

# A STUDY ON FINANCIAL ANALYSIS OF CLIENT AND ROUTE- WISE PROFITABILITY IN FREIGHT FORWARDING OPERATIONS

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*Abstract -In this academic research, we were able to research the contribution of different factors towards profitability or loss in freight forwarders through the analysis of the clients as well as the freight sent over different routes. Moreover, we were also able to identify different components of cost structure in accordance with the type of goods transported in different industries, i.e., pharmaceuticals, automobiles, engineering, fast-moving consumer goods, etc. In this context, different tools of analysis were used in the research, i.e., ratio analysis, client contribution analysis, route cost analysis, trend analysis, business analysis, etc. Moreover, different cost factors were also identified, which contributed towards the profitability or loss in freight forwarding operations, leading to success or failure in these operations. According to the analysis, the pharmaceutical industry contributed towards the highest profitability, while the cost of the carrier was the largest component of the cost incurred in transporting the goods in these industries. Moreover, recommendations were also made regarding the profitability as well as the improvement in the logistics management of freight forwarders.*

## I. INTRODUCTION

Freight forwarding is one segment that forms the backbone of the world economy. In a competitive environment where costs are constantly increasing, freight forwarding businesses need to look at their financial situation to maintain high profit margins. In the freight forwarding business, costs can add up. From freight charges to handling fees, labour costs to administrative expenses, the cost structure can be complex. Understanding the cost structure is key to making the right business decisions. This study seeks to explore the profitability by clients and routes to understand the factors affecting the financial situation.

## II. BACKGROUND OF THE STUDY

With the increase in international trade during the past few decades, the growth of the logistics industry has also been remarkable. As the demand for the logistics industry increases, companies are required to manage complex international supply chains while maintaining price competitiveness.

Among the most interesting aspects of the logistics industry is the variety of costs that are generated, including the costs of the carriers, handling, ports, labour, and administration, which have a significant impact on the overall profitability of the company.

Data analysis tools enable companies to analyze performance, providing a better idea of the impact on the company's performance.

### III. JUSTIFICATION OF THE STUDY

The research is based on the fact that the logistics business runs on thin margins with little room for error, where small inefficiencies can multiply into significant financial loss, and conventional decision-making techniques are not able to uncover the actual dynamics of cost and profit. This research seeks to:

- identify the customers and routes that produce the best profits,
- help in optimizing the cost structure, and
- support decision-making with in-depth analysis.

### IV. OBJECTIVES:

- Evaluate the performance of freight forwarding operations;
- Determine the contribution of clients towards revenue and profit;
- Evaluate costs and profitability along different routes;
- Identify cost drivers;
- Provide strategic recommendations for improvement.

### V. LITERATURE REVIEW:

1. Previous research has indicated that the benefits to profit from logistics and supply chain management are mainly achieved through cost savings and route optimizations.
2. Kothari (2004), however, stresses the importance of financial analysis for the evaluation and decision-making of a business. Bowersox et al. indicate that the cost of logistics depends on the company's ability to manage costs and improve the efficiency of the supply chain.
3. In the freight forwarding literature, the cost of transportation is indicated as the largest cost factor for a company's profit potential; segmenting customers can also help identify the customers worth serving.
4. Although previous research has compared the cost of transportation to the profit potential for various combinations of clients and routes, a gap exists in the literature; this study aims to address this gap.

### VI. RESEARCH METHODOLOGY

- a) **Research Design:** The research design adopted for the study is descriptive and analytical.
- b) **Data Collection:** The research for the study was based on secondary data. The simulated data for logistics included the following:
  - Client Information
  - Shipment Quantity
  - Sale Price of Items
  - Component Costs (Carrier Cost, Handling Cost, Port Cost, Labour Cost, Administration Cost)
- c) **Tools Used for Analysis**
  - Microsoft Excel
  - Power BI

**d) Analytical Techniques**

- Ratio Analysis
- Client Contribution Analysis
- Route Cost Analysis
- Trend Analysis
- Business Analysis

e) **Sampling Method:** A sample data set was considered with data from multiple clients, industries, and international routes.

