-year period, i.e., 2017-2020. Additional information was collected from text and internet sources.

3.3 TOOLS AND TECHNIQUES

- Correlation

Are used whatever necessary to show the data calculations with necessary theoretical explanations.

SOFTWARE USED OF ANALYSIS

MS-Excel, SPSS has been used for calculations.

3.4 PERIOD OF THE STUDY

The study was for a period of 2 months, i.e., from 14th July, 2022 to 08th September, 2022

3.5 HYPOTHESIS FOR THE STUDY

Operating Leverage

Ho: There is no relationship between Operating Leverage and Net profit

H1: There is relationship between Operating Leverage and Net profit

Financial Leverage

Ho: There is no relationship between Financial Leverage and Net profit

H1: There is relationship between Financial Leverage and Net profit

Combined Leverage

Ho: There is no relationship between Combined Leverage and Net profit

H1: There is relationship between Combined Leverage and Net profit.

DATA ANALYSIS AND INTERPRETATION

4.1 EARNINGS AFTER TAX

In reality, leverage analysis can shed light on how much the profitability of a company will fluctuate in reaction to variations in its sales.

Particulars	**2017 - 2018**	**2018 - 2019**	**2019 - 2020**
Sales	51851982.09	42567139.03	122957082.55
Variable cost	51567284.38	40772248.89	117819151.13
Contribution	284697.71	1794890.14	5137931.42
EBIT	5237183.78	5985157.5	8380945.55
Interest	1684531.98	3759101.12	3323435.9
EBT	3552651.8	2226056.38	5057509.65
Tax	47085.00	63361.4	81182.00
EAT	3505566.8	2162694.98	4976327.65

(**Table 4.1.1**: Showing the Earnings After Tax)

Interpretation

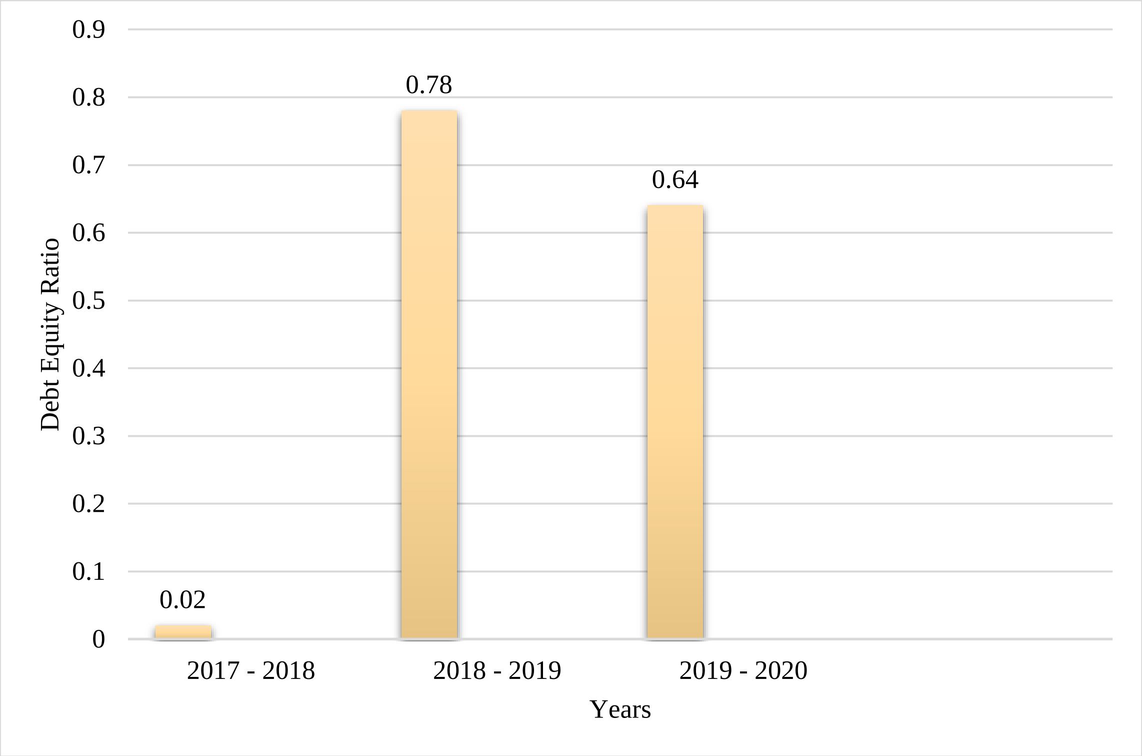
According to the calculations, Raj Construction Company's EBIT is rising. The ability of the company to produce sufficient earnings is the source of the rise in EBIT for this business. By expanding sales and fostering a good relationship with their consumers, this business is developing into a big and prosperous one.

4.2 Debt to Equity Ratio

Total debt is divided by total equity to determine the debt-to-equity ratio. The gearing ratio is another name for the debt equity ratio.

Year	**Total Debt**	**Total Equity**	**Debt Equity Ratio**
2017 - 2018	101000.00	4554075.00	0.02
2018 - 2019	3390573.94	4335188.77	0.78
2019 - 2020	4306811.94	6711788.73	0.64

(**Table 4.2.1:** Showing the Debt Equity Ratio)



(Diagram 4.2.1: Showing the Debt Equity Ratio)

