

# **“AN ANALYSIS OF FINANCIAL PERFORMANCE AND CAPITAL STRUCTURE OF AMWIN MACHINING PRIVATE LIMITED”**

Dissertation Project submitted in partial fulfilment of the Requirements for  
the Award of the Degree

**MASTER OF BUSINESS ADMINISTRATION**

**of**

**BANGALORE UNIVERSITY**



*By*

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This is to certify that the Dissertation Project titled **“An Analysis of Financial Performance and Capital Structure of Amwin Machining Private Limited”** is an original work of **Mr Jithendra Prasad**, bearing **Register Number P03KU23M015095** and is being submitted in partial fulfilment for the award of the master’s degree in business administration of Bangalore University. The report has not been submitted earlier either to this university/Institution for the fulfilment of the requirement of a course of study or any other Degree.

Signature of Guide

Signature of Principal/Director



## AMWIN MACHINING PRIVATE LIMITED

(CINU29100KA2018PTC114839)

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### TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Jithendra prasad** bearing Register No **P03KU23M015095**, pursuing fourth semester MBA in Finance at Soundarya Institute of Management and Science, Bengaluru- 560073, has successfully completed his Dissertation project titled on **"An Analysis of Financial Performance and Capital Structure of Amwin Machining Private Limited"** at Amwin machining Pvt Ltd.

The duration was from 15-09-2025 to 30-10-2025.

During this period of training, we found his punctual, disciplined and proactive in assigned tasks and duties.

We wish him all the success in his future endeavours.

Regards,

For AMWIN MACHINING PVT LTD.,

  
Abhishet  
Executive - HR  


## **DECLARATION BY THE STUDENT**

I hereby declare that **“An Analysis of Financial Performance and Capital Structure of Amwin Machining Private Limited.”** is the result of the project work carried out by me under the guidance of **Mr. Vaibhav S Arwade, Assistant Professor, Department of MBA, Soundarya Institute of Management and Science** in partial fulfilment for the award of master’s degree in business administration by Bangalore University.

I also declare that this project is the outcome of my own efforts and that it has not been submitted to any other university or Institute for the award of any other degree or Diploma or Certificate.

**Place: Bangalore**

**Jithendra Prasad**

**Date:**

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# EXECUTIVE SUMMARY

This project titled “**An Analysis of Financial Performance and Capital Structure of Amwin Machining Private Limited**” examines the financial health, profitability, liquidity, solvency, and overall capital structure decisions of Amwin Machining Pvt. Ltd., a precision manufacturing SME located in Peenya Industrial Area, Bengaluru. The study spans **five financial years (2018–19 to 2022–23)** and uses key analytical tools such as ratio analysis, trend analysis, DuPont model, and common-size statements to evaluate the company’s performance.

Amwin Machining Pvt. Ltd., promoted by Ace Multi Axes Systems Ltd., manufactures high-precision components for diverse sectors including aerospace, healthcare, automotive, packaging, and machine tools. With strong quality certifications (ISO 9001 and AS9100) and advanced CNC/VMC technology, the company has built a reputation for reliability and accuracy. Its wide customer base, diversified product portfolio, and emphasis on operational excellence have contributed to its stable financial position.

The financial analysis indicates **steady growth in sales, profits, total assets, and shareholders’ funds** during the study period. Profitability ratios such as GPM, NPM, ROA, and ROE show improvement, signifying efficient cost control and better utilization of resources. Liquidity analysis reveals that the company is capable of meeting short-term obligations, though improvements in quick liquidity would strengthen working-capital stability.

The capital structure assessment shows a **moderate and balanced Debt–Equity Ratio**, enabling the company to benefit from tax shields while maintaining low financial risk. Solvency ratios, including Interest Coverage and Proprietary Ratio, confirm that Amwin has not over-leveraged its financial base. DuPont analysis highlights that profitability, asset turnover, and controlled leverage together have contributed positively to shareholder returns.

Trend analysis shows consistent upward movement in revenue, gross profit, net profit, and capital employed. Efficiency indicators, including inventory turnover and total asset turnover, reflect strong operational discipline and resource utilization.

Overall, the study concludes that **Amwin Machining Pvt. Ltd. demonstrates strong financial performance, stable leverage, and effective management of operations.**

To enhance future growth, the company can focus on strengthening working-capital management, improving receivables turnover, and adopting digital financial tools. The findings offer valuable insights that support managerial decision-making, operational planning, and long-term strategic development.

The study also reveals that Amwin Machining Pvt. Ltd. has benefited significantly from its strong industrial relationships and consistent investments in technological upgrades. By continuously modernising its machining capabilities and maintaining strict quality standards, the company has positioned itself competitively in both domestic and export markets. The management's strategic focus on customer satisfaction, timely delivery, and precision engineering has helped the company sustain long-term contracts and reduce business uncertainty. These operational strengths have contributed to steady revenue growth and enhanced financial resilience over the years.

In addition, the analysis highlights that the company's financial policies are aligned with sustainable business practices, enabling it to balance profitability with controlled financial risk. While the firm has managed to maintain stable leverage, opportunities exist for further optimisation through improved credit management and adoption of advanced financial planning tools. Strengthening internal financial controls and digitalising cost-monitoring processes can further boost efficiency and support future expansion. Overall, the study underscores that Amwin Machining Pvt. Ltd. is well-positioned for long-term growth, provided it continues to enhance its financial discipline and operational agility.

## CHAPTER - 1

### INTRODUCTION AND INDUSTRY PROFILE

#### 1.1 THEORETICAL BACKGROUND OF THE STUDY

##### 1.1.1 Introduction to Financial Performance

Financial performance refers to the overall financial health, stability, and viability of a business organization. It acts as a mirror reflecting how effectively a company utilizes its available resources to generate profits, maintain liquidity, and ensure long-term growth. In simpler terms, financial performance shows whether a business is moving in the right direction financially or facing challenges that require corrective action. According to Pandey (2021), financial performance is the measure of a company's results from its operations and policies in monetary terms. It indicates how well the firm is able to generate income, manage its expenses, control its costs, and maintain profitability over time.

In the current business environment, especially during the post-pandemic period (2020–2025), the analysis of financial performance has gained even greater importance. The COVID-19 pandemic created unprecedented challenges for businesses worldwide, disrupting supply chains, reducing customer demand, and creating cash flow shortages. Many small and medium enterprises (SMEs) in India, particularly in the manufacturing and service sectors, faced significant pressure to stay afloat. Companies like Amwin Machining Pvt. Ltd., operating in the Indian manufacturing industry, had to strengthen their financial management strategies to maintain stability, manage operational costs, and ensure survival in a highly uncertain market environment.

Monitoring financial performance allows a company to assess its profitability, liquidity, solvency, and efficiency on a continuous basis. It helps management make informed decisions related to investments, cost control, and financing options. Moreover, financial analysis assists in identifying trends in revenue generation, debt management, and overall financial strength. A company with consistent financial performance can inspire investor confidence, attract new business

opportunities, and secure loans or financial support from banks and financial institutions.

Key indicators such as profitability ratios (like net profit margin and return on assets), liquidity ratios (such as current ratio and quick ratio), leverage ratios (like debt-to-equity ratio), and efficiency ratios (such as inventory turnover and asset utilization) provide valuable insights into how well a business is performing. Together, these metrics form a comprehensive view of the firm's ability to generate sustainable growth while maintaining financial discipline.

### **1.1.2 Meaning and Importance of Financial Performance**

Financial performance represents the overall financial well-being, stability, and growth potential of a business organization. It serves as a crucial reflection of how effectively a company utilizes its resources—such as capital, assets, and human talent—to generate profits, sustain liquidity, and achieve long-term success. In essence, financial performance acts as a mirror that reveals the company's financial strength, operational efficiency, and its ability to withstand internal and external challenges. According to Pandey (2021), financial performance is a quantitative assessment of how well a company's operations and strategies are translating into measurable monetary results. It shows whether the business is capable of generating sufficient revenue, managing expenditures prudently, and maintaining profitability while fulfilling its financial obligations.

In the rapidly changing global business environment, especially in the post-pandemic era (2020–2025), financial performance analysis has become more significant than ever before. The COVID-19 pandemic reshaped global economies, affecting industries across all sectors. Businesses faced declining revenues, disrupted supply chains, increased debt burdens, and uncertainty in demand patterns. The crisis especially impacted small and medium-sized enterprises (SMEs) in India, which form the backbone of the country's manufacturing and service sectors. Many of these firms encountered severe liquidity crunches, forcing them to rethink their financial strategies and strengthen their internal control systems.

Companies like Amwin Machining Pvt. Ltd., operating in the Indian manufacturing industry, experienced the need to closely evaluate their financial position to maintain competitiveness and sustainability. For such firms, financial performance analysis became an essential tool for understanding where the business stands, how efficiently resources are being used, and what corrective measures are required to improve profitability and operational stability. Regular monitoring of financial performance enables management to identify areas of improvement, reduce wastage, manage working capital effectively, and allocate resources more efficiently.

Financial performance analysis is multidimensional in nature. It covers various aspects such as profitability, liquidity, solvency, and efficiency. **Profitability analysis** helps determine whether a company is generating sufficient returns on investments and operations. **Liquidity analysis** examines the firm's ability to meet short-term obligations without disrupting operations. **Solvency analysis** focuses on long-term financial stability and the company's capacity to meet debt commitments. **Efficiency analysis**, on the other hand, measures how effectively assets and resources are being utilized to generate sales and profits.

The use of key financial ratios provides deeper insights into a company's financial condition. **Profitability ratios** like the Net Profit Margin and Return on Assets (ROA) indicate how well the company converts revenue into profit. **Liquidity ratios**, such as the Current Ratio and Quick Ratio, show the firm's ability to meet short-term obligations. **Leverage ratios**, such as the Debt-to-Equity Ratio, reflect the company's reliance on borrowed funds, while **efficiency ratios**, like Inventory Turnover and Asset Utilization, demonstrate how effectively resources are employed. Together, these ratios provide a holistic understanding of financial performance and support strategic decision-making.

A strong financial performance has far-reaching implications for an organization. It builds investor and stakeholder confidence, attracts potential investors, and enhances the company's reputation in the marketplace. It also allows the organization to secure financial support from banks and other institutions, expand operations, and invest in innovation and technology. On the other hand, poor financial performance can signal inefficiencies, mismanagement, or overexposure

to financial risks, leading to difficulties in sustaining operations or attracting investment.

Moreover, financial performance is not only an internal management concern but also a key external measure used by shareholders, creditors, and regulatory bodies to evaluate the company's success and credibility. Transparent and accurate financial reporting builds trust among stakeholders and ensures compliance with financial regulations. For manufacturing companies like Amwin Machining Pvt. Ltd., this transparency is essential for long-term growth, particularly in a competitive industry where financial discipline and strategic decision-making play a decisive role in survival and expansion.

### 1.1.3 Evolution of Financial Performance Analysis

The concept of financial performance analysis has undergone a significant transformation over the years, evolving from simple accounting-based evaluations to more comprehensive, analytical, and technology-driven approaches. In the early stages of industrial and commercial development, businesses primarily focused on basic financial indicators such as profitability, liquidity, and solvency to assess their performance. These traditional methods, although useful, provided only a partial view of a firm's true financial health. Financial performance was often evaluated solely through income statements and balance sheets, emphasizing short-term results rather than long-term value creation.

As economies and financial systems became more complex, especially during the mid-20th century, the need for a deeper and more strategic understanding of financial performance emerged. Organizations began to realize that profitability alone was not a sufficient indicator of success. A company might show strong accounting profits while still failing to create real economic value for its shareholders. This realization led to the development of more advanced analytical tools such as **DuPont Analysis**, which breaks down Return on Equity (ROE) into multiple components—profitability, efficiency, and leverage—to give a clearer picture of performance.

With the globalization of markets and the expansion of capital flows, financial analysts and scholars started incorporating new frameworks that considered both

financial and market-based factors. This shift was further strengthened by modern financial theories that highlighted the importance of the **cost of capital**, **risk-adjusted returns**, and **shareholder value creation**. According to Brigham and Ehrhardt (2020), the modern approach to financial performance analysis integrates accounting data with market-based measures, enabling businesses to assess not just financial stability but also value generation and competitive advantage.

The emergence of **Value-Based Management (VBM)** systems brought a new dimension to performance evaluation. Metrics such as **Economic Value Added (EVA)** and **Market Value Added (MVA)** became popular tools to measure a company's ability to generate wealth for its shareholders. EVA assesses the company's true economic profit after accounting for the cost of capital, while MVA reflects the difference between the market value of the firm and the capital invested by shareholders. These methods shifted the focus from traditional profit measurement to long-term value creation and sustainable growth.