**VII. a) DISCUSSION**

Freight forwarding is a business that involves moving goods across international borders for different companies and individuals through the coordination of freight transportation to distant countries or even continents. The profitability of a freight forwarder depends on how well they manage costs and generate revenue.

Two main concepts that need to be kept in mind in this business are:

- Revenue = Price of the shipment × Number of dispatches sent
- Profit = Revenue – Total costs incurred in dispatching the goods
- Profit margin = Profit / Revenue

**b) ANALYSIS**

The analysis consists of five components:

**1. RATIO ANALYSIS**

Profit Margin: 5.9%

Cost-to-Revenue ratio: 9.4%

Per shipment profit = 9,105 (INR)

Conclusion:

Low profit margins indicate that high operational costs take up most of the revenues. The company's profitability relies mostly upon controlling costs and how many shipments they make per month.

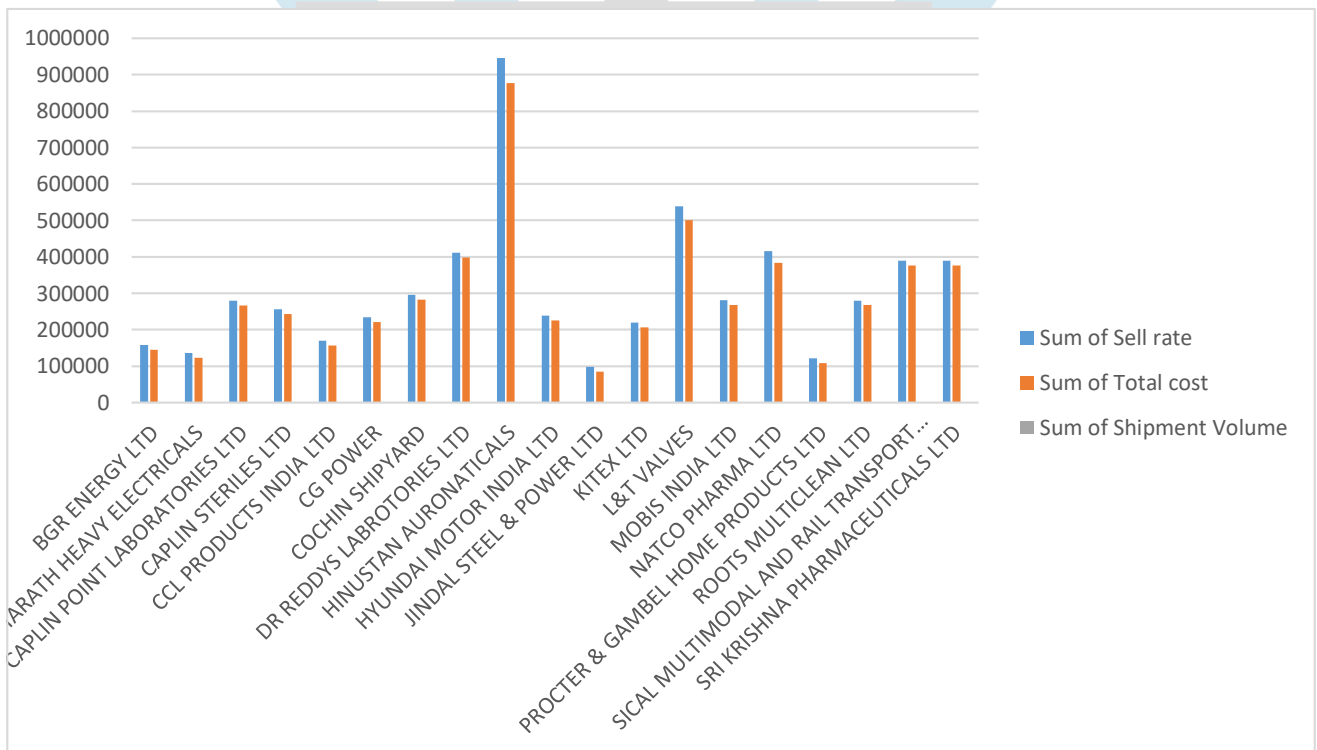
Compare ratio			
Client name	Revenue	Profit	Profit Margin
JINDAL STEEL & POWER LTD	98,234	13,000	13.23
PROCTER & GAMBEL HOME PRODUCTS LTD	1,21,591.4	13,000	10.69
BHARATH HEAVY ELECTRICALS	1,35,525.1	13,000	9.59