Interpretation

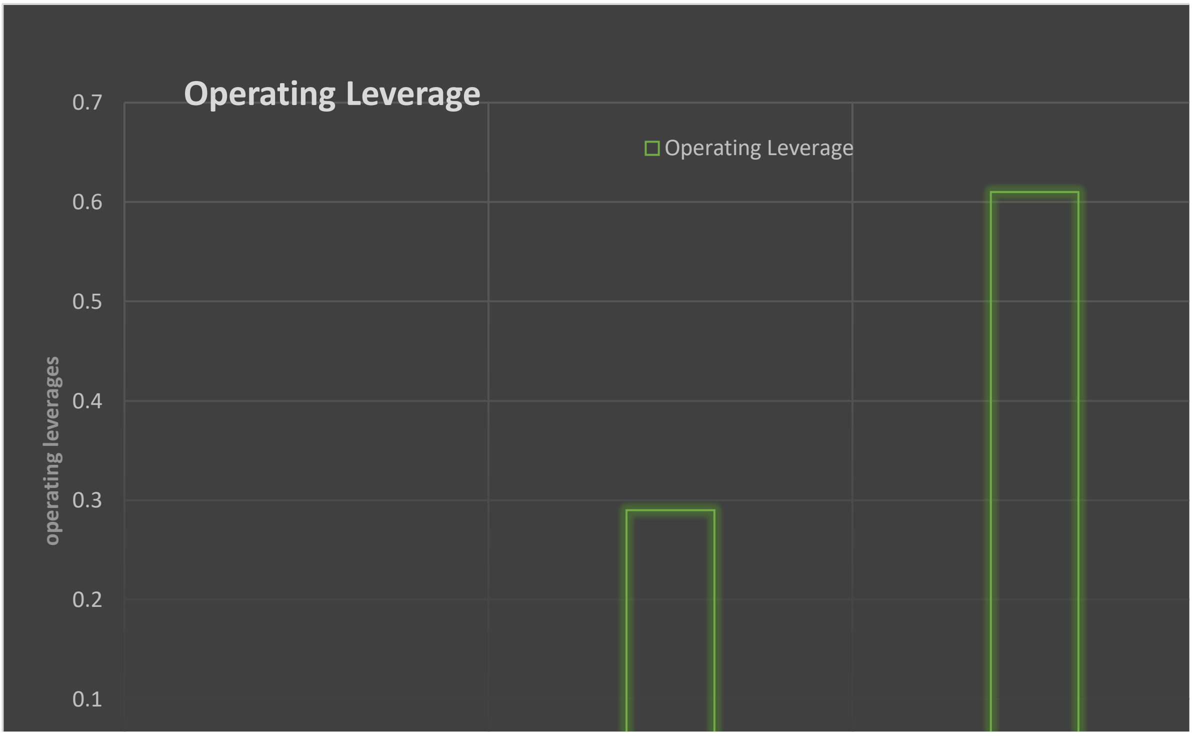
D/E ratios under 1 are typically regarded as being quite healthy, whereas values of 2 or more may be regarded as being detrimental, as research by Raj Construction Company demonstrates. The low D/E ratio of this company should also be taken into consideration because it can indicate that the company is not taking use of debt financing and its tax benefits. A high debt-to-equity ratio may be advantageous in 2018 and 2019 since it indicates that a company is employing leverage to boost equity returns while maintaining the ability to fulfil its debt obligations.

4.3 Operating Leverage

You may find the operating leverage by dividing the contribution by the EBIT. A cost accounting formula is another name for it.

Year	**Contribution**	**EBIT**	**Operating Leverage**
2017 - 2018	284697.71	5237183.78	0.05
2018 - 2019	1794890.14	5985157.5	0.29
2019 - 2020	5137931.42	8380945.55	0.61
Average	2405839.76	6534428.93	0.31

(**Table 4.3.1**: Showing the operating leverage)



(**Diagram 4.3.1**: Showing the operating leverage)

Interpretation

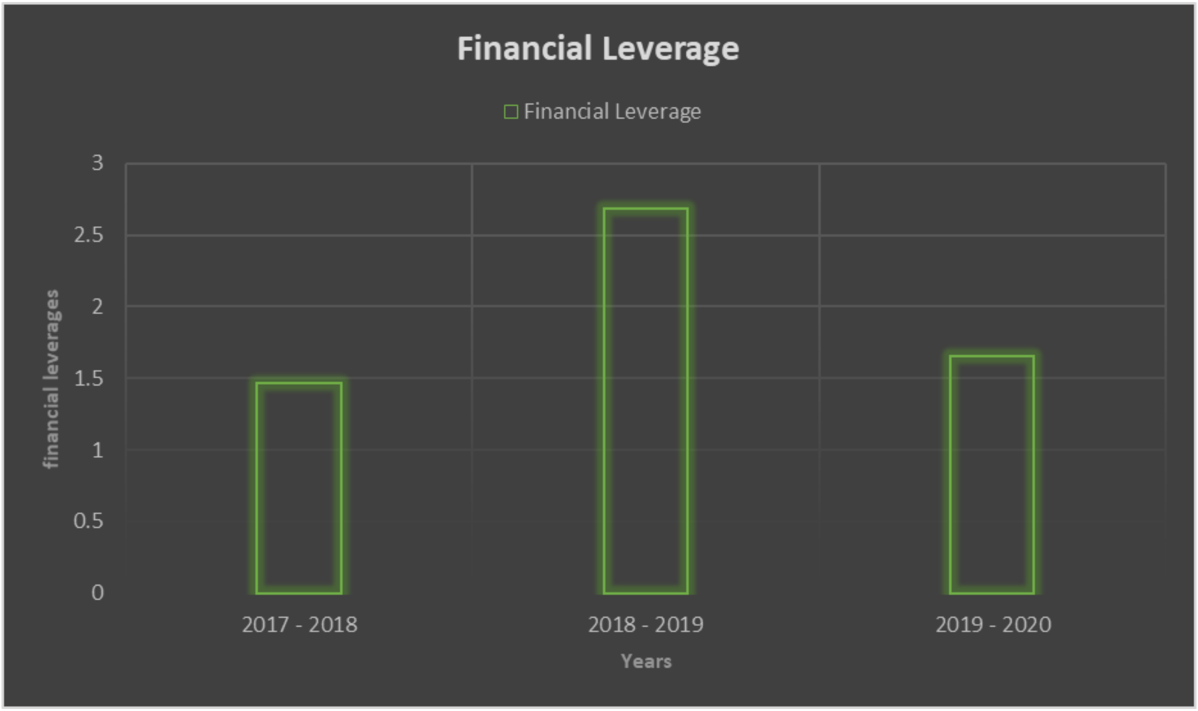
This analysis shows that Raj Construction Company's operating leverage is rising. The company's operating leverage is high for the year 2019 to 2020, and the reason for this is that the company's contribution and EBIT are rising year over year. High operating leverage enables the business to generate significant profit. This business has significant operating leverage and a large proportion of fixed expenditures in total expenses.

4.4 Financial Leverage

By dividing EBIT and EBT, one may compute the financial leverage. It is sometimes referred to as a leverage or equity trading.

Year	**EBIT**	**EBT**	**Financial Leverage**
2017 - 2018	5237183.78	3552651.8	1.47
2018 -2019	5985157.5	2226056.38	2.68
2019 - 2020	8380945.55	5057509.65	1.65
Average	6534428.93	3612072.6	1.80

(Table 4.4.1: Showing the financial leverage)



(Diagram 4.4.1: Showing the financial leverage)