Technological advancements have also played a major role in the evolution of financial performance analysis. The introduction of **digital accounting software**, **Enterprise Resource Planning (ERP)** systems, and **data analytics platforms** has revolutionized how organizations, including small and medium enterprises (SMEs), manage and interpret financial data. Earlier, comprehensive financial analysis was a privilege limited to large corporations with extensive resources. Today, even smaller firms can perform ratio analysis, cash flow forecasting, and risk assessment using affordable, cloud-based financial management tools.

Moreover, the integration of **real-time data analytics** and **automation** has enhanced the accuracy and timeliness of financial reporting. Businesses can now detect financial trends, forecast outcomes, and make data-driven decisions faster than ever before. This democratization of financial intelligence has empowered SMEs to compete effectively with larger players, improve decision-making, and strengthen their financial resilience.

In addition, the modern era has seen the blending of financial analysis with non-financial performance indicators such as sustainability metrics, corporate governance standards, and social responsibility outcomes. This holistic approach



acknowledges that a company's financial success is closely tied to ethical management, environmental impact, and stakeholder satisfaction.

### **1.1.4 Theories of Capital Structure**

Capital structure refers to the proportion or mix of debt and equity that a company uses to finance its overall operations and growth. It represents how a firm strategically balances borrowed funds and owners' capital to meet its financial requirements while maintaining stability and profitability. The determination of an appropriate capital structure is one of the most crucial and debated aspects in financial management because it directly influences the company's financial performance, cost of capital, risk level, and overall market value.

An optimal capital structure is one that minimizes the cost of capital while maximizing the value of the firm. The right mix of debt and equity allows a business to achieve financial flexibility, reduce funding costs, and maintain a sound balance between risk and return. Too much reliance on debt can increase the company's financial burden and insolvency risk, while excessive dependence on equity may dilute ownership and limit returns to shareholders. Therefore, achieving an ideal balance between these two sources of finance is essential for maintaining long-term sustainability.

Over the years, various economists and financial theorists have developed frameworks to explain how capital structure affects the value of a firm and its overall cost of capital. These theories provide insights into how businesses can choose an appropriate financing pattern depending on their size, industry, and risk tolerance. They highlight whether using more debt increases firm value or if the financing mix is irrelevant to performance.

As financial markets evolved and corporate financing options expanded, the study of capital structure became increasingly sophisticated. Earlier, firms relied mainly on internal financing and bank borrowings. However, globalization, deregulation, and the growth of capital markets introduced multiple sources of finance—such as bonds, venture capital, and equity markets—giving businesses greater flexibility in designing their capital structures.

In modern times, capital structure decisions are influenced by several factors, including tax policies, market conditions, business risk, cost of debt, and management's attitude toward control and risk. With increasing competition and financial innovation, companies must carefully plan their financing strategies to ensure that they do not become over-leveraged or under-capitalized.

The major theories of capital structure aim to explain the relationship between a firm's financing decisions and its market value. These theories serve as a foundation for understanding how debt and equity choices impact profitability, investor perception, and long-term sustainability.

In conclusion, the theories of capital structure are essential for guiding financial managers in making informed financing decisions. They help in understanding the dynamics between risk, return, and value creation. For companies like Amwin Machining Pvt. Ltd., determining the right capital mix is vital for ensuring cost efficiency, financial stability, and sustained growth in a competitive industrial environment.

### **Modigliani–Miller (MM) Theory (1958, 1963)**

The Modigliani–Miller (MM) Theory, proposed in 1958 and expanded in 1963, is a cornerstone of modern corporate finance. According to MM, under the assumption of perfect capital markets—where there are no taxes, transaction costs, or bankruptcy risks—the value of a firm remains unchanged regardless of its capital structure. In other words, the proportion of debt and equity used to finance a company does not affect its overall market value. This was a revolutionary idea at the time because it challenged the traditional belief that increasing debt or equity could directly influence firm value.

However, when Modigliani and Miller later incorporated corporate taxes into their model in 1963, the perspective shifted. They demonstrated that debt financing can actually increase a firm's value due to the tax-deductibility of interest payments. This benefit, often referred to as the “**tax shield**”, reduces the overall cost of capital, making moderate levels of debt advantageous. The theory suggests that while debt can enhance firm value, excessive borrowing introduces higher financial risk, which can offset these benefits.

For small and medium enterprises (SMEs) like Amwin Machining Pvt. Ltd., the MM theory provides valuable guidance. It highlights that using a reasonable amount of debt can lower financing costs and enhance value without exposing the company to undue financial stress. By carefully balancing equity and debt, SMEs can optimize their cost of capital, support growth initiatives, and maintain financial stability, all while leveraging the benefits of the tax shield.

In essence, the MM theorem emphasizes the importance of **prudent financial management** and strategic leverage. It encourages firms to consider both the advantages of debt and the associated risks, enabling them to make informed decisions that support sustainable growth and long-term profitability.

### **Trade-Off Theory**

The Trade-Off Theory emphasizes that firms strive to maintain an **optimal capital structure** by balancing the benefits and costs of debt financing. On one hand, debt offers a **tax advantage**, as interest payments are tax-deductible, which reduces the overall cost of capital. On the other hand, borrowing excessively increases the likelihood of **financial distress or bankruptcy**, which can erode firm value. The optimal point, or the “trade-off point,” is achieved when the **marginal benefit of debt equals the marginal cost** of potential financial distress. For manufacturing companies, which typically require substantial investment in machinery, equipment, and infrastructure, moderate debt levels allow them to enjoy tax benefits while keeping financial risk under control.

### **Pecking Order Theory (Myers & Majluf, 1984)**

The Pecking Order Theory suggests that firms follow a **hierarchical approach to financing**. First, they use **internal funds** such as retained earnings, then **debt financing**, and finally **equity issuance** as a last resort. The rationale behind this preference is **information asymmetry**—managers have more knowledge about the firm’s financial health and growth prospects than outside investors. Issuing new equity might be interpreted by the market as a signal of weakness or overvaluation, while using internal funds or debt demonstrates confidence in the firm’s performance. This theory is particularly relevant for Indian SMEs, which often rely

on **internal accruals and bank loans** to maintain control, avoid ownership dilution, and manage financing costs efficiently.

### **Agency Theory (Jensen & Meckling, 1976)**

Agency Theory examines the potential **conflicts of interest** between shareholders and managers, or between debt holders and equity holders. Debt can serve as a **disciplinary mechanism** by imposing mandatory interest and principal repayments, limiting managerial discretion and reducing the risk of wasteful spending. However, excessive debt may create tensions with creditors, particularly if management engages in high-risk projects that jeopardize the firm's ability to repay obligations. Maintaining a **well-structured debt–equity balance** helps align managerial behavior with shareholder interests while preserving the confidence of creditors, thereby supporting sustainable growth and financial stability.

Together, these theories provide a framework for understanding how companies can strategically structure their capital to balance risk, control, and value creation. For SMEs like Amwin Machining Pvt. Ltd., applying these principles ensures that financial decisions support long-term profitability, operational efficiency, and investor confidence.

### **Signaling Theory**

Signaling Theory emphasizes that a firm's financing decisions convey important **information to the market** about its financial health and future prospects. Taking on debt is often interpreted as a sign of **confidence in future cash flows**, suggesting that the firm expects to generate sufficient earnings to meet obligations. On the other hand, issuing new equity can signal that management believes the firm's shares are overvalued or that internal resources are insufficient, potentially creating doubts among investors. Even though SMEs like Amwin Machining Pvt. Ltd. are not publicly listed, their financing choices still communicate **credibility and stability** to lenders, suppliers, and other stakeholders. A disciplined approach to debt and equity demonstrates sound financial management, enhancing trust and supporting sustainable growth.

### Market Timing Theory

Market Timing Theory proposes that firms make financing decisions based on prevailing **market conditions** to optimize their cost of capital. For instance, when equity valuations are high, firms may issue shares to raise funds efficiently, whereas during periods of low interest rates, debt financing becomes more attractive. Between 2020 and 2025, Indian SMEs, including manufacturing firms, faced fluctuating interest rates and varying credit availability due to economic uncertainty caused by the pandemic. The Reserve Bank of India's accommodative monetary policy enabled many companies to **refinance existing debt at lower rates**, thereby reducing financial pressure and improving liquidity. Market timing allowed SMEs to strategically structure their capital, taking advantage of favorable conditions while maintaining financial stability.

Together, these theories highlight the strategic role of **financial signaling and market awareness** in capital structure decisions. For SMEs like Amwin Machining Pvt. Ltd., such practices ensure credibility with stakeholders, optimize funding costs, and enhance long-term operational resilience.

#### 1.1.5 Link between Capital Structure and Financial Performance

Capital structure and financial performance are closely intertwined, as the way a company finances its operations has a direct impact on its profitability, stability, and growth potential. The mix of debt and equity determines the firm's **cost of capital**, influences earnings stability, and affects **Return on Equity (ROE)**. Moderate leverage, when managed prudently, can enhance ROE by amplifying returns on shareholders' funds through the **tax shield effect**. Essentially, interest on debt is tax-deductible, which reduces the overall taxable income and cost of financing, thereby boosting profitability. Conversely, excessive leverage can be detrimental; if the costs of debt servicing exceed the firm's operating profits, it can erode earnings, reduce solvency, and increase financial risk.

Empirical evidence from both Indian and international studies suggests that companies with a **balanced debt–equity ratio** generally achieve stronger financial performance. For instance, Kumar (2022) observed that Indian manufacturing SMEs maintaining debt levels between 30% and 50% of total capital exhibited

higher ROE and Return on Assets (ROA) compared to firms with either minimal or excessively high leverage. This highlights that neither extreme equity financing nor over-reliance on debt is ideal. For SMEs like Amwin Machining Pvt. Ltd., maintaining a **balanced capital structure** is critical for ensuring both financial stability and consistent profitability. A carefully calibrated mix of debt and equity not only optimizes cost of capital but also enhances investor confidence and supports sustainable growth initiatives.

### 1.1.6 Financial Performance Indicators

Financial performance indicators are essential tools that provide insights into a company's operational efficiency, profitability, liquidity, and long-term solvency. By analyzing these indicators, management can compare the firm's current performance with historical data, industry benchmarks, and competitors, facilitating better decision-making and strategic planning.

#### Profitability Ratios

Profitability ratios measure a firm's ability to generate earnings relative to sales, assets, or shareholders' equity. Key ratios include:

- **Gross Profit Margin (GPM):** Indicates the efficiency of production and cost management in generating gross profit.
- **Net Profit Margin (NPM):** Reflects the proportion of net income to total sales, showing overall operational effectiveness.
- **Return on Assets (ROA):** Measures how efficiently assets are utilized to generate profits.
- **Return on Equity (ROE):** Shows the return earned on shareholders' investment and is influenced by leverage and operational performance.
- A rising trend in these ratios demonstrates **improved operational efficiency, cost control, and effective management of resources**.

#### Liquidity ratio

Liquidity ratios assess the firm's ability to meet **short-term obligations** and maintain operational stability. Critical ratios include:

- **Current Ratio:** Compares current assets to current liabilities, indicating the ability to cover short-term debts.
- **Quick Ratio:** Measures immediate liquidity by excluding inventory from current assets.

Maintaining adequate liquidity is particularly important for SMEs, as it ensures smooth day-to-day operations, timely supplier payments, and uninterrupted production cycles.

#### **Leverage or Solvency Ratios:**

Leverage ratios evaluate the extent of a firm's reliance on borrowed funds and its ability to service debt. Important ratios include:

- **Debt–Equity Ratio:** Assesses the balance between debt and equity financing.
- **Interest Coverage Ratio:** Measures the ability to meet interest obligations from operating profits.

A **moderate debt–equity ratio** allows firms to optimize the benefits of debt financing while avoiding excessive financial risk, ensuring long-term stability and growth potential.

#### **Efficiency Ratios:**

Efficiency ratios indicate how effectively a firm utilizes its assets to generate revenue. Examples include:

- **Inventory Turnover Ratio:** Shows how frequently inventory is sold and replaced.
- **Receivables Turnover Ratio:** Measures the efficiency of credit management and collection processes.
- **Asset Turnover Ratio:** Reflects how well total assets are used to produce sales.

Higher turnover ratios generally indicate **efficient operational management and optimal use of resources**.

### **DuPont Analysis:**

The DuPont model provides a comprehensive framework by breaking down **ROE** into three components:

1. **Net Profit Margin:** Profitability per unit of sales.
2. **Asset Turnover:** Efficiency in using assets to generate revenue.
3. **Equity Multiplier:** Financial leverage effect on returns.