## 2. CLIENT CONTRIBUTION ANALYSIS

The total revenue is 5,857,115 rupees. The highest contributor to this revenue was Hindustan Aeronautics at around 16%. The majority of contributors to the overall revenue are pharmaceutical and industrial clients.

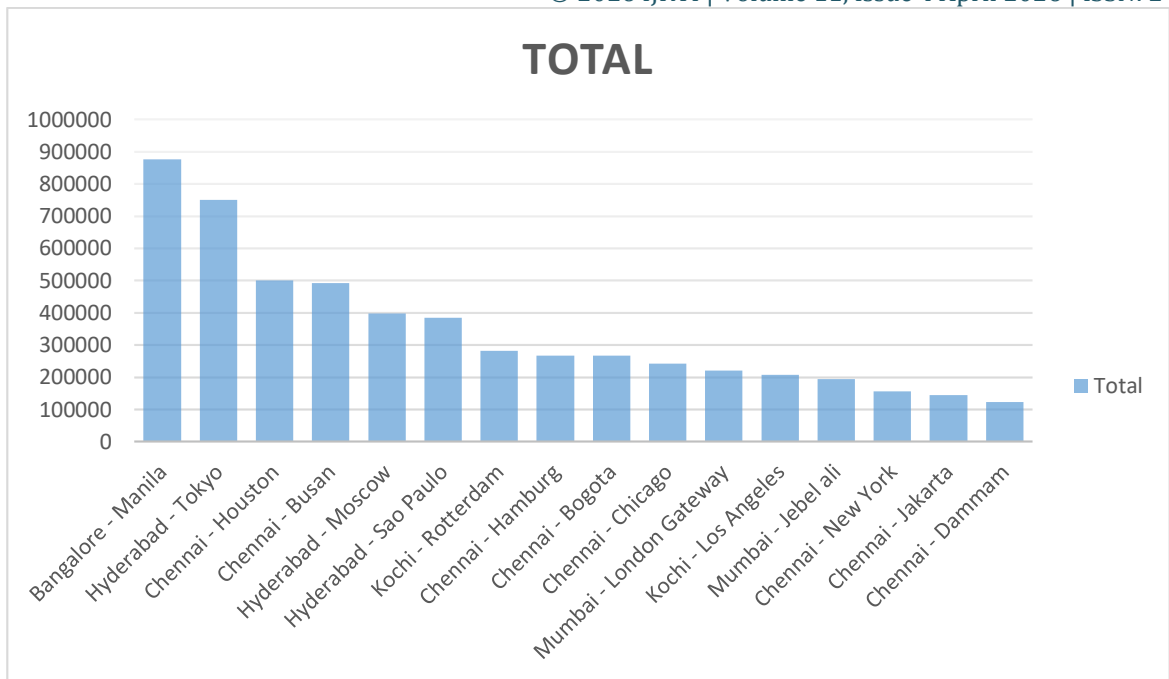
Interpretation:

The majority of revenue comes from a small number of clients, indicating a large dependency on a small number of customers. Pharmaceutical clients are the greatest profit contributors.