Interpretation

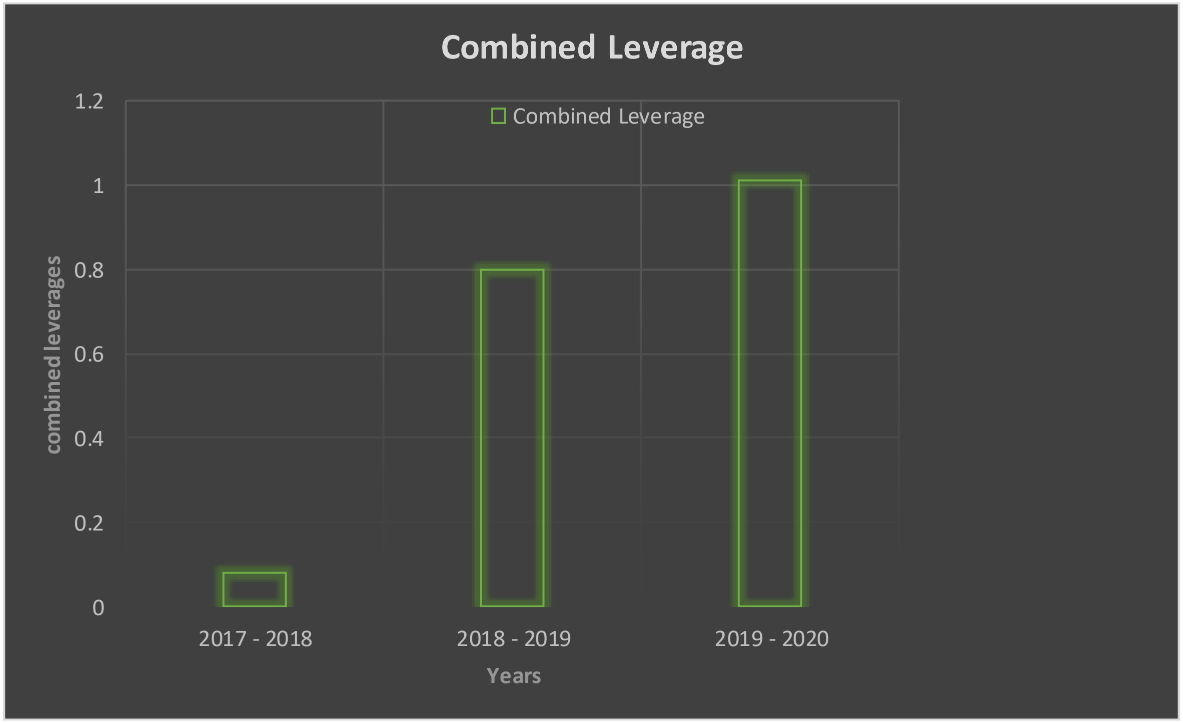
The period from 2017 to 2018 was deemed to have the lowest financial leverage in this analysis. The company's declining sales are the cause, and as a result, it is swiftly losing money and running the risk of defaulting on its debt. Because the corporation exhibits considerable financial leverage in that year 2018–2019 the scenario changes. The reason for that is the sales of the company is growing

4.5 Combined Leverage

You can determine the combined leverage by dividing the contribution by the EBT. Along with fixed financial expenses, it also includes fixed operating expenses.

Year	**Contribution**	**EBT**	**Combined Leverage**
2017 - 2018	284697.71	3552651.8	0.08
2018 - 2019	1794890.14	2226056.38	0.80
2019 - 2020	5137931.42	5057509.65	1.01
Average	2405839.76	3612072.6	0.66

(Table 4.5.1: Showing the combined leverage)



(Diagram4.5.1: Showing the Combined leverage)

Interpretation

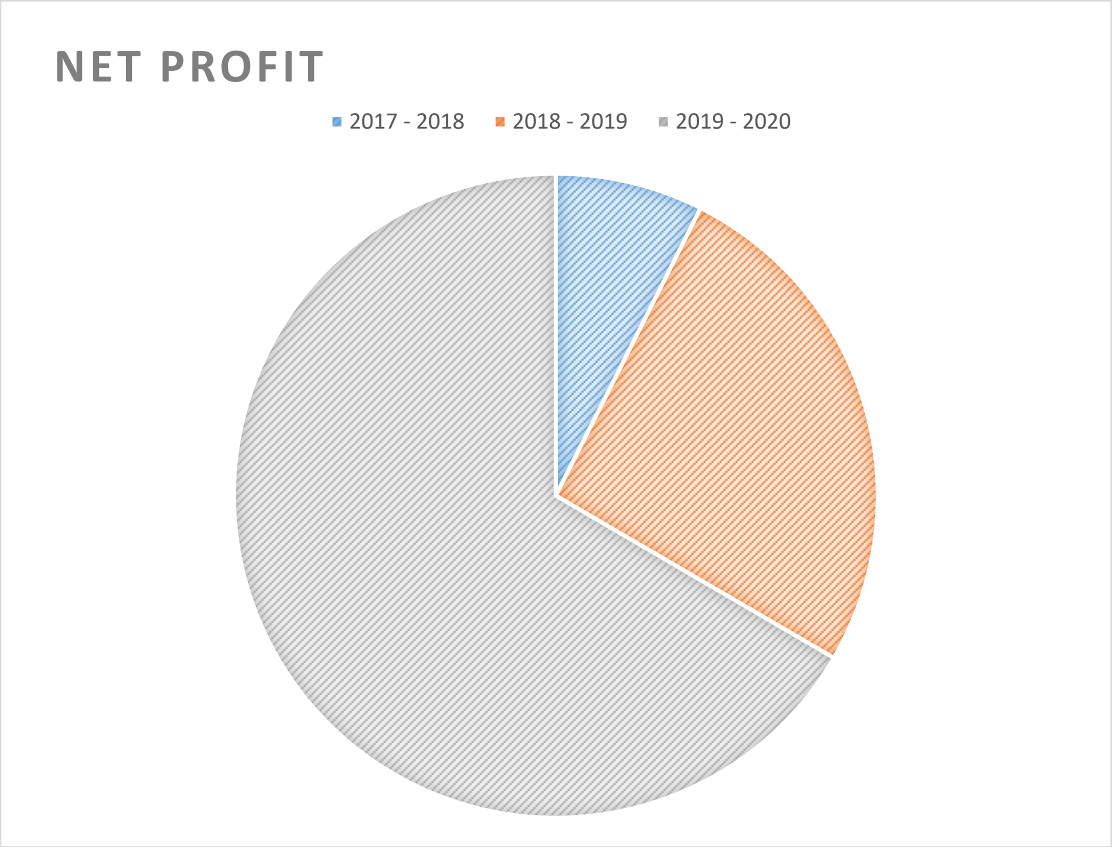
Here, a rising trend can be seen in the Raj Construction Company's combined leverage study. This company's comparatively high combined leverage level is viewed as riskier than a corporation with less combined leverage since high leverage entails higher fixed costs for the company.

4.6 Net profit

The amount of money your business earns after deducting all operating, interest, and tax expenses over a given period of time.