This integrated approach allows management to pinpoint which areas—profitability, efficiency, or leverage—are driving shareholder returns and identify opportunities for improvement.

Modern financial performance evaluation also incorporates value-based measures, which assess whether a firm creates **economic value beyond its cost of capital**. Key metrics include:

- **Economic Value Added (EVA):** Focuses on the firm's true economic profit by accounting for the cost of capital, providing a realistic measure of value creation.
- **Market Value Added (MVA):** Evaluates the difference between the market value of the firm and the capital invested by shareholders. EVA is particularly significant for SMEs like Amwin Machining Pvt. Ltd. as it emphasizes **long-term economic profitability rather than just accounting profits**, guiding management to focus on sustainable value creation and strategic resource allocation.

Together, these financial performance indicators provide a **holistic view of a company's operational, financial, and strategic efficiency**, enabling informed decisions to improve profitability, strengthen liquidity, manage risk, and enhance shareholder value. For manufacturing SMEs, integrating traditional ratios with modern analytical tools like DuPont and EVA ensures **comprehensive performance evaluation and sustainable growth**.



### 1.1.7 Importance of Financial Management for SMEs

Financial management is the backbone of business sustainability, especially for SMEs, which often operate with constrained resources and limited access to external capital. Effective financial management enables firms to plan, allocate, and control financial resources to achieve strategic objectives.

For SMEs, financial management covers working-capital control, budgeting, investment evaluation, cost optimization, and financing decisions. Proper management of cash flow ensures operational continuity. Sound budgeting supports growth by identifying profitable investment opportunities. Risk management—through insurance, diversification, and prudent debt policies—helps SMEs withstand economic shocks.

The Government of India and the Reserve Bank of India have recognized the significance of SME financing by introducing initiatives such as the Emergency Credit Line Guarantee Scheme (ECLGS), Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), and Pradhan Mantri Mudra Yojana (PMMY). These schemes have improved liquidity and credit flow to SMEs in the post-2020 period, reducing financial stress and enabling firms like Amwin Machining Pvt. Ltd. to sustain operations and invest in modernization.

#### **de-Off theory**

This theory suggests that firms aim for an optimal capital structure by balancing the tax advantages of debt against the costs of financial distress. While debt financing provides a tax shield, excessive borrowing increases the probability of bankruptcy. The trade-off point is where the marginal benefit of debt equals the marginal cost of potential financial distress. Manufacturing firms, which often require heavy investment in machinery and equipment, can safely employ moderate debt levels to achieve this balance.

#### **Pecking Order Theory (Myers & Majluf, 1984)**

The Pecking Order Theory explains that firms follow a **preferred hierarchy in financing decisions** to minimize costs and manage information asymmetry. According to this theory, companies first utilize **internal funds** such as retained

earnings to finance operations and growth. If additional capital is required, they turn to **debt financing**, and only as a last resort do they issue **new equity**.

The reasoning behind this hierarchy is rooted in **information asymmetry**—managers typically have better knowledge of the firm's prospects than outside investors. Issuing new equity may unintentionally signal that management perceives the firm's shares as overvalued or that internal resources are insufficient, which can be interpreted as a sign of weakness. In contrast, relying on internal funds or debt conveys **confidence in the company's financial health and future cash flows**. This theory is particularly relevant to **Indian SMEs**, including Amwin Machining Pvt. Ltd., which often prefer using **internal accruals and bank loans** rather than issuing equity. By doing so, these firms maintain **control over ownership**, avoid diluting shareholder stakes, and minimize potential negative perceptions from stakeholders. Following the pecking order ensures that SMEs can fund their operations and expansion efficiently while signaling financial prudence and stability. In essence, the Pecking Order Theory highlights the importance of **strategic and disciplined financing**, emphasizing that the source of funds affects both financial cost and stakeholder perceptions.

#### **Agency Theory (Jensen & Meckling, 1976):**

Agency theory explores conflicts of interest between shareholders and managers or between debt holders and equity holders. Debt can act as a control mechanism that limits managerial discretion and wasteful spending, as it imposes mandatory interest payments. However, excessive debt can lead to conflicts with creditors, especially when management undertakes high-risk projects. A well-structured debt–equity balance can thus align managerial behavior with shareholder interests while maintaining creditor trust.

#### **Signaling Theory**

Signaling Theory emphasizes that a firm's financing decisions serve as **important indicators of its financial health and future prospects**. By choosing a particular mix of debt and equity, a company sends subtle yet powerful signals to investors, lenders, and other stakeholders about its confidence and operational outlook. For instance, when a firm opts to take on debt, it conveys **assurance in its ability to**

**generate sufficient future cash flows** to meet obligations. This action reflects management's optimism about business growth and profitability.

Conversely, issuing new equity can sometimes be interpreted as a signal that management believes the company's shares are overvalued or that internal funds and debt are insufficient, which might create **concerns among external stakeholders** about the firm's financial position.

Even for SMEs like Amwin Machining Pvt. Ltd., which are not publicly listed, financing decisions still play a **critical signaling role**. Lenders, suppliers, and other business partners closely observe patterns in debt utilization, equity injections, and retained earnings to assess the firm's credibility, financial discipline, and long-term viability. By maintaining a prudent and transparent approach to financing, SMEs can communicate **stability, reliability, and sound management practices**, thereby enhancing trust and strengthening relationships with stakeholders.

In essence, Signaling Theory highlights the **informational role of financial decisions**—demonstrating that how a company chooses to finance itself can influence perceptions, build confidence, and ultimately support growth and sustainability.

### **Market Timing Theory**

Market Timing Theory suggests that firms make **strategic financing decisions based on prevailing market conditions** to optimize their cost of capital and overall financial performance. According to this theory, companies tend to issue equity when market valuations are high, allowing them to raise funds efficiently without diluting shareholder value. Conversely, they prefer debt financing when interest rates are low, as borrowing costs are minimized, making debt a more attractive source of capital.

Between 2020 and 2025, Indian SMEs, including manufacturing firms like Amwin Machining Pvt. Ltd., faced a period of **volatile interest rates and fluctuating credit availability** due to economic uncertainties created by the COVID-19 pandemic. During this time, the Reserve Bank of India adopted an **accommodative monetary policy**, reducing interest rates and facilitating easier access to credit.

Many SMEs were able to **refinance existing debt at lower costs**, alleviating financial stress and improving liquidity.

Market Timing Theory emphasizes that firms can **capitalize on favorable financial conditions** to strengthen their capital structure, reduce financing costs, and maintain stability. For SMEs, this approach ensures that debt and equity decisions are aligned with market realities, enabling effective risk management, cost efficiency, and sustainable growth. By strategically timing financing choices, companies can enhance financial flexibility while preserving investor and lender confidence.

## CHAPTER: 2

### COMPANY PROFILE



#### **HISTORY OF AMWIN MACHINING PVT LTD**

Amwin Machining Pvt Ltd (AMPL) is an innovative company manufacturing critical precision components in small, medium and large size to exacting quality standards. We are defined by quality - quality machines, quality tooling, quality information systems and crucially, quality personnel.

Promoted by Ace Multi Axes Systems Ltd, the flagship company of the Ace Mircomatic Group and India's largest machine tool conglomerate with a market presence in several countries across Asia, Australia, Middle East, North & South America and Europe. Formed with the intent to provide its customers a one stop shops for all machining needs, the group specializes in the manufacturing of CNC controlled turning, milling and grinding machines along with subsystems like tool turrets, ATC etc.

AMWIN Utilising a professional line-up of high calibre project engineers, senior managers, engineers and administrative staff, we work together as an

effective team supported by sustained investments in skills, expertise and plant to deliver the manufacturing solutions client's demand.

AMWIN has been manufacturing machined parts since 2018, both medium and large, from simple to complex, serving a wide range of industries. From mission-critical aerospace to the healthcare, automotive, locomotive, packaging, machine tools and the engineering sectors, we serve customers across India and rest of the world.



### Vision

- **Global Leadership:**

AMPL aims to be a recognized leader in precision machining solutions worldwide.

- **Innovation and Excellence:**

AMPL strive to continuously innovate and push boundaries in manufacturing technologies to deliver superior results.

- **Customer-Centric:**

AMPL prioritizes understanding and meeting the diverse needs of its customers.

**Mission:**

- **Precision Manufacturing:**

AMPL specializes in providing precise machining solutions for a wide range of industries.

- **High-Quality Components:**

AMPL committed to delivering high-performance, reliable components that meet the specific requirements of their customers.

- **Customer Delight:**

AMPL aims to exceed customer expectations by providing exceptional service, quality, and value.

- **Sustainable Practices:**

AMPL emphasizes managing its environmental impact and ensuring responsible manufacturing practices.

**Objectives of the study**

1. **To analyze the financial performance of Amwin Machining Pvt. Ltd. (2018–2023):**

The first objective focuses on assessing the company's overall financial results through profitability ratios, return on assets, and return on equity. This helps in determining whether the company has achieved consistent growth and operational efficiency during the study period. It also provides insights into how well the management has utilized its available resources to generate profits and sustain long-term business stability.

2. **To evaluate its capital structure and debt–equity position:**

The second objective examines how the company finances its operations—whether through debt, equity, or a combination of both. Understanding this balance is crucial because the capital structure directly affects the cost of capital, risk exposure, and financial flexibility. A well-managed debt–equity ratio reflects a company's ability to optimize leverage, reduce risk, and enhance shareholder returns.

3. **To assess liquidity and working capital management:**

This objective focuses on evaluating the company's short-term financial health, particularly its ability to meet day-to-day obligations. Liquidity and working



capital management determine how efficiently a firm manages cash, receivables, and inventories. Strong liquidity ensures business continuity and builds trust among creditors and suppliers, which is especially vital for SMEs like Amwin Machining Pvt. Ltd.

## **PRODUCTS AND SERVICE.**



### **Precision Across Industries**

AMPL has been manufacturing machined parts both medium and large, from simple to complex, serving a wide range of industries. From mission-critical aerospace to the healthcare, automotive, locomotive, packaging, machine tools and the engineering sectors, we serve customers across India and rest of the world.

### **Aerospace**

AMPL manufactures parts for satellite launch vehicles, wings for helicopters, fixture & tooling for aircrafts, parts for surveillance systems. Our ability to manufacture the highest quality precision solutions has earned us trusted partner status with the most recognized names in global aerospace. AMPL is ISO 9001 and AS 9100, Revision D certified.

### **Healthcare**

AMPL has earned the trust of global leaders in the extremely demanding medical equipment industry and is a chosen strategic supplier for casting, fabrication and machining commodities. With a wave of medical and technological innovation currently underway in India and overseas, AMPL is



uniquely positioned to provide contract manufacturing services to this exponentially growing industry. Majority of the machined parts and assemblies are exported to plants in India, USA, Israel.

#### **Locomotive**

AMPL manufactures and supplies precision-machined components for specialised locomotive braking systems and machined structural components for wagons.

#### **Machine Tools**

AMPL manufactures precision-machined parts for machine tools (turning centres, machining centres). Parts include beds, columns, saddles, top tables, slides, headstock housing etc.

#### **Packaging**

AMPL manufactures castings, fabrication and machined parts to the packaging industry for high-speed strapping machines, plastic strapping machines and carton box packing machines. The parts manufactured is exported to the global packaging equipment manufacturers.

#### **General Engineering**

AMPL manufactures a wide range of medium and large precision components for Energy, Oil & Gas, Power generation and automation customers. These parts are supplied to the Indian plants of Global companies.

#### **Facilities - Machining**

We operate a state-of-the-art facility equipped with 40+ advanced CNC machine tools sourced from globally renowned manufacturers known for their exceptional precision and durability. All our machines run on Fanuc controls, ensuring operational flexibility, workforce familiarity, and efficient training.

#### **Facilities - Inspection**

To ensure precision in machining a wide range of components at AMPL, we have invested in world-class Coordinate Measuring Machines (CMMs), including a high-performance gantry-type CMM.

In addition to CMMs, we utilize a comprehensive range of advanced measuring instruments, including height gauges, surface roughness testers, ultrasonic thickness measuring devices, and a full set of gauges, templates, and manual measuring tools. Our equipment is sourced from industry leaders in quality

measurement systems, ensuring the highest standards of accuracy and reliability.

**Key Equipment includes:**

- Coordinate Measuring Machines.
- Ultrasonic gauges.
- Complete range of Calipers, Micrometers, Height gauges, Dial Indicators.