## 3. ROUTE COST ANALYSIS

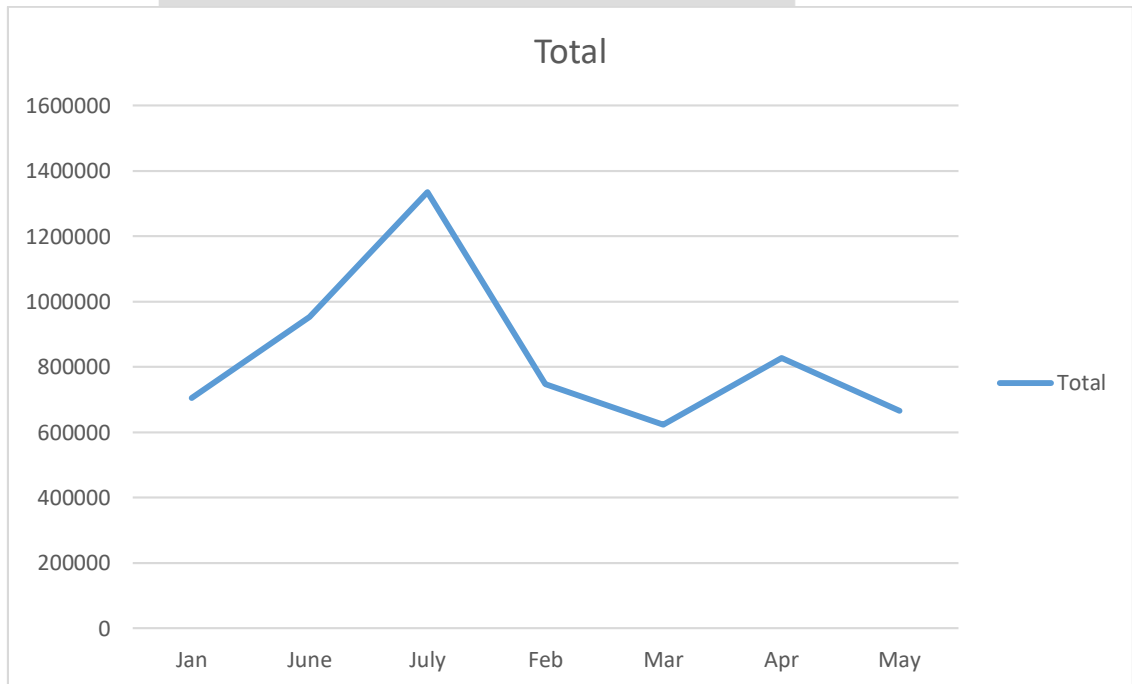
The costliest international route is Bangalore-Manila. The Hyderabad-Tokyo and Chennai-Houston routes are also costliest. In the context of international travel across the globe, it is seen that operating costs are higher. This clearly indicates the importance of route planning.



#### 4. TREND ANALYSIS

Revenue trends show the following:

- July has the maximum revenue
- March has the least revenue
- Revenue increases from March to July. This indicates a growth trend and higher demand for logistics services.