Year	**Net Profit**
2017 - 2018	622136.80
2018 - 2019	2175662.22
2019 - 2020	5577505.65
Average	2791768.223

(**Table 4.6.1**: Showing the net profit)



(Diagram 4.6.1: Showing the net profit)

Interpretation

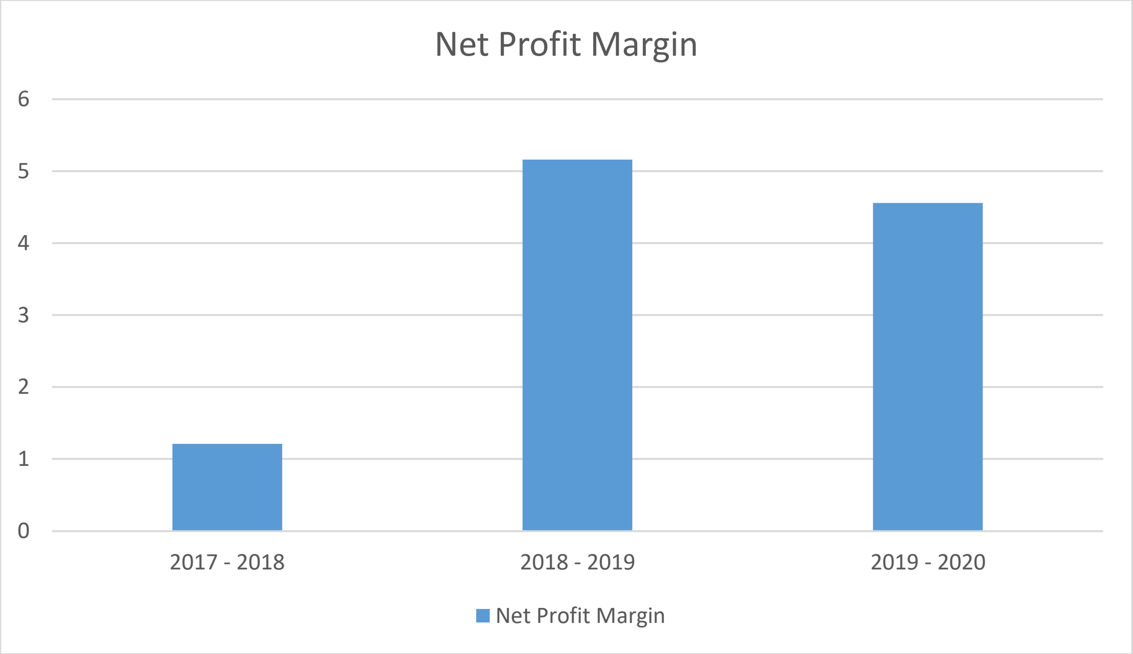
Raj Construction Company's net profit analysis reveals an increase in net profit. The way a corporation uses its resources is reflected in the cause for Net Profit Growth. Therefore, steady net profit increase indicates a company's financial stability. The corporation can use the profits to diversify its activities and grow its business, as evidenced by the growth in net profit.

4.7 Net Profit Margin

Net Profit Margin is the net profit divided by revenue. It shows what portion of total income is profit.

Particulars	**2017 - 2018**	**2018 - 2019**	**2019 – 2020**
Net Profit	0.62	2.17	5.57
Total Revenue	0.51	0.42	1.22
Net Profit Margin	1.21	5.16	4.56

(**Table 4.7.1**: Showing the net profit margin)



(**Diagram 4.7.1**: Showing the net profit margin)

Interpretation

The analysis of the company's net profit margin reveals that Raj Construction Company's net profit is rising over time. We can see how the company's overall revenue has grown over time when we look at it.

As a result, the company has a healthy net profit margin and a sound financial position. By monitoring the growing and falling components of its net profit margin, the company will be able to assess how well its current processes are doing and anticipate earnings based on revenue.

4.8 Analysis to assess the leverage analysis

Year	**Operating Leverage**	**Financial Leverage**
2017 - 2018	0.05	1.47
2018 - 2019	0.29	2.68
2019 - 2020	0.61	1.65

(**Table 4.8.1** Showing the operating leverage and financial leverage)

Year	**Operating Leverage**	**Financial Leverage**
2017 - 2018	Low	High
2018 - 2019	Low	High
2019 - 2020	Low	High

(**Figure 4.8.1** Showing the operating leverage and financial leverage)

Businesses with low OL can achieve break-even points at substantially lower capacity utilization rates. This kind of business (Low OL) has a lot of room to grow by employing borrowed funds. Companies with low OL are seen as safe and as having a significant potential for growth. They can increase their bank borrowing while keeping safe levels of combined leverage (CL).

Companies with low OL are able to maintain high FL while keeping CL within acceptable bounds. The fact that lenders are constantly prepared to give money to these businesses is one of their best qualities. Second, the amount of debt that the business takes on is essentially entirely under its control.

4.9 Analysis of leverage

Year	**Sales**	**EBIT**	**Interest**	**EBT**
2017 - 2018	51851982.09	5237183.78	1684531.98	3552651.8
2018 - 2019	42567139.03	5985157.5	3759101.12	2226056.38
2019 - 2020	122957082.55	8380945.55	3323435.9	5057509.65

(**Table 4.9.1**: Showing the analysis of leverage)

Interpretation

If a corporation is operating with significant leverage, a proportionate change in sales will produce an EBIT change that is more than proportionate. This circumstance is evident in the analysis of Raj Construction Company. EBIT rises if sales increase while the company is operating with significant leverage. Sales at Raj Construction Company are on the rise. Additionally, the aforementioned table demonstrates how the company's operating leverage is always fluctuating. For safety purposes, it is advisable that the organization maintain stability at a lower level when it comes to operating leverage.

4.10 Analysis of Operating Leverage

Year	% Change in Sales	% Change in EBIT	DOL
2017 - 2018	0	0	-
2018 - 2019	9284843.06	747973.72	0.08
2019 - 2020	80389943.52	2395788.05	0.02

(**Table 4.10.1**: Showing the analysis of operating leverage)

Interpretation

According to the analysis, EBIT Margin is a crucial efficiency ratio. It is an important part of the foundational analysis of Raj Construction Company. These ratios are used to evaluate how well this business is managing its cost and revenue structures to increase profitability. Increasing net income, successful cost management, and high productivity are the main causes of the increase in EBIT. A high value shows how successful and effective the Raj Construction Company is.

4.11 Analysis of Financial Leverage

Year	**EBIT**	**EBT**	**DFL**	**D/E Ratio**
2017 - 2018	5237183.78	3552651.8	1.47	0.02
2018 - 2019	5985157.5	2226056.38	2.68	0.78
2019 - 2020	8380945.55	5057509.65	1.65	0.64

(Table 4.11.1: Showing the analysis of financial leverage)

Interpretation

It is evident that, with the exception of the years 2018–2019, the D/E ratio is on the decline in the years 2019–2020. D/E ratios under 1 are typically regarded as being quite healthy, whereas values of 2 or more may be regarded as being detrimental, as research by Raj Construction Company demonstrates. The low D/E ratio of this company should also be taken into consideration because it can indicate that the company is not taking use of debt financing and its tax benefits. On the other hand, the tendency for financial leverage is fluctuating.