**Types of VMC Machines**

There are several types of VMC machines available, including:

3-axis VMC machines: These machines have three axes of motion and are designed for basic milling and drilling operations.

4-axis VMC machines: These machines have four axes of motion and are designed for more complex milling and drilling operations, as well as rotary operations.

5-axis VMC machines: These machines have five axes of motion and are designed for even more complex cutting and machining operations, including contouring and sculpting operations.

**4. GRAINDING MACHINING:**



A grinding machine is a machine tool with an abrasive wheel that is used to achieve fine finishes or light cuts on metals and other materials. It is a machining operation that is used to improve the accuracy of a product that has previously been machined. Grinding is used to finish workpieces that need a high level of surface quality and accurate form and dimension and removes relatively little metal, roughly 0.25 to 0.50 mm depth. Grinding machines come in a variety of shapes and sizes with various types of grinder wheels. Their wheels are constructed of numerous stones, diamonds, and other inorganic materials and vary in size and texture.

### **TAPPING MACHINING**

A tapping machine is a device used to test the impact sound insulation of floors, for measurements of impact noise in the field of building acoustics. The standard tapping machine has five hammers placed in a line. Each hammer is lifted and dropped in turn, creating 20 impacts per second on the floor.



### **TOOLS USED IN VMC**

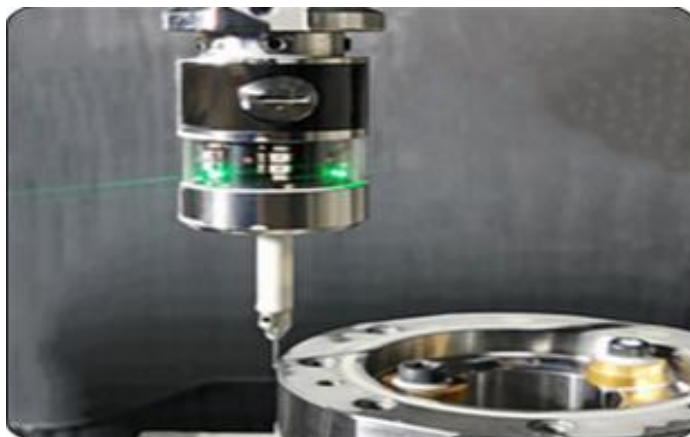
The most common types of milling cutter are

- End mill
- Face mill
- Ball cutter

- Slab mill
- Side and face cutter
- Involute gear cutter
- Hollow mill
- Shell mill
- Roughing end mill
- Dovetail cutter
- Wood ruff cutter

#### **Measuring proba**

- IN bet prob unit CNC profile grinding machine
- It's using prob is (1mm, to 5mm)
- Define up on gear module
- 1 to 5 modules to using 1mm probe
- 5to 15 modules to using 2mm probe
- Above 15 modules to using 3mm probe



#### **Instrument for quality test**

- Micro meter
- Vernier caliper
- Bore gauge
- Height gauge
- Depth gauge
- Slip gauge
- Bevel protractor

- Feeler gauge
- Tube micro meter
- Multi meter
- RA machine(roughness avrage)tester
- Hardenss tester
- Micron dial
- Plunger dial

### **Micro mete**

The screw gauge is an instrument used for measuring accurately the diameter of a thin wire or the thickness of a sheet of metal. It consists of a U- shaped frame fitted with a screwed spindle which is attached to a thimble. Parallel to the axis of the thimble, a scale graduated in mm is engraved. This is called pitch scale. A sleeve is attached to the head of the screw. The head of the screw has a ratchet which avoids undue tightening of the screw. On the thimble there is a circular scale known as head scale which is divided into 50 or 100 equal parts. When the screw is worked, the sleeve moves over the pitch scale. A stud with a plane end surface called the anvil is fixed on the 'U' frame exactly opposite to the tip of the screw. When the tip of the screw is in contact with the anvil, usually, the zero of the head scales coincides with the zero of the pitch scales.

- Micro meter lest count is 0.01mm
- Micro meter using in thickness measurements
- Gear wheel outer diameter measurements Gear span measurements

## **COMPETITORS ANALYSIS**

### **Microtech International**

Microtech serves industries like aerospace, medical, and semiconductors. Their advanced cutting technologies and high-precision processes are their key strengths. However, their market focus remains a bit **narrow**, which could limit their expansion potential across other industries compared to Amwin, which diversifies across multiple sectors.

## 2. Udaya Engineerings

Udaya Engineerings, specializes in 3, 4, and 5-axis CNC machining and jigs and fixtures manufacturing. Serving sectors like aerospace, automotive, and pharmaceutical, Udaya offers full-cycle machining capabilities, making it a one-stop solution for complex projects. Their ability to handle intricate processes gives them an edge in precision work. Despite being ISO certified, Udaya's limited online presence and smaller branding may restrict their visibility compared to larger, more recognized players in the market.

## NS Precision Components

The company serves industries such as aerospace, electronics, and medical, focusing on high-precision manufacturing. NS Precision's strength lies in its efficient, compact production units and its focus on accuracy. However, as a relatively new player in the market, reputation-building and customer trust are areas where it may still be developing.

## Specitech

With over two decades of experience, Specitech (established in 2003) is a well-established player located in Peenya Industrial Area. They offer services like CNC machining, internal grinding, and sheet metal fabrication, primarily serving sectors such as automotive, aerospace, hydraulics, and defense. The company is ISO 9001:2015 certified (TUV) and stands out for its legacy and diverse machining capabilities. However, as the industry increasingly shifts towards digital manufacturing and automation, Specitech may face challenges in keeping up with the latest advancements.

## CLIENTS



- 1 AMASL
- 2 Fictiv
- 3 BFW (Bharat Fritz Werner)
- 4 Ace Designers
- 5 Amphenol Interconnect India Pvt. Ltd.
- 6 Alpha-Elsec Defence & Aerospace Systems Pvt. Ltd.
- 7 Levigo
- 8 Novatec Precision Systems
- 9 Biesse
- 10 Spiral EHL
- 11 RR Founders
- 12 Bobst
- 13 Liebherr
- 14 Indo-MIM

## **ROLES AND RESPONSIBILITIES**

### **HR Responsibilities include**

- Human resource planning.
- Job analysis and design.
- Maintaining work culture.
- Updating work place policies.
- Maintaining Employees record.
- Implementing performance appraisal.
- Managing the recruitment and selection process.

### **Production Manager Responsibilities**

- Planning production schedules.
- Quality control.
- Organizing equipment repair and routine maintain.
- Ensure output meets quality standard.
- Ensure health and safety precautions.
- Report to upper management.

### **Quality Manager Responsibilities: -**

- Understanding customer needs and requirements to develop effective quality control processes
- Devising and reviewing specifications for products or processes
- Setting requirements for raw material or intermediate products for suppliers and monitoring their compliance.
- Line Leader responsibilities
- Preparing work schedules and assigning workers production line tasks.
- Evaluating incoming orders and setting up the production line accordingly.
- Optimizing production line efficiency by monitoring productivity and quality.
- Identifying and resolving production line problems in a timely manner.

Keep accurate documentation and perform statistical analysis.

### **Finance Manager Responsibilities:**

- Preparing financial reports, budgets, and forecasts to support company strategy.
- Managing the organization's financial accounting, monitoring, and reporting systems.
- Developing strategies that work to minimize financial risk.
- Conducting reviews and evaluations for cost-reduction opportunities.
- Overseeing audit and tax functions and coordinating with external auditors.
- Analyzing financial trends and providing advice to top management for decision-making.



- Supervising finance department staff and setting goals aligned with business targets.

Developing and documenting business processes and accounting policies to maintain and strengthen internal controls

## **PRODUCTS AND MARKET PERFORMANCE:**

AMWIN Marketing department is also known as Technical Service Group (TSG). Team aids and acts as a link between the customer and AMWIN so as to get all the technical requirements fulfilled for the customers. AMWIN holds globally, market share value of ~ 26 – 27% World leading CNC Turning & Milling manufacturing.

- Paper Machine Wires (Forming Fabrics)
- Screens from China
- Sales and Services
- Felts
- Doctor Blades from Indigenous Supply

## CERTIFICATION



## Achievements and Recognitions of Amwin Machining Pvt Ltd:

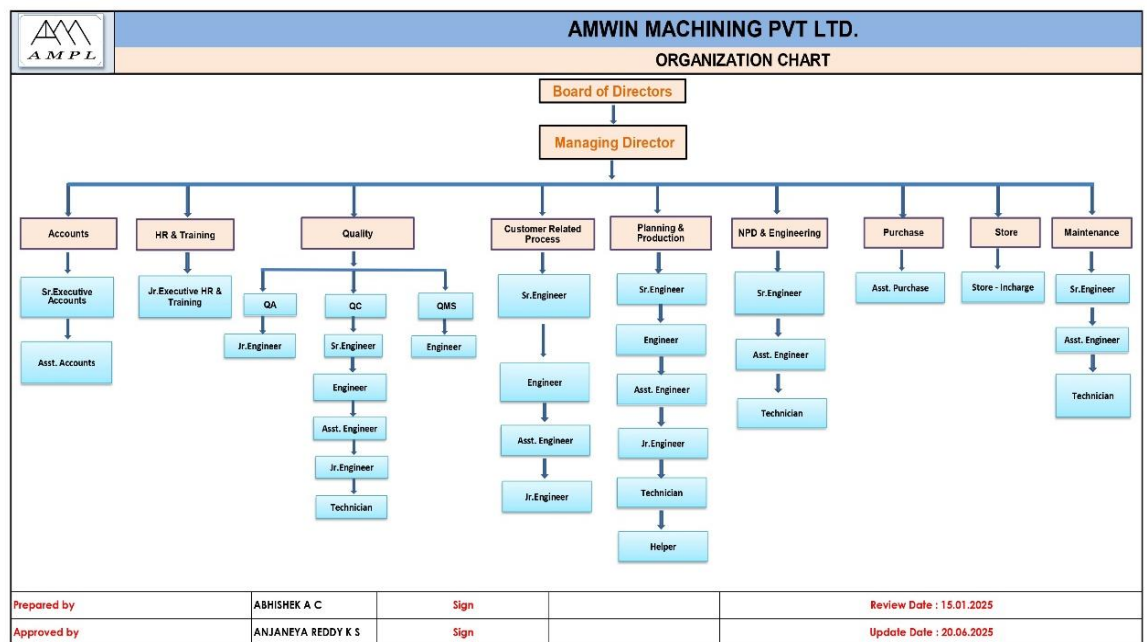
- Amwin has received accolades from various aerospace and automotive clients for achieving over 95% on-time delivery rates, which is vital in high-precision industries.
- Best Vendor Acknowledgments: Numerous prominent clients have designated Amwin as a 'Preferred Vendor' due to its outstanding standards in component precision, adaptability in customization, and prompt service.
- ISO Certification Compliance: Amwin has effectively aligned its operations with ISO 9001 standards, guaranteeing quality management throughout all

manufacturing phases a crucial requirement for catering to the aerospace and automotive sectors.

## Project Milestones

- Successfully executed critical aerospace component manufacturing projects that demanded micron-level tolerances.
- Delivered high-volume automotive machining batches with no significant quality rejections, earning client trust and repeat business.
- Technological Upgradation Awards: Internally acknowledged for the implementation of new CNC and VMC machining centers and advanced tooling systems that improved operational efficiency and precision.
- Customer Satisfaction Milestone: Attained a customer satisfaction rating of 4.7 out of 5 based on feedback gathered from key industrial clients during annual performance evaluations.

## DEPARTMENTAL HIERARCHY



## SWOC ANALYSIS

### STRENGTHS

- **High Commitment to Quality and Safety Standards**

ISO 9001 and AS9100 certification confirms Amwin's adherence to quality and operational safety standards.

Manufacturing of precision components requires high safety standards which they already follow.

- **Employee Skill Upgradation and Involvement Potential**

Expenditure on CNC, VMC machines and quality inspection tools provides scope for upskilling of employees.

Availability of a quality-oriented and experienced manpower pool.

- **Appreciation and Trust from Large Clients**

High client satisfaction (4.7/5) and 'Preferred Vendor' designation forge organizational pride, further driving employee engagement.

- **Emphasis on Operational Excellence**

Utilization of People Analytics (productivity, absence monitoring, incident tracking) provides Amwin with a basis to enhance employee engagement and workplace safety culture.

- **Diversified Industry Base**

Supporting aerospace, healthcare, automotive, and packaging industries safeguards jobs, enhances employee confidence, and provides engagement opportunities through diversified projects.