#### 5. BUSINESS ANALYST REPORT

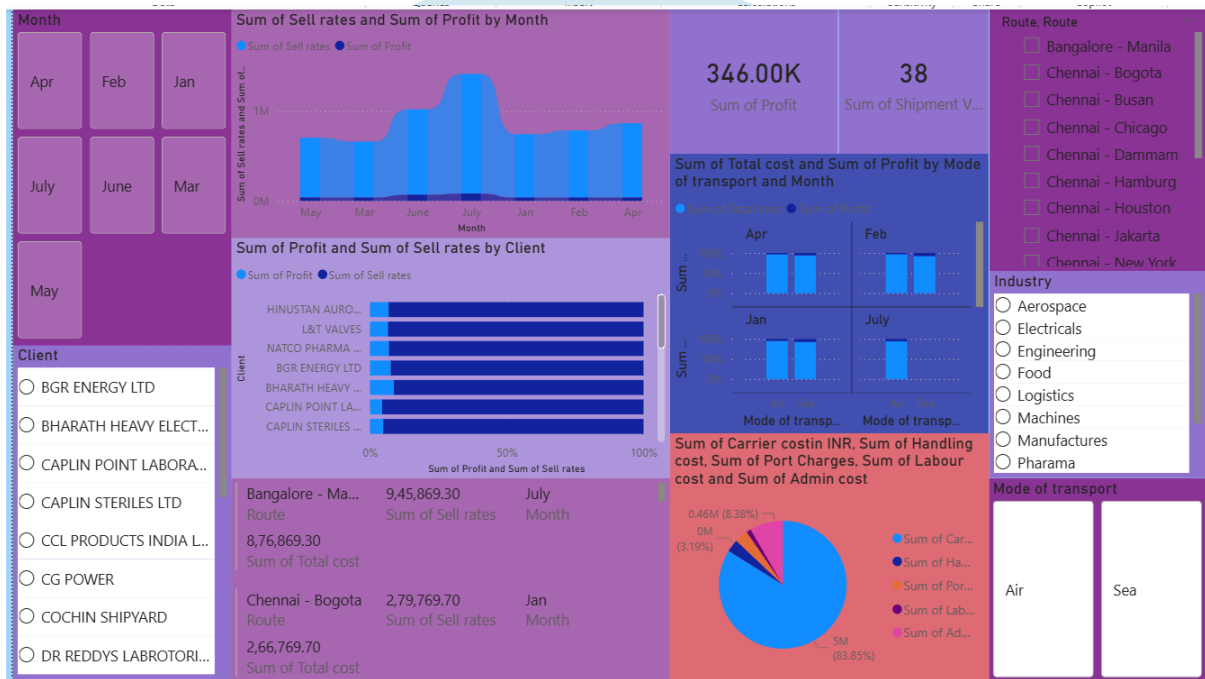
Information Provided

Total Revenue - ₹58,57,115

Total Profit - ₹3,46,000

Interpretation:

It is seen that the business is operating in a high-cost and low-margin environment. The business requires cost efficiency, customer selection, and utilizing the routes optimally.



## Overview

- Profitability is determined based on operating costs.
- A small number of clients/routes account for a majority of the profits.
- The business has been growing steadily over the years.

## Future Scope

- Gain deeper insights into the business using live logistics data.
- Advanced analytics and AI may help optimize logistics.
- Study the global logistics infrastructures.
- Study how the business may be affected if there's a change in the economy or politics.

## VIII. FINDINGS

1. Pharmaceuticals have a higher profit margin compared to other goods.
2. The carrier's fee is the highest cost in any shipment.
3. Though the profit is much higher with airfreight, a lot more volume is transported with sea freight in a single shipment.
4. Some international routes have a higher profit margin than others do.
5. Less profitable than most other goods are heavy machinery.
6. A small number of key clients are responsible for a majority of the profits.
7. The business has been growing steadily over the years.

## IX. CONCLUSION

In conclusion, the study established that the profitability of freight forwarders depends on a number of factors: the source of the clients, the routes taken, and the cost incurred by the carriers for each load. The study established that the most profitable source for the freight forwarders is the shipment of pharmaceutical products, even though the cost incurred by the carriers is the largest.

Freight forwarders can improve their financial performance by controlling costs, streamlining routes, and utilizing tools such as Excel and Power BI to improve their efficiency.

## X. SUGGESTIONS

Client base Focus:

- High-margin clients: Pharmaceutical clients
- Lower carrier costs through better pricing negotiations
- Utilize sea freight where possible to save costs
- Develop the international business on profitable routes
- Diversify the client base away from a small number of clients
- Implement cost control measures
- Leverage data analytics tools to improve decision-making capabilities

## XI. REFERENCES

1. Kothari, C.R. (2004). *Research Methods and Techniques*. Published by New Age International
2. Bowersox, D.J., Closs, D.J., & Cooper, M.B. (2013). *Logistics Management in Supply Chain*. Published by McGraw-Hill Education
3. Horngren, C.T., Datar, S.M., & Rajan, M.V. (2015). *Cost Accounting: A Management Perspective*. Published by Pearson Education
4. World Bank. (2023). *Logistics Performance Index – Vol. 10, Issue 2*
5. Investopedia. (2024). *Ratio Analysis - Profitability Ratio* Retrieved from <https://www.investopedia.com/>
6. "Statista" Globally. (2024) Report (Vol 5, Issue 1)
7. Kothari, C.R. 2004, *Research Methodology: Methods and Techniques*, New Age International Publishers