4.12 Analysis of Combined Leverage

Year	**DOL**	**DFL**	**DCL**
2017 - 2018	0	1.47	0
2018 - 2019	0.08	2.68	0.21
2019 - 2020	0.02	1.65	0.03

(Table 4.12.1: Showing the analysis of combined leverage)

Interpretation

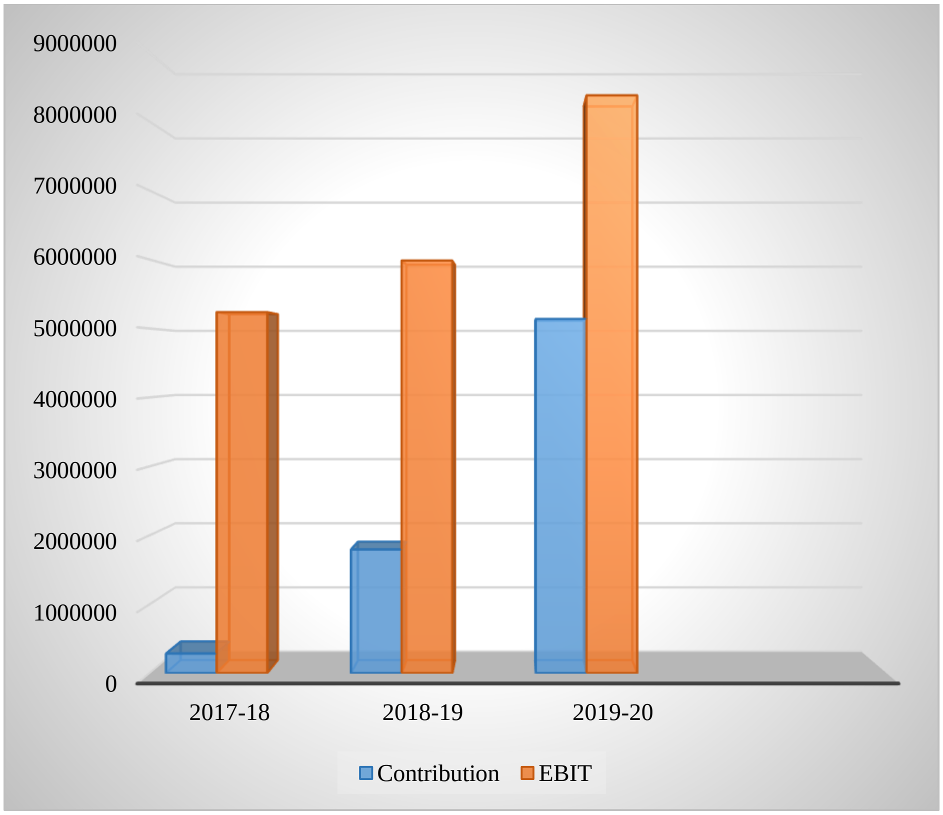
The combined leverage level is displayed in the above table. It displays a mix trend. In other words, the overall leverage is changing. This company's relatively high level of combined leverage is considered as riskier than a firm with less combined leverage because high leverage entails higher fixed expenses for the company, making it riskier than a firm with less combined leverage in the year 2018–2019.

This analysis highlights the company's leverage, sales, and income positions. Leverage is a significant issue that affects the firm's profitability.

4.13 Degree of Operating Leverage

Year	**2017-18**	**2018-19**	**2019-20**
Contribution	284697.71	1794890.14	5137931.42
EBIT	5237183.78	5985157.5	8380945.55
Ratio	0.05	0.29	0.61

(Table 4.13.1: Showing the degree of operating leverage)



(Diagram 4.13.1: Showing the degree of operating leverage)

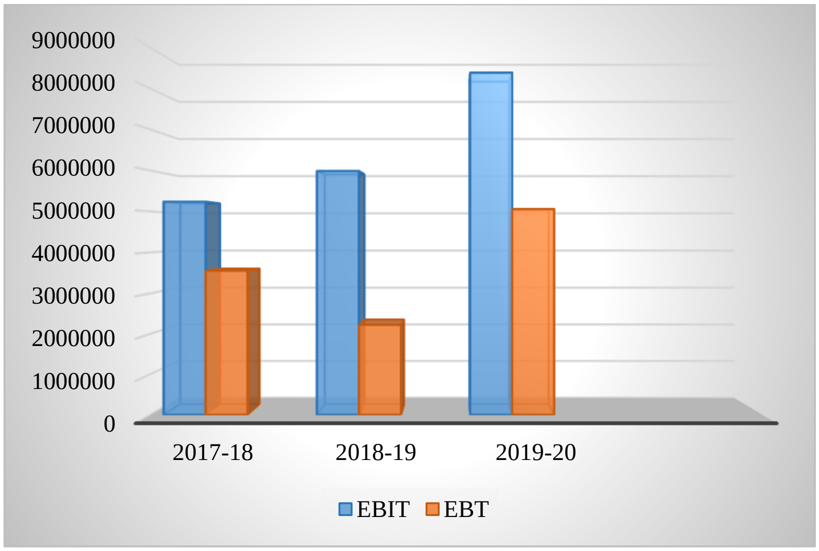
Interpretation

The study indicates that the rise in contribution is brought on by changes in sales turnover. On the other side, EBIT has grown during the past three years. This company's comparatively high combined leverage level is viewed as riskier than a corporation with less combined leverage since high leverage entails higher fixed costs for the company.

4.14 Degree of Financial Leverage

Year	**2017-18**	**2018-19**	**2019-20**
EBIT	5237183.78	5985157.5	8380945.55
EBT	3552651.8	2226056.38	5057509.65
Ratio	1.47	2.68	1.65

(**Table 4.14.1**: Showing the degree of financial leverage)



(Diagram 4.14.1: Showing the degree of financial leverage)