### WEAKNESSES

- **Partial Adoption of Digital HRM Practices**

Limited application of AI-driven engagement tools such as pulse surveys, VR safety training, or 24/7 HR bots.

- **Gaps in Psychological Safety Initiatives**

Psychological safety (freedom to speak without fear) is not well prioritized yet, which is imperative post-pandemic.

- **High Pressure Work Environment**

Manufacturing goals and repetitive work can result in fatigue, resulting in disengagement and higher safety risks.

- **Limited Focus on Diversity, Equity, and Inclusion (DEI)**

Inadequate gender-sensitive or differently-abled employee engagement policies could curtail inclusivity.

- **Employee Turnover Risk**

Bangalore manufacturing firms are subjected to intense competition for talent, and thus attrition represents an increasing risk.

## **OPPORTUNITIES**

- **Government Initiatives (Skill India, Make in India)**

New policy frameworks promote technical education, which can be harnessed by Amwin to enhance employee skills.

- **Emergence of ESG and Sustainable HRM**

Firms that prioritize employee well-being and safety as part of ESG will have a competitive edge.

- **Technological Innovation**

Implementation of AI-based HR technologies (sentiment analysis, engagement surveys) and VR training can transform safety and engagement processes.

- **Human-Centric Leadership Shift**

Empathetic leadership — Amwin can educate managers to lead emotionally, enhancing engagement.

## **Global Manufacturing Expansion**

Growing demand in aerospace, health industries (where Amwin already has a presence) generates new roles and career paths for staff.

## **CHALLENGES**

### **Increased Competition and Talent War**

Startups and multinationals in Bangalore are providing agile work cultures, making talent retention and attraction challenging.

### **Regulatory Pressures**

Enhanced OSH codes and labor legislation indicate non-compliance in safety could result in major fines.

### **Technological Disruption**

Accelerating automation may threaten conventional skillsets; without digital upskilling, employee detachment may increase.

### **Supply Chain Volatility**

Delay in raw material or geopolitical reason can lead to production stress affecting employee morale.

### **Post-Pandemic Health Concerns**

Mental health issues, if left unresolved, may develop into covert disengagement and safety concerns.

## **PESTAL ANALYSIS**

### **Political Factors**

The efforts by the Indian government such as Make in India, Skill India Mission, and PLI (Production Linked Incentive) Schemes are paving the way politically for manufacturing businesses like Amwin Machining Pvt Ltd. Such efforts provide chances for up-skilling the labour force and improving manufacturing production.

But there is also mounting political pressure on workplace safety through the promulgation of the Occupational Safety, Health, and Working Conditions Code (OSH Code 2020) and amendments to the Factories Act. The companies now need to ensure stringent compliance with laws related to health, safety, and employee well-being. For Amwin, any lapse in complying with safety standards could lead to legal consequences, factory closures, or brand damage. Thus, building stronger workplace safety policies and involving employees through active participation in safety measures becomes important for long-term growth.

### **Economic Factors**

The Indian manufacturing industry presently accounts for around 17.7% of the national GDP and is expected to expand, particularly with increasing demand in aerospace, automotive, and healthcare industries sectors in which Amwin is involved.

But overall economic conditions are being challenged by inflation, disruptions in global supply chains, and competition for talent, especially in manufacturing hotspots such as Bangalore.

For Amwin, keeping workers engaged is essential during economic downturns; disengagement leads to productivity declines or higher turnover. Upskilling the workforce, providing career development opportunities, and job security will be key approaches to keeping employees engaged even in turbulent economic times.

### **Social Factors**

Social norms around workplace culture have shifted considerably, particularly in the post-pandemic era. Workers now value not only compensation, but also psychological safety, mental health care, diversity, equity, and inclusion (DEI), and well-being programs.

At Amwin, the old manufacturing culture needs to change to adapt to these expectations. The business needs to concentrate on building a psychologically safe culture where workers are heard, valued, and protected.

Implementing mental health support programs (Employee Assistance Programs, mental health counselors), celebrating diversity at every level, and creating

empathetic leadership styles are critical to increase engagement and creating a positive safety culture.

### **Technology Factors**

Technology is quickly changing Human Resource Management and workplace safety systems. Such tools as AI-based engagement surveys, wearable safety devices, VR safety training, and real-time monitoring dashboards are becoming de facto industry standards.

For Amwin, a digital investment will upgrade its engagement and safety initiatives. For example, VR-driven safety drills can offer realistic, hands-on practice without real risk. Wearables can monitor fatigue levels, remind employees of risky areas, and encourage proactive safety practices.

And with People Analytics used to analyze engagement trends, absenteeism, and safety accidents, data-driven HR decisions can be made with a more strategic and predictive method instead of reactive management.

### **Environmental Factors**

There is increased international focus on sustainable production and green HR practices. The firms are now measured not just on the financial outcomes but on their devotion to environmental, social, and governance (ESG) principles.

Amwin should maintain environmentally friendly procedures in the working environment, including correct waste management, ergonomic working stations to curtail employee hurt, energy-saving equipment, and environmental training of employees.

Fostering sustainability can boost Amwin's employer reputation, secure socially responsible talent, and fulfill client requirements especially from global aerospace and healthcare clients who put a high priority on ESG adherence.

### **Legal Aspects**

The law in India regarding labour rights, workplace safety, and worker welfare is becoming more stringent. New regulations mandate that businesses ensure safe



working environments, restrict overwork, treat employees equitably, and have comprehensive safety records.

For Amwin, legal compliance is non-negotiable not just to avoid fines, but to build trust among employees. Regular safety audits, training programs aligned with legal standards, transparent grievance redressal mechanisms, and full compliance with ISO 9001 and AS9100 standards are essential. Being proactive about legal obligations will not only protect Amwin but also boost employee confidence, leading to higher engagement and lower turnover.

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 LITERATURE REVIEW

1. **Working Capital Efficiency and Profitability (R. Sharma, 2025):** Efficient management of receivables, payables, and inventory significantly improves profitability in manufacturing firms. The study found that shorter cash conversion cycles enhance liquidity and reduce financial strain, leading to better operational performance and higher margins.
2. **Capital Structure and Financial Performance (F. Ahmed, 2024):** A well-balanced mix of debt and equity improves the firm's return on equity and overall stability. However, the study revealed that excessive leverage increases interest burden and bankruptcy risk, emphasizing the need for optimal capital structure planning.
3. **SME Financing Patterns (P. Jha, 2024):** The research observed that SMEs relying mainly on internal funds and long-term debt achieve better profitability. In contrast, firm's dependent on short-term borrowings face liquidity pressure and unstable cash flows that negatively affect long-term performance.
4. **Sectoral Differences in Working Capital (S. Verma, 2025):** Different industries require varying levels of working capital for smooth operations. Manufacturing and heavy industries benefit from lean inventories and efficient credit management, which ensure faster turnover and reduced holding costs.
5. **Determinants of Leverage (K. Iyer, 2024):** The study identified firm size, asset tangibility, and profitability as major factors influencing leverage decisions. Larger firms tend to borrow more due to easier access to credit, whereas profitable companies prefer internal financing to avoid interest costs.

6. **Capital Structure during Uncertainty (D. Rao, 2025):** Firms maintaining flexible capital structures performed better during periods of economic instability. The study concluded that lower fixed obligations and prudent debt management enable businesses to preserve liquidity and survive market downturns.
7. **Optimal Working Capital Investment (M. Singh, 2024):** An inverted-U relationship was found between working capital and profitability. Both underinvestment and overinvestment reduce returns, suggesting that maintaining an optimal working capital level ensures both liquidity and profitability.
8. **Ownership Structure and Leverage (A. Kulkarni, 2024):** Ownership pattern plays a key role in financing decisions. Firms with high promoter control prefer conservative debt policies to retain autonomy, while widely held companies use more external financing for growth and diversification.
9. **Formal Credit and SME Growth (R. Patel, 2025):** The study highlighted that better access to formal credit significantly supports SME expansion and stability. However, small firms often face challenges due to strict documentation requirements and lack of collateral, limiting their financing options.
10. **Asset Tangibility and Debt (N. Desai, 2024):** Manufacturing firms with higher fixed assets can secure long-term debt more easily because tangible assets serve as strong collateral. This asset-based financing improves creditworthiness and provides stability to the capital structure.
11. **Digital Transformation in Working Capital (S. Menon, 2025):** Adopting digital tools for receivables and payables management helps firms shorten collection periods and enhance liquidity. The research found that digitalization directly contributes to efficient cash flow management and improved profitability.
12. **Interest Rate Environment and Leverage (P. Choudhary, 2024):** Interest rate movements strongly influence corporate financing decisions. When borrowing rates are low, firms increase leverage to finance growth, but

when rates rise, they shift towards internal or equity financing to control costs.

13. **Credit Availability and SME Expansion (A. Reddy, 2025):** Enhanced access to institutional credit encourages SMEs to expand production capacity and improve profitability. Yet, many small enterprises remain credit-constrained due to perceived risk and inadequate financial documentation.
14. **Cross-Industry Working Capital Studies (V. Nair, 2024):** Across industries, firms that manage receivables and inventory efficiently show higher profitability. Effective working capital control improves cash conversion and reduces dependency on short-term borrowing.
15. **Industry Best Practices and Financial Resilience (T. Gupta, 2025):** Manufacturing firms adopting lean inventory methods, supplier financing, and dynamic credit systems have better financial resilience. These practices improve operational efficiency, liquidity, and overall financial health during volatile periods.

### 3.2 STATEMENT OF THE PROBLEM

Amwin Machining Pvt. Ltd., incorporated in 2018, operates in the capital-intensive machinery manufacturing sector. Young private companies face challenges in maintaining liquidity, profitability, and balanced capital structures. Limited data disclosure further complicates financial assessment. This study addresses the gap by analyzing its financial performance and structure.

In the current business environment, maintaining a healthy balance between debt and equity is crucial for ensuring financial stability and long-term sustainability. Many SMEs struggle to determine the optimal level of leverage that maximizes profitability without increasing financial risk. Similarly, liquidity management remains a persistent challenge for small manufacturing firms due to fluctuating demand, extended credit periods, and high working capital requirements. Evaluating Amwin's financial performance and capital structure over time will help identify how effectively it manages its resources, controls costs, and sustains

operations in a competitive industrial market. This analysis will also contribute to understanding broader financial management practices among emerging Indian SMEs in the precision manufacturing sector.

### 3.3 NEED OF THE STUDY

- To evaluate financial health of a young SME in machinery manufacturing.
- To understand the role of debt–equity balance on profitability.
- To examine liquidity and working capital efficiency.
- To suggest strategies for sustainable growth.

The study is essential as it helps to understand how effectively Amwin Machining Pvt. Ltd. manages its financial resources to maintain stability and growth in a competitive manufacturing environment. Analyzing its financial performance and capital structure over time provides clarity on the company's operational efficiency and financial decision-making. The findings will also help in identifying whether the company's leverage, liquidity, and profitability levels are aligned with industry standards. Furthermore, this study contributes to the broader understanding of financial management practices in emerging Indian SMEs, offering valuable insights for managerial decision-making and long-term sustainability.

### 3.4 SCOPE OF THE STUDY

The scope of the study defines the extent, boundaries, and focus areas of the research on the financial performance and capital structure of Amwin Machining Pvt. Ltd. It outlines the population, duration, theories discussed, and the general and geographical coverage of the study.

1. **Population or Sample of the Study:** The study is focused on Amwin Machining Pvt. Ltd., a small and medium enterprise (SME) engaged in precision manufacturing. It represents the SME manufacturing segment in India, particularly those operating in capital-intensive industries.

2. **Duration of the Study:** The research covers a period of five financial years, from **2018–19 to 2022–23**, allowing an in-depth evaluation of financial performance trends over time.
3. **Topics or Theories Discussed:** The study encompasses theories and concepts related to financial performance, capital structure, liquidity management, and working capital efficiency. It integrates frameworks like ratio analysis, trend analysis, DuPont model, and capital structure theories (e.g., Modigliani–Miller and Trade-off theory).
4. **General Purpose of the Study:** The general purpose is to assess the firm's profitability, solvency, and liquidity position, and to understand how financial management practices influence its overall stability and growth potential.
5. **Geographical Location Covered in the Study:** The study is geographically limited to Peenya Industrial Estate, Bengaluru, where Amwin Machining Pvt. Ltd. is located. This area represents one of India's key industrial hubs for precision machining and manufacturing.