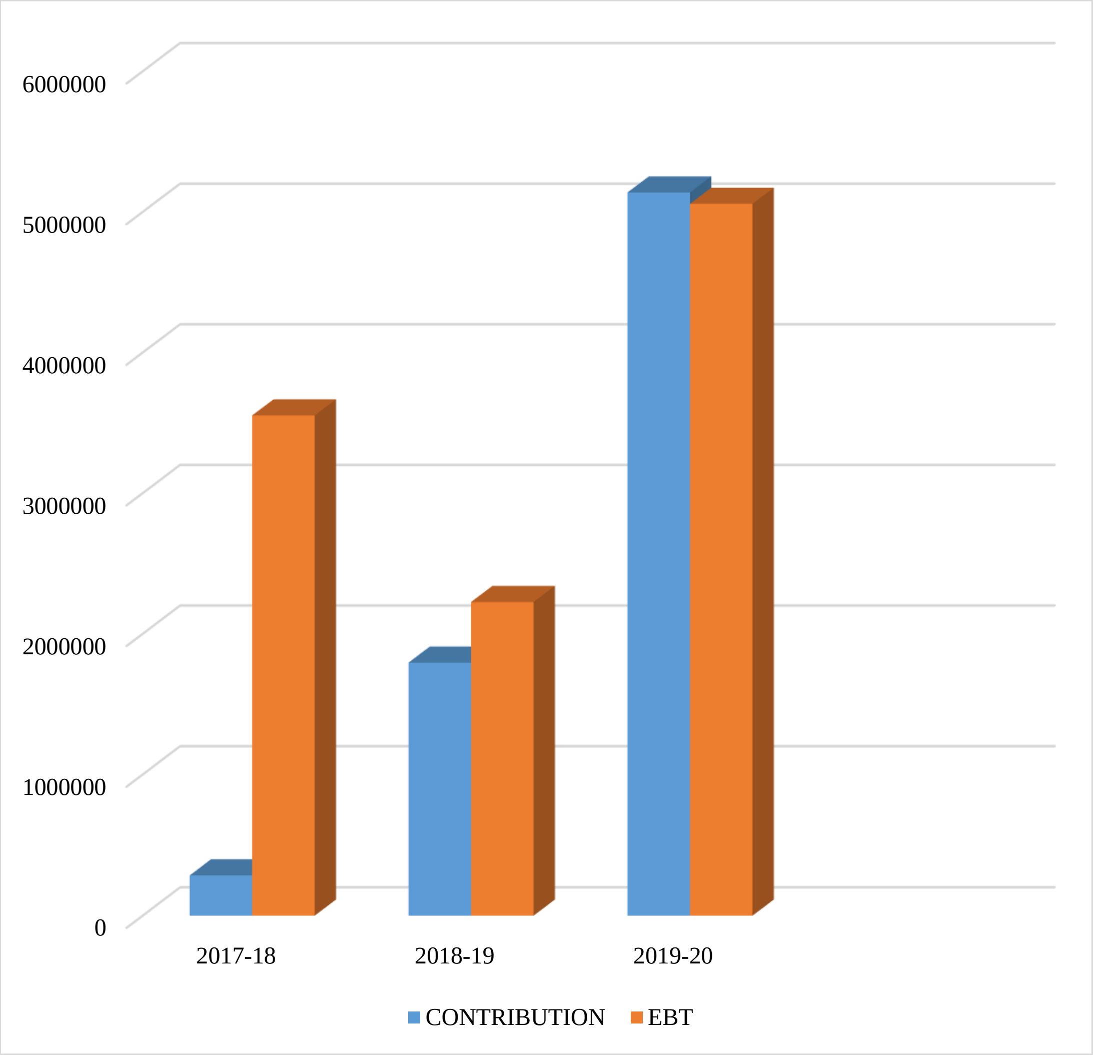
Interpretation

According to the data, EBIT is rising over time whereas EBT is dramatically falling when compared to EBIT in the year 2018 to 2019. This is due to the tremendous growth in financial leverage in 2018–19, which is 2.68.

4.15 Degree of Combined Leverage:

Year	**2017-18**	**2018-19**	**2019-20**
Contribution	284697.71	1794890.14	5137931.42
EBT	3552651.8	2226056.38	5057509.65
Ratio	0.08	0.80	1.01

(Table 4.15.1: Showing the degree of combined leverage)



(Diagram 4.15.1: Showing the degree of combined leverage)

Interpretation

Here, Raj Construction Company's degree of combined leverage analysis exhibits an upward tendency. This company's comparatively high combined leverage level is viewed as riskier than a corporation with less combined leverage since high leverage entails higher fixed costs for the company.

Analysis of Correlation

A statistical technique called correlation analysis is used to determine the strength of any potential relationship between two variables or data sets.

In the case of a positive correlation, this means that both variables rise together, whereas a negative correlation suggests that one variable falls as the other rises.

Formula for the Pearson correlation coefficient

The linear correlation coefficient, also known as "r," expresses how closely two variables are related. Because it forecasts the correlation between two quantities, it is also known as the cross-correlation coefficient. Now we will use statistics to determine the correlation coefficient.

The correlation coefficient can be determined using the formula if the two variables being discussed are x and y.

Formula for correlation coefficient

The Pearson correlation coefficient formula is:

$$\boxed{\mathbf{r = n(\sum by) - (\sum x)\ (\sum y) \ / \ \surd[n\sum x2 - (\sum x)2]\ [n\sum y2 - (\sum y)2]}}$$

- r = Pearson Coefficient
- n= number of the pairs of the stock
- ∑by = sum of products of the paired stocks
- ∑x = sum of the x scores
- ∑y= sum of the y scores
- $\sum x^2$ = sum of the squared x scores
- $\sum y^2$ = sum of the squared y scores

The correlation between two variables is quantified by a correlation coefficient. To determine the relationship between two sets of data, utilize Pearson's correlation formula. The Pearson correlation coefficient is used to determine if two data sets are linearly dependent. The Pearson product-moment correlation coefficient is another name for it. The Pearson correlation coefficient's product has a value between -1 and +1. The data are deemed to be unrelated if the correlation coefficient is 0. A number of +1 denotes a positive correlation between the data, whereas a value of -1 denotes a negative correlation.

The value of the Pearson correlation coefficient ranges from -1 to 1. The correlation coefficient can be interpreted as follows:

- A correlation coefficient of -1 indicates a very adverse association. It denotes a wholly adverse correlation between the variables.
- There is no association if the correlation coefficient is zero.
- When the correlation coefficient is 1, there is a significant positive correlation. It denotes a wholly favorable correlation between the variables.

We will investigate the relationship between Raj Construction Company’s Net Profit and its various forms of leverage (operational leverage, financial leverage, and combined leverage) in this analysis.

4.16 Correlation between Operating Leverage and Net profit

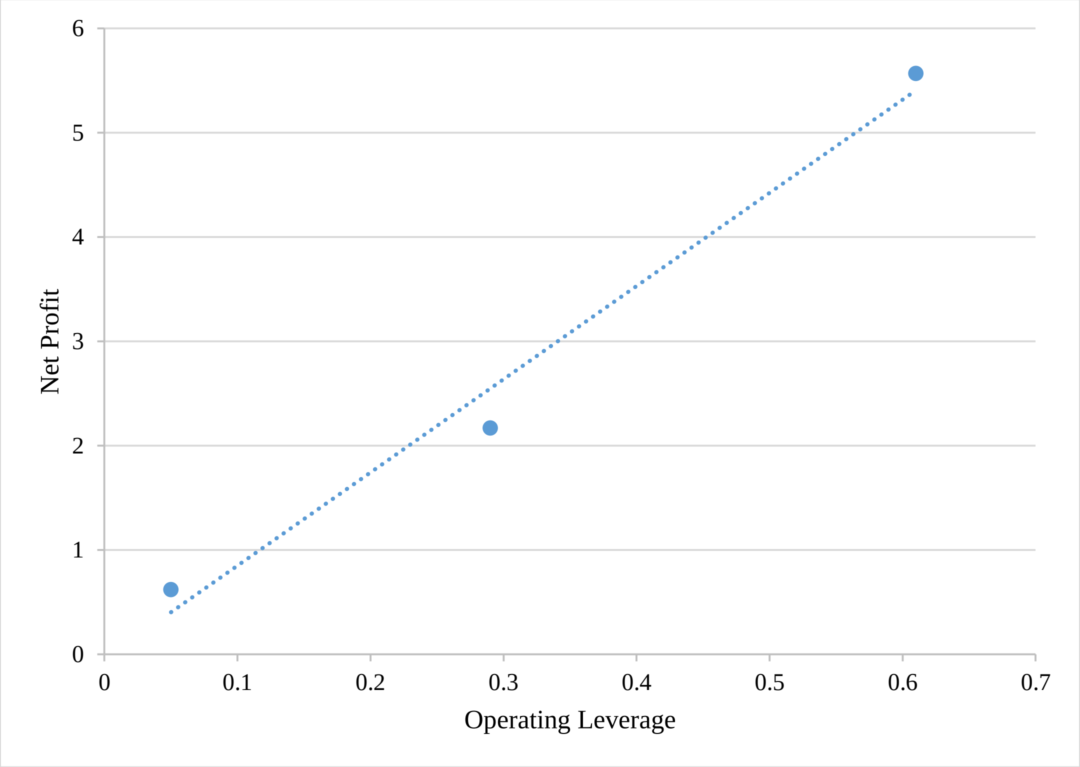
Here in this analysis, we are looking into the relationship between the Operating Leverage and Net profit of Raj Construction Company.

Company	Correlation	Result
Raj Construction Company	0.99	Positive

(Table 4.16.1: Showing the correlation between operating leverage and net profit)

Variables	Operating Leverage	Net Profit
Operating Leverage	1.00	
Net Profit	+0.992 (0.041)	1.00

Correlation is considered to be significant at the 0.05 level (1 – tailed)



(Diagram 4.16.1: Showing the correlation between operating leverage and net profit)

INTERPRETATION

- This illustrates the statistically supported association between operating leverage and net profit. Because the p value in this instance is 0.041, which is below the 0.05 significant criterion. The alternative hypothesis that there is no relationship between operating leverage and net profit is therefore rejected, as is the null hypothesis.

- Here, there is a positive association between Operating Leverage and Net Profit.

4.17 Correlation between Financial Leverage and Net profit

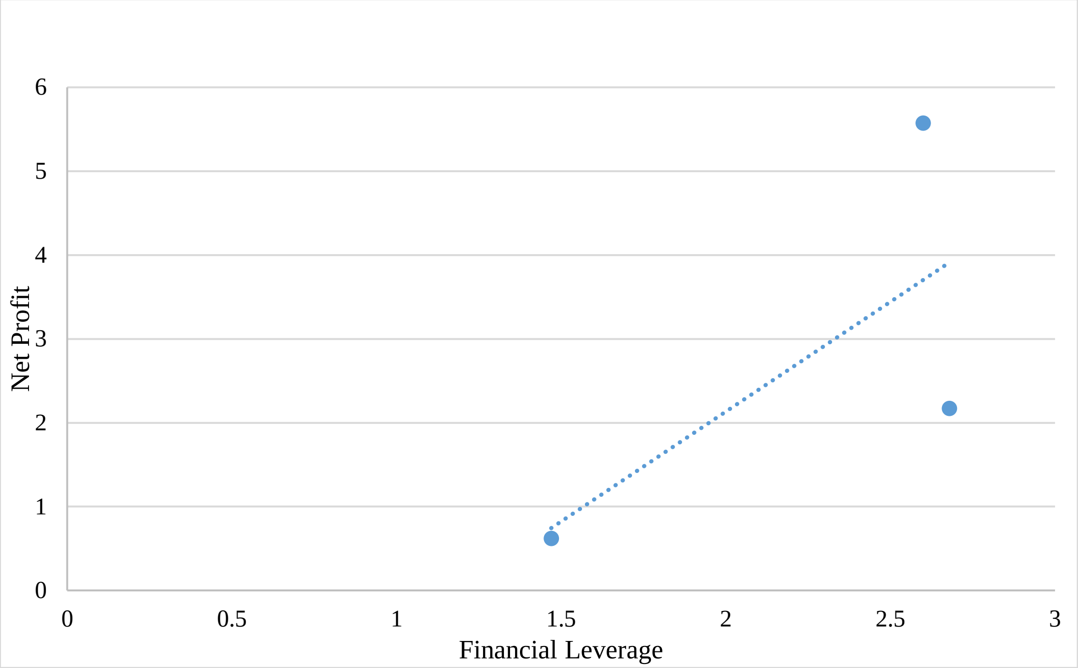
In this analysis, we are examining the connection between Raj Construction Company's financial leverage and net profit.

Company	Correlation	Result
Raj Construction Company	-0.074	Negative

(Table 4.17.1: Showing the correlation between financial leverage and net profit)

Variables	Financial Leverage	Net Profit
Financial Leverage	1.00	
Net Profit	-0.074 (0.476)	1.00

Correlation is considered to be significant at the 0.05 level (1 – tailed)



(Diagram 4.17.1: Showing the correlation between financial leverage and net profit)

INTERPRETATION

- Here is statistical evidence that there is no relationship between financial leverage and net profit. Because the p value in this instance is 0.47, which is higher than the 0.05 standard of significance, The null hypothesis is therefore accepted.