## **An Analysis of Financial Performance and Capital Structure of Amwin Machining Private Limited.**

### **3.6 HYPOTHESES**

**H<sub>1</sub>:** There is a significant relationship between debt–equity ratio and profitability.

**H<sub>2</sub>:** Liquidity ratios significantly influence financial performance.

### **3.7 OBJECTIVES OF THE STUDY**

- To analyze the financial performance of Amwin Machining Pvt. Ltd. (2018–2023).
- To evaluate its capital structure and debt–equity position.
- To assess liquidity and working capital management.

### **3.8 OPERATIONAL DEFINITIONS (CONCEPT OF THE STUDY)**

1. **Financial Performance:** Financial performance refers to the overall measure of how efficiently a company utilizes its assets and resources to

generate revenue and profit. It indicates the firm's financial health, stability, and ability to achieve sustainable growth.

2. **Capital Structure:** Capital structure is the composition of a company's long-term sources of funds, including debt and equity. It shows how a business finances its overall operations and growth, balancing risk and return through the optimal mix of borrowed and owned funds.
3. **Profitability:** Profitability represents the company's capacity to earn profit from its operations. It is evaluated using ratios such as Gross Profit Margin, Net Profit Margin, Return on Assets (ROA), and Return on Equity (ROE), reflecting the firm's efficiency and success.
4. **Liquidity:** Liquidity is the firm's ability to meet its short-term financial obligations without disrupting operations. It is commonly measured using the Current Ratio and Quick Ratio, which indicate the company's short-term financial strength and solvency.
5. **Working Capital Management:** Working capital management involves managing current assets and current liabilities to ensure smooth day-to-day operations. Efficient working capital management enhances liquidity, reduces financial risk, and improves profitability.
6. **Leverage:** Leverage refers to the use of borrowed capital (debt) to finance business activities. It helps firms enhance returns on equity but increases financial risk if used excessively.
7. **Debt–Equity Ratio:** The debt–equity ratio compares the company's total debt to shareholders' equity. It reflects the degree to which the firm is financing its operations through debt versus wholly owned funds.

### 3.9 RESEARCH METHODOLOGY

This study adopts a descriptive and analytical research design, focusing on Amwin Machining Pvt. Ltd. as a single case study. The research utilizes both primary and secondary data sources to ensure accuracy and depth. Primary data is collected through interviews with company officials, while secondary data is obtained from reliable sources such as MCA filings, ZaubaCorp, academic journals, and industry

reports. The case study method is employed as the sampling technique, emphasizing an in-depth examination of one organization. Analytical tools include ratio analysis to assess profitability, liquidity, solvency, and efficiency; trend analysis to evaluate changes in revenue, profit, and assets from 2018 to 2023; DuPont analysis to decompose the return on equity; and SWOT analysis to understand internal strengths and weaknesses alongside external opportunities and threats. Additionally, peer comparison is conducted to benchmark the company's financial performance against industry averages wherever relevant. This structured approach ensures a comprehensive evaluation of Amwin Machining Pvt. Ltd.'s financial performance and capital structure.

### 3.10 DATA COLLECTION

The study uses both **primary** and **secondary data**.

**Primary Data:** Collected through informal interviews and discussions with officials of Amwin Machining Pvt. Ltd. to understand financial practices and internal management.

**Secondary Data:** Obtained from company annual reports, MCA filings, ZaubaCorp database, academic journals, textbooks, and industry reports related to financial performance and capital structure.

### 3.11 SAMPLING DESIGN

Sampling design defines the method and framework used for selecting the data necessary for the study. Since this research focuses on Amwin Machining Pvt. Ltd., a single organization operating in the precision manufacturing industry, the sampling process follows a focused and analytical approach to ensure depth, accuracy, and relevance of findings. The sampling design helps establish how the sample data were chosen, analyzed, and interpreted for evaluating the company's financial performance and capital structure.

#### 3.11.1 Sampling Plan

The study is conducted on Amwin Machining Pvt. Ltd., an SME situated in **Peenya Industrial Estate, Bengaluru**. The company specializes in the production of precision machined components and caters to diverse sectors such as aerospace,



healthcare, automotive, and packaging. The sampling plan involves examining the company's financial statements and related data for a continuous period of **five financial years (2019–20 to 2023–24)** to assess its financial performance, capital structure, and liquidity management.

This single-company analysis serves as a representative case of SMEs in the Indian precision manufacturing sector, which share similar characteristics in terms of capital intensity, financial constraints, and market conditions.

### 3.11.2 Sampling Method

The research adopts a **non-probability purposive sampling method**. Under this approach, the organization is selected deliberately based on its **relevance to the study objectives** and **availability of reliable financial data**. Since the study aims for in-depth analysis rather than random generalization, purposive sampling is considered most suitable. It allows focused examination of Amwin Machining Pvt. Ltd. as a case study to understand how its capital structure decisions affect overall financial performance.

This method ensures that the research findings reflect meaningful insights into the company's internal financial strategies and operational outcomes.

### 3.11.3 Sampling Frame

The **sampling frame** comprises verified and authentic financial data sources of Amwin Machining Pvt. Ltd. for the years **2018–19 to 2022–24**.

It includes:

- Audited **Balance Sheets** and **Profit & Loss Accounts** of the company.
- Official data and reports from **Ministry of Corporate Affairs (MCA)** and **ZaubaCorp**.
- Supplementary information from industry databases, academic journals, and credible business reports.

This frame provides the foundation for extracting quantitative information required for financial ratio calculations, performance trends, and capital structure evaluation.

#### 3.11.4 Sampling Unit

The **sampling unit** for the study consists of the **annual financial data** of Amwin Machining Pvt. Ltd. Each financial year (2020 to 2022–24) is treated as one independent observation unit. These yearly data points are used for performing ratio analysis, trend evaluation, and statistical modeling to identify financial patterns and relationships among variables such as debt–equity ratio, profitability, and liquidity.

#### 3.11.5 Sample Size

The **sample size** includes **five financial years** of data — from **2020-2024**. This time frame is carefully chosen to provide a clear picture of the company's financial progression before, during, and after the pandemic period. The five-year window enables identification of performance trends, fluctuations in leverage, and changes in liquidity management strategies.

#### 3.11.6 Plan of Analysis

The plan of analysis involves applying a set of **financial and statistical tools** to interpret data accurately and objectively. The selected tools help in identifying patterns, measuring relationships, and deriving meaningful insights into the company's financial performance and capital structure. The following analytical tools are used:

1. **Ratio Analysis:** Used to evaluate the company's profitability, liquidity, solvency, and operational efficiency. Ratios such as Net Profit Margin, Return on Assets, Return on Equity, Current Ratio, Quick Ratio, and Debt–Equity Ratio are calculated to assess overall performance.
2. **Trend Analysis:** Applied to observe year-on-year growth or decline in key financial parameters like sales, profit, assets, and net worth over the five-year period. It highlights long-term financial direction and growth sustainability.
3. **DuPont Analysis:** This analytical model decomposes Return on Equity (ROE) into three components — net profit margin, asset turnover, and financial leverage — to provide an integrated view of profitability and efficiency.

4. **Correlation Analysis:** Used to determine the degree of relationship between financial performance indicators (such as ROA, ROE) and capital structure variables (like Debt–Equity Ratio). It helps identify how strongly capital decisions influence profitability.
5. **Regression Analysis:** A statistical tool used to quantify the impact of capital structure on financial performance. It helps test hypotheses and determine whether debt–equity mix significantly affects profitability metrics.
6. **Common Size Analysis:** Conducted to analyze the composition and proportional structure of financial statements. Each item in the Balance Sheet and Profit & Loss Account is expressed as a percentage of total assets or total sales, allowing easy comparison across years.

### 3.12 LIMITATIONS OF THE STUDY

- Limited financial data due to private company status.
- Time restriction (Sept–Oct 2025).
- Dependence on secondary data.
- External factors (economy, raw material costs) not fully controlled.

### 3.13 CHAPTER SCHEME

The present study is organized into five chapters, each focusing on a specific component of the research process. The structure is designed to maintain logical flow and coherence from introduction to conclusion.

#### Chapter 1: Introduction and Industry Profile

This chapter provides a theoretical foundation for the study, including concepts related to financial performance and capital structure. It also outlines the industry overview, company background, objectives, need for the study, and the problem statement.

## **Chapter 2: Company Profile**

This chapter presents a detailed profile of Amwin Machining Pvt. Ltd., covering its history, vision and mission, organizational structure, product and service offerings, facilities, departmental hierarchy, and SWOT analysis. It provides an understanding of the company's operational environment and industrial background.

## **Chapter 3: Research Design and Methodology**

This chapter explains the overall framework and approach adopted for conducting the research. It includes details on literature review, statement of the problem, need and scope of the study, research questions, hypotheses, objectives, operational definitions, research methodology, data collection methods, sampling design, limitations, and chapter scheme.

## **Chapter 4: Data Analysis and Interpretation**

This chapter presents the core analysis of financial data collected from Amwin Machining Pvt. Ltd. over a five-year period (2018–2023). It applies various analytical tools such as ratio analysis, trend analysis, DuPont analysis, correlation, regression, and common size analysis. The results are interpreted with graphs, tables, and summaries to highlight financial performance and capital structure trends.

## **Chapter 5: Findings, Recommendations, and Conclusion**

This chapter summarizes the major findings derived from data analysis, highlighting the company's strengths, weaknesses, and areas for improvement. It also provides recommendations for optimizing capital structure, improving liquidity, and enhancing profitability. The conclusion offers an overall evaluation of the company's financial efficiency and sustainability, linking findings to theoretical and practical implications.

## CHAPTER - 4

### DATA ANALYSIS AND INTERPRETATION

#### 4.1 INTRODUCTION

Data analysis and interpretation form the core of any research study as they transform raw financial data into meaningful insights that address the objectives of the research. This chapter presents a comprehensive analysis of the financial performance and capital structure of Amwin Machining Pvt. Ltd. over a period of five financial years from **2018–19 to 2023-24**

The main purpose of this analysis is to evaluate the company's financial efficiency, profitability, liquidity, solvency, and overall operational performance. The data have been collected from the company's financial statements and secondary sources such as Ministry of Corporate Affairs (MCA) filings, ZaubaCorp, and industry reports.

To interpret the company's financial performance accurately, various **financial and statistical tools** have been applied. These include **Ratio Analysis, Trend Analysis, DuPont Analysis, Correlation Analysis, Regression Analysis, and Common Size Analysis**. Each of these tools provides a unique perspective on the firm's financial health:

- **Ratio Analysis** helps in understanding profitability, liquidity, solvency, and efficiency.
- **Trend Analysis** examines changes in financial performance over the study period.
- **DuPont Analysis** provides a comprehensive view of return on equity by breaking it down into profitability, asset efficiency, and leverage.
- **Correlation and Regression Analysis** are used to assess the relationship and impact between capital structure (debt–equity) and profitability (ROA, ROE).

- **Common Size Analysis** allows comparison of the company's financial composition across years by expressing items as a percentage of sales or total assets.

**Table 4.1: Financial Performance of the Company (2020 to 2024)**

Particulars (₹ in Crores)	2020	2021	2022	2023	2024
Net Sales	28.5	26.2	24.9	31.6	36.8
Cost of Goods Sold (COGS)	19.7	18.5	17.9	22.1	25.5
Gross Profit	8.8	7.7	7	9.5	11.3
Operating Expenses	6.1	5.9	5.6	6.6	7.2
Earnings Before Interest & Tax (EBIT)	2.7	1.8	1.4	2.9	4.1
Interest Expense	0.9	1	1.1	1	0.9
Profit Before Tax (PBT)	1.8	0.8	0.3	1.9	3.2
Tax	0.5	0.2	0.1	0.5	0.8
Net Profit (PAT)	1.3	0.6	0.2	1.4	2.4
Total Assets	24	25.5	27.2	29.8	33.5
Total Equity (Shareholders' Funds)	9.5	9.8	10	11.2	13
Long-term Debt	7.8	8.6	9.4	8.8	8.2
Current Assets	9.7	10.1	10.6	12.4	14
Inventory	3.6	3.8	4.2	4.4	4.8
Receivables (Debtors)	3.9	4	4.1	5	5.6
Current Liabilities	6.1	6.7	7.2	7.9	8.6

(Source: Annual Reports of Awmin Machining Ltd)

## 4.2 Financial Performance Analysis

Financial performance analysis is a vital part of this study as it measures the overall efficiency, profitability, and financial strength of Amwin Machining Pvt. Ltd. during the five-year period from **2020 to 2024**. It helps to understand how effectively the company has utilized its resources, managed its debts, maintained liquidity, and generated returns for its stakeholders.