4.18 Correlation between Combined Leverage and Net profit

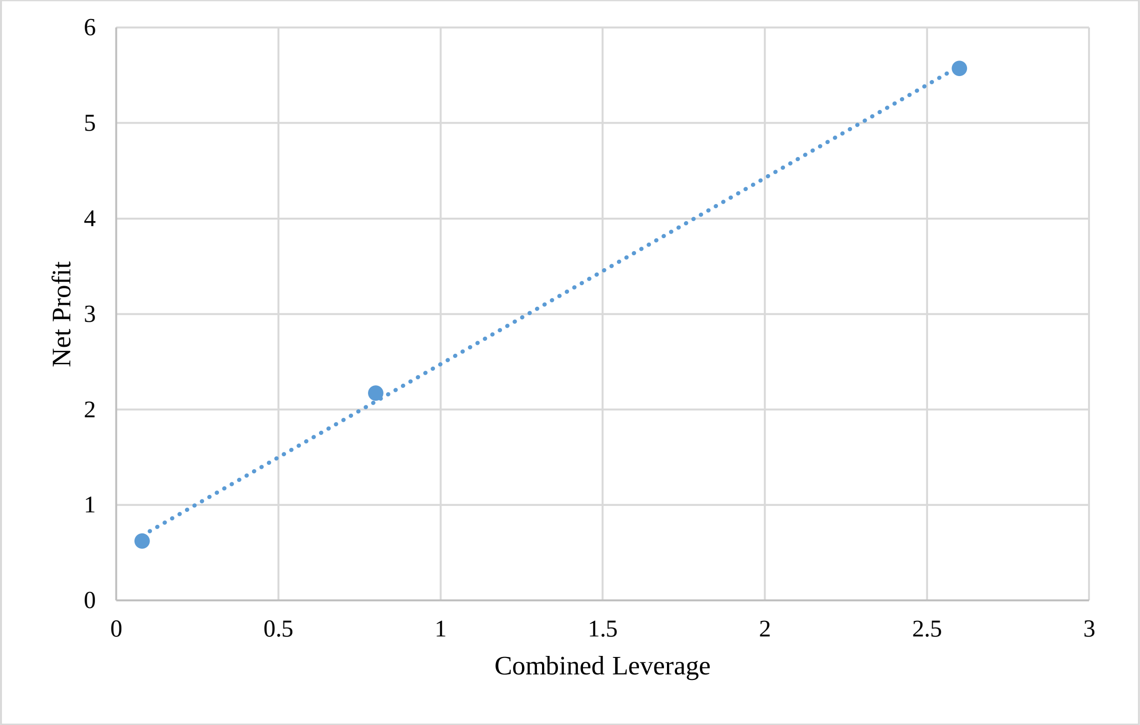
In this analysis, we're examining the connection between Raj Construction Company's combined leverage and net profit.

Company	Correlation	Result
Raj Construction Company	0.86	Positive

(Table 4.18.1: Showing the correlation between combined leverage and net profit)

Variables	Combined Leverage	Net Profit
Combined Leverage	1.00	
Net Profit	0.868 (0.165)	1.00

Correlation is considered to be significant at the 0.05 level (1 – tailed)



(Diagram 4.18.1: Showing the correlation between combined leverage and net profit)

INTERPRETATION

- This illustrates statistical evidence that there is no relationship between combined leverage and net profit. Due to the fact that the p value in this instance is 0.16, which is higher than the significant level of.05. The null hypothesis is therefore accepted.

5.1 FINDINGS

The appropriate chapters outline the major conclusions reached as a result of this investigation on numerous areas. This study is based on a performance review of Raj Construction Company.

- EBIT exhibits an upward trend. The ability of the company to produce sufficient earnings is the source of the rise in EBIT for this business , by means of rising sales. Positive relationships with consumers are maintained by the company's effective customer service.
- D/E ratios below 1 are typically regarded as being relatively safe. whereas concentrations of two or higher may be deemed hazardous. The low D/E ratio of this company should also be taken into consideration because it can indicate that the company is not taking use of debt financing and its tax benefits.
- Operating Leverage exhibits a trend toward growth. According to this analysis of operating leverage, the years 2019 and 2020 will have significant operating leverage, which will indicate that those years will have high fixed costs.
- Financial Leverage exhibits a cyclical pattern. A higher return on equity is produced by using more leverage while the economy is strong and sales are increasing. According to this analysis of financial leverage, the lowest financial leverage was 1.47 in the year 2017–2018. However, the financial leverage climbs to 2.68 in the year 2018–2019. Again, in 2019–2020, the financial leverage falls to 1.65. It suggests that the company's debt policy is unstable.
- Combined Leverage exhibits a trend toward growth. Because high leverage entails more fixed costs for the company, a corporation with relatively high combined leverage is viewed as riskier than a firm with lower combined leverage.
- The company's net profit exhibits an upward tendency. When analysing a company's earnings over time, it is simple to do so. For instance, examining a 3-year period can reveal corporate growth tendencies. Raj Construction Company's

net profit analysis reveals an increase in net profit.

- The net profit margin has a cyclical pattern. One of the most crucial measures of a company's financial health is its net profit margin. The company will be able to evaluate how its existing procedures are working and estimate earnings based on revenue by keeping track of the rising and falling portions of its net profit margin. The period between 2018 and 2019 exhibits the largest net profit margin.
- There is a positive correlation between Operating Leverage and Net Profit. Therefore, it states that Raj Construction Company's Net Profit improves as Operating Leverage increases. The Net Profit of Raj Construction Company dropped as Operating Leverage declined.
- There is a negative correlation between financial leverage and net profit. As a result, it is claimed that Raj Construction Company's net profit declined as financial leverage increased. Raj Construction Company's net profit increased as financial leverage decreased.
- Correlation between Combined Leverage and Net Profit shows a positive relationship. Therefore, it says that when the Combined Leverage increases the Net Profit of Raj Construction Company increases. When the Combined Leverage decreases the Net Profit of Raj Construction Company decreases.

5.2 SUGGESTIONS

Following is a summary of the study's recommendations based on the analysis:

- A high operating leverage value denotes a higher level of risk. High operational costs can be attributed to rising fixed costs. Operating risk is associated with a company's inability to pay its fixed costs.
- Management should create sound financial plans that consider the debt to equity as the per the standards in its capital structure in order to reduce financial risk and high levels of financial leverage.
- The instrument used to calculate the firm's overall risk is called combined leverage. In order to manage risk, a corporation should have low financial leverage and high operating leverage. If the business keeps its combined leverage at a moderate level, it will maximize a higher percentage gain in sales than in EBT.
- The concern hereby suggested that it should try to increase its overall sales so that the company can reduce the effect of increased operating and financial leverage.

5.3 CONCLUSION

The study was conducted to evaluate the leverage analysis of Raj Construction at North Paravur, Ernakulum, Kerala for a period of 3 years 2017-2020. Really this study helps to explore the company's strengths and weaknesses and to suggest strategy for the overall growth of the firm. The collected data were scientifically analysed and judged using scientific tools and techniques. If the company maintaining a moderate combined leverage which optimize a high percentage increase in sales than percentage increase in EBT.

The analysis and interpretation of Raj Construction's leverage analysis in North Paravur in Ernakulum, Kerala, still needs to be enhanced. It has been noticed that the Raj Construction company will continue to expand in the future and will eventually rank among the best construction firms serving a wide range of clients.