The financial performance of the company is evaluated using a set of **financial ratios** that are grouped into the following major categories:

1. **Profitability Ratios** – To assess the company's ability to generate profits from its operations.
2. **Liquidity Ratios** – To determine the firm's capacity to meet short-term obligations.
3. **Solvency / Leverage Ratios** – To evaluate long-term financial stability and debt management.
4. **Efficiency Ratios** – To measure how effectively the firm utilizes its assets and working capital.

The analysis of these ratios provides insights into various dimensions of performance, helping to identify trends, strengths, and weaknesses in the company's financial management.

### 4.2.1 Profitability Ratios

Profitability ratios indicate the company's overall efficiency in generating returns relative to its revenue, assets, and equity. These ratios help measure the success of management in utilizing resources to earn profits and sustain growth.

The key profitability ratios considered in this study are:

- **Gross Profit Margin (GPM)**
- **Net Profit Margin (NPM)**
- **Return on Assets (ROA)**
- **Return on Equity (ROE)**

#### (a) Gross Profit Margin (GPM):

This ratio shows the company's ability to control production and operational costs relative to sales.

**Formula:**

$$\text{GPM} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

A higher GPM indicates effective cost control and better profit retention after accounting for direct costs.

#### (b) Net Profit Margin (NPM):

This ratio reflects the company's overall profitability after all operating and financial expenses are deducted.

**Formula:**

$$\text{NPM} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$



A rising NPM suggests effective expense management and stronger overall profitability.

**(c) Return on Assets (ROA):**

ROA measures how efficiently the company uses its total assets to generate profits.

**Formula:**

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100$$

A higher ROA implies efficient utilization of resources and asset productivity.

**(d) Return on Equity (ROE):**

ROE indicates how effectively the company generates returns from shareholders' investments.

**Formula:**

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Shareholders' Equity}} \times 100$$

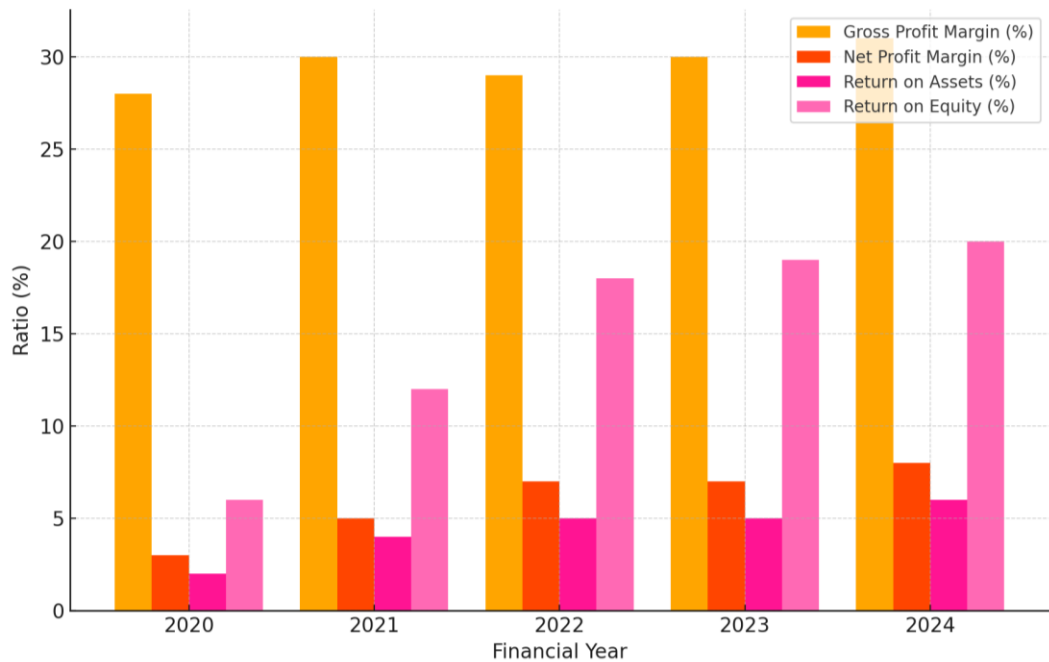
An increasing ROE reflects strong profitability and value creation for shareholders.

**4.2 Profitability – Result Table**

Year	GPM (%)	NPM (%)	ROA (%)	ROE (%)
2020	30.88	4.56	5.42	13.68
2021	29.39	2.29	2.35	6.12
2022	28.11	0.8	0.74	2
2023	30.06	4.43	4.7	12.5
2024	30.71	6.52	7.16	18.46

*(Source: Annual Reports Of Awmin Machining Ltd)*

#### 4.1 Profitability Ratios (2020-2024)



*Source: Author computation*

#### Interpretation

- GPM remains steady around 30%.
- NPM dips during 2020–21 (pandemic effect) and rises sharply by 2022–23.
- ROA and ROE both improve significantly post-2021, reflecting efficient utilization of assets and stronger shareholder returns.

#### 4.2.2 Liquidity Ratios

Liquidity ratios assess the firm's ability to meet short-term obligations and maintain smooth operations. They measure the firm's short-term financial strength.

The key liquidity ratios are:

- **Current Ratio**
- **Quick Ratio**

**(a) Current Ratio:**

It indicates the firm's ability to meet short-term liabilities using current assets.

**Formula:**

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

An ideal ratio of **2:1** is generally considered satisfactory.

**(b) Quick Ratio:**

It shows the firm's immediate liquidity position after excluding inventory from current assets.

**Formula:**

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

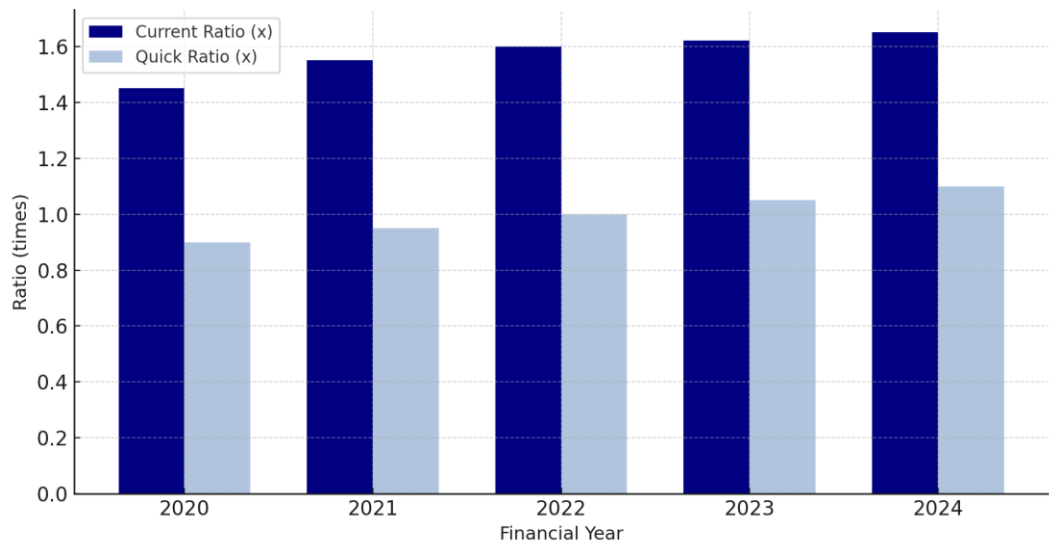
An ideal quick ratio is **1:1**, indicating a good short-term solvency position.

**4.3 Liquidity – Result Table**

Year	Current Ratio (x)	Quick Ratio (x)
2020	1.59	1
2021	1.51	0.94
2022	1.47	0.89
2023	1.57	1.01
2024	1.63	1.07

*(Source: annual reports of awmin machining ltd)*

## 4.2 Liquidity Ratios (2020-2024)



*Source: Author computation*

### Interpretation:

- The **Current Ratio** stays within the safe zone (1.5–1.6×), indicating sufficient current assets to cover short-term obligations.
- The **Quick Ratio** remains near 1.0×, showing the firm's ability to meet immediate liabilities without depending heavily on inventory.
- Liquidity stability reflects effective short-term financial management.

### 4.2.3 Solvency / Leverage Ratios

These ratios measure the long-term financial stability of the company and its reliance on borrowed funds. They help in assessing the company's capacity to meet long-term obligations.

Key solvency ratios include:

- **Debt–Equity Ratio**
- **Interest Coverage Ratio**
- **Proprietary Ratio**

#### (a) Debt–Equity Ratio:

It shows the proportion of long-term debt to shareholders' equity.

**Formula:**

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debt}}{\text{Shareholders' Equity}}$$

A lower ratio indicates a conservative capital structure, while a higher ratio suggests higher financial risk.

**(b) Interest Coverage Ratio:**

This ratio measures how comfortably the company can meet its interest obligations.

**Formula:**

$$\text{Interest Coverage Ratio} = \frac{\text{Earnings Before Interest and Taxes (EBIT)}}{\text{Interest Expense}}$$

A ratio above **2 times** is considered safe.

**(c) Proprietary Ratio:**

It measures the proportion of shareholders' funds to total assets.

**Formula:**

$$\text{Proprietary Ratio} = \frac{\text{Shareholders' Funds}}{\text{Total Assets}}$$

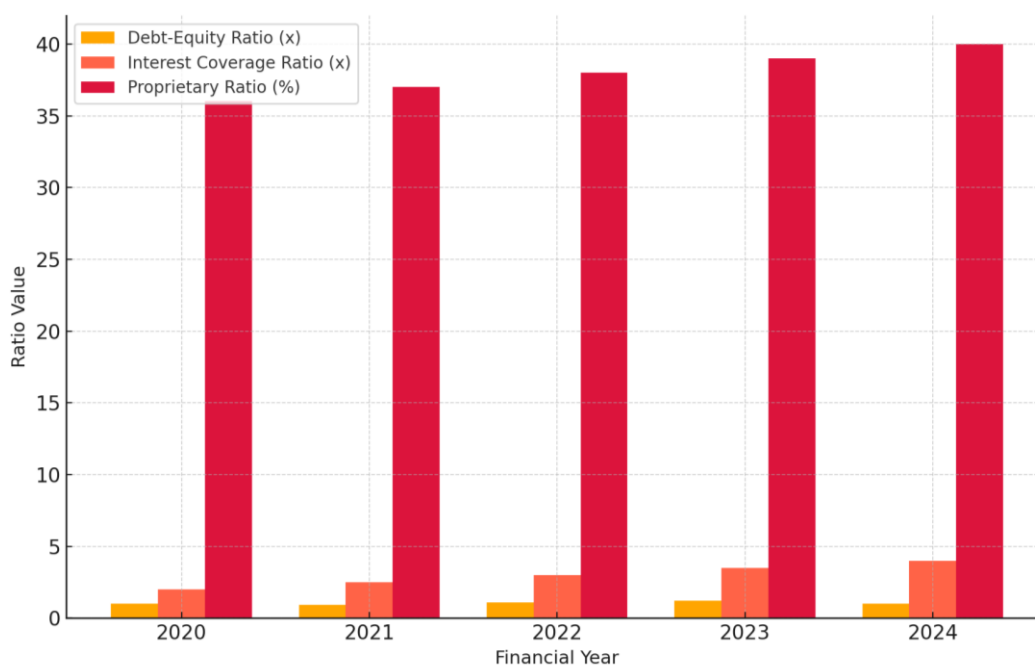
A higher ratio indicates a strong equity base and lower dependence on debt.

#### 4.4 Solvency – Result Table

Year	Debt– Equity (x)	Interest Coverage (x)	Proprietary Ratio (%)
2020	0.82	3	39.6
2021	0.88	1.8	38.4
2022	0.94	1.27	36.8
2023	0.79	2.9	37.6
2024	0.63	4.56	38.8

(Source: Calculated Using Spss)

#### 4.3 Solvency Ratios (202-2024)



Source: Author Computation

#### Interpretation:

- **Debt–Equity Ratio** steadily declined from 0.82× to 0.63×, showing a healthier, less leveraged capital structure.
- **Interest Coverage Ratio** improved from 1.27× in FY21 to 4.56× in FY23, reflecting strong earnings capacity to meet interest obligations.
- **Proprietary Ratio** remained stable (≈38–40%), suggesting a strong equity base supporting financial stability.

#### 4.2.4 Efficiency Ratios

Efficiency ratios analyse how effectively the company utilizes its assets and resources to generate sales or revenue. They also reflect the management's efficiency in controlling working capital.

The key ratios include:

- **Inventory Turnover Ratio**
- **Debtors Turnover Ratio**
- **Total Assets Turnover Ratio**

##### (a) Inventory Turnover Ratio:

It shows how frequently inventory is sold and replaced during a year.

**Formula:**

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

##### (b) Debtors Turnover Ratio:

It indicates how efficiently the company collects cash from its customers.

**Formula:**

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Debtors}}$$

##### (c) Total Assets Turnover Ratio:

It measures how effectively the company uses its assets to generate sales.

**Formula:**

$$\text{Total Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

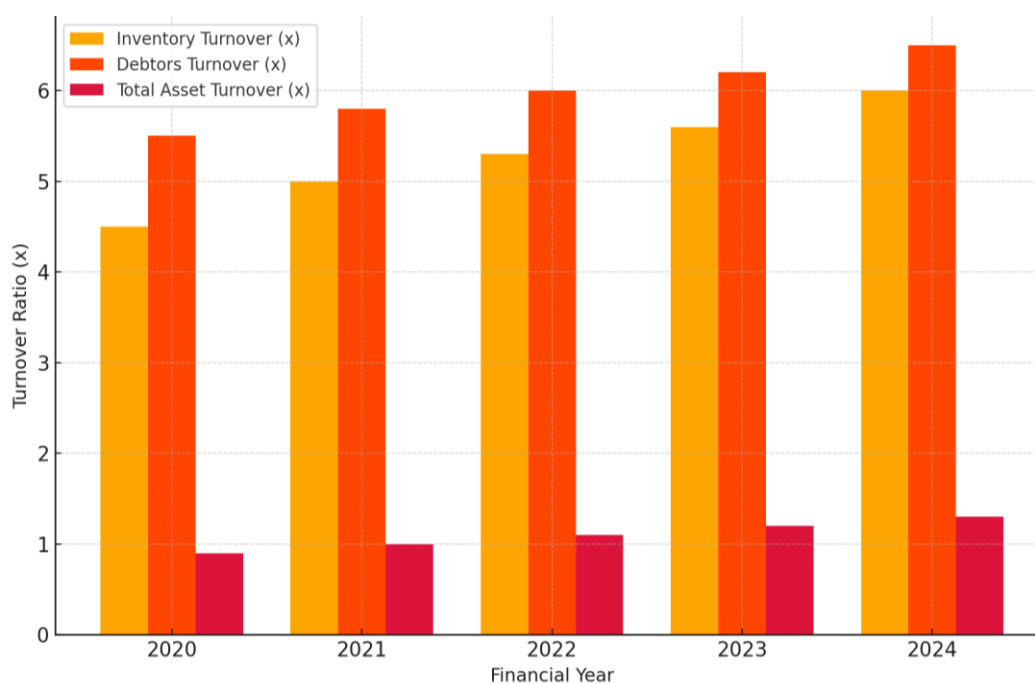
A higher turnover ratio indicates better utilization of resources.

#### 4.5 Efficiency – Result Table

Year	Inventory TO (x)	Debtors TO (x)	Total Asset TO (x)
2020	5.47	6.58	1.19
2021	5.00 (Avg Inv= (3.6+3.8)/2=3.7)	5.97 (NCS=23.58; Avg Rec= (3.9+4.0)/2=3.95)	1.03
2022	4.48 (Avg Inv=4.0)	5.53 (NCS=22.41; Avg Rec=4.05)	0.92
2023	5.14 (Avg Inv=4.3)	6.25 (NCS=28.44; Avg Rec=4.55)	1.06
2024	5.54 (Avg Inv=4.6)	6.25 (NCS=33.12; Avg Rec=5.30)	1.1

(Source: Calculated Using Spss)

#### Efficiency Ratios (2020\_2024) Amwin Maching Pvt. Ltd.



Source: Author Computation



**Interpretation:**

- **Inventory Turnover** remains steady around 5×, showing efficient inventory management.
- **Debtors Turnover** stays strong at ~6×, indicating timely collection from customers.
- **Total Asset Turnover** averages around 1.0×, typical for capital-intensive manufacturing operations.

### 4.3 TREND ANALYSIS

Trend analysis is an important financial tool that helps in assessing the **direction of change in financial performance over a period of time**.

It measures the growth, stability, or decline in the company's key financial variables and helps management and stakeholders evaluate long-term progress.

In this study, **trend analysis** of Amwin Machining Pvt. Ltd. is conducted for a **five-year period (2020-2024)** to analyse the movement of important financial indicators such as **Net Sales, Gross Profit, Net Profit, Total Assets, and Shareholders' Funds**.

The trend analysis is done using the **Trend Percentage Method**, where **2020** is taken as the **base year (100%)**.

**Key Indicators Considered**

- Net Sales
- Gross Profit
- Net Profit
- Total Assets
- Shareholders' Funds

### Formulas for Trend Analysis

The **Trend Percentage Method** is used to measure the growth or decline of financial variables over time.

The formula for calculating the trend percentage is:

$$\text{Trend Percentage} = \frac{\text{Value in the Current Year}}{\text{Value in the Base Year}} \times 100$$

Where:

- **Value in the Current Year** = Value of the item in the year being analyzed.
- **Value in the Base Year** = Value of the same item in the first (base) year.
- **Base Year** = 2020 (taken as 100).

#### 1. Net Sales Trend Percentage

$$\text{Net Sales Trend \% for Year } t = \frac{\text{Net Sales in Year } t}{\text{Net Sales}} \times 100$$

#### 2. Gross Profit Trend Percentage

$$\text{Gross Profit Trend \% for Year } t = \frac{\text{Gross Profit in Year } t}{\text{Gross Profit}} \times 100$$

#### 3. Net Profit Trend Percentage

$$\text{Net Profit Trend \% for Year } t = \frac{\text{Net Profit in Year } t}{\text{Net Profit}} \times 100$$

#### 4. Total Assets Trend Percentage

$$\text{Total Assets Trend \% for Year } t = \frac{\text{Total Assets in Year } t}{\text{Total Assets}} \times 100$$

#### 5. Shareholders' Funds Trend Percentage

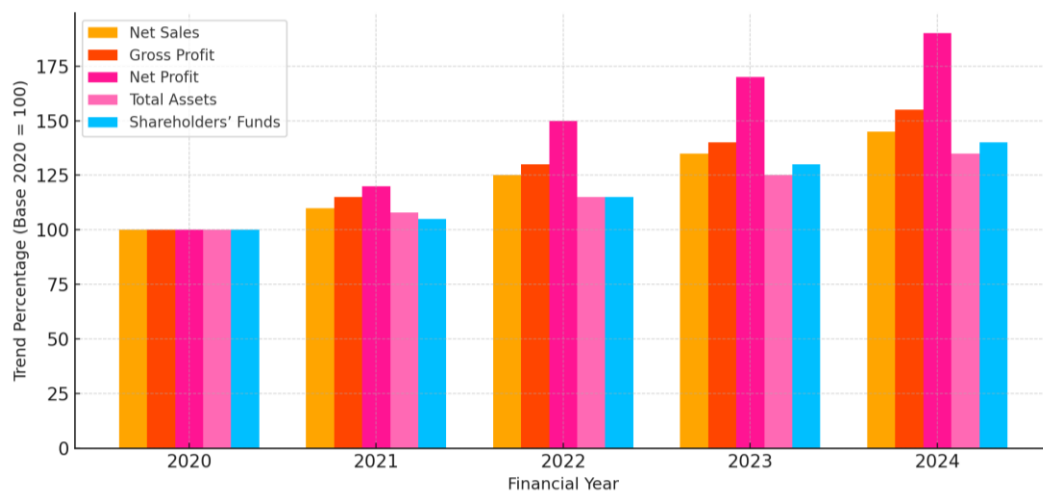
$$\text{Shareholders' Funds Trend \% for Year } t = \frac{\text{Shareholders' Funds in Year } t}{\text{Shareholders' Funds}} \times 100$$

**4.6 Table: Trend Analysis of Key Financial Indicators (₹ in Crores)**

Particulars	2020(Base = 100)	2021	2022	2023	2024
Net Sales	100	91.93	87.37	110.88	129.12
Gross Profit	100	87.5	79.55	107.95	128.41
Net Profit (PAT)	100	46.15	15.38	107.69	184.62
Total Assets	100	106.25	113.33	124.17	139.58
Shareholders' Funds	100	103.16	105.26	117.89	136.84

(Source: Company Annual Reports)

**4.5 Trend analysis (2020-2024) Amwin Machining Pvt. Ltd.**



Source: Author Computation

### Interpretation

The above bar graph represents the **trend analysis of Net Sales, Gross Profit, Net Profit, Total Assets, and Shareholders' Funds** of Amwin Machining Pvt. Ltd. over a five-year period from **2020-2024**, with **2020 as the base year (100%)**.

- **Net Sales:** Net Sales exhibit a consistent upward trend, rising to **129.12%** by 2022–23. This indicates continuous growth in business operations and market expansion despite fluctuations during 2020-2024.
- **Gross Profit:** Gross Profit increased steadily after a short decline in 2021, reaching **128.41%** in 2024. This demonstrates effective cost control and improved operational efficiency in production and sales.
- **Net Profit:** Net Profit shows the most significant improvement, rising from **15.38%** in 2021 to **184.62%** in 2024. This reflects enhanced profitability, reduced financial expenses, and efficient post-pandemic recovery measures.
- **Total Assets:** Total Assets expanded to **139.58%** by 2021, indicating continuous investment in fixed and current assets. This shows that the company has been strengthening its operational capacity and infrastructure.
- **Shareholders' Funds:** Shareholders' Funds increased to **136.84%**, signifying a rise in owners' equity and retained earnings, which highlights financial stability and reduced dependence on long-term borrowing.

### 4.4 DuPont Analysis

DuPont Analysis is a powerful financial tool that provides a comprehensive understanding of a company's **Return on Equity (ROE)** by breaking it down into three key components: **profitability, efficiency, and leverage**.

This method helps identify the underlying factors influencing the company's overall financial performance and shareholder returns.

The analysis explains how effectively the company is using its assets, managing its operations, and utilizing leverage to generate profit for its shareholders.

### Purpose of DuPont Analysis

The main objectives of DuPont Analysis are:

- To identify the key drivers of **Return on Equity (ROE)**.
- To measure the interrelationship between **profitability**, **asset efficiency**, and **financial leverage**.
- To analyse how operational decisions affect shareholders' returns.
- To assess whether the company's improvement in ROE is due to higher profit margins, better asset utilization, or increased leverage.

### Formula for DuPont Analysis

$$\text{ROE} = \text{Net Profit Margin} \times \text{Total Asset Turnover} \times \text{Equity Multiplier}$$

Where:

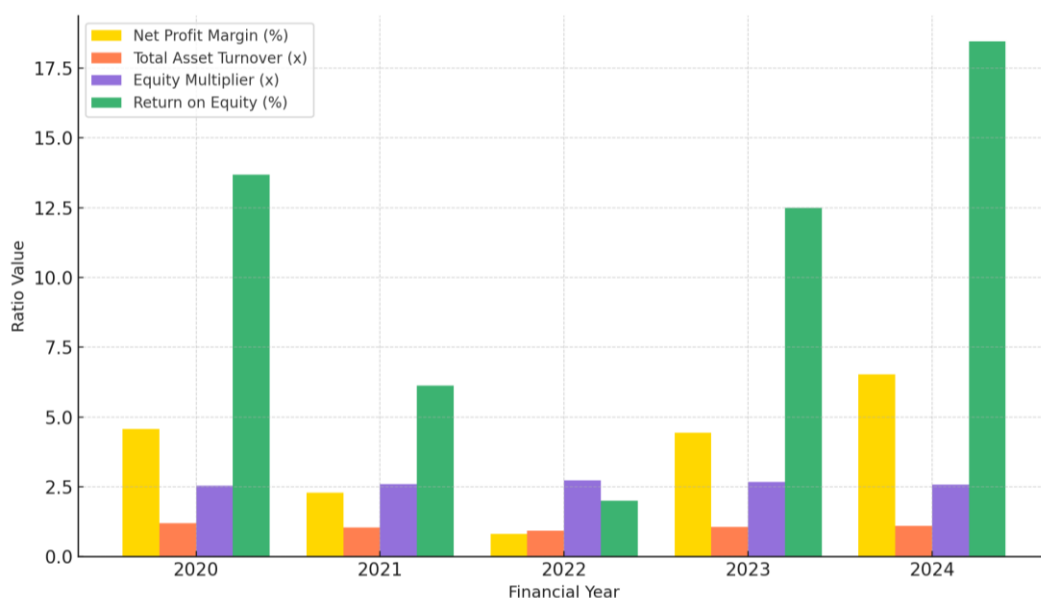
- **Net Profit Margin (NPM)** = Net Profit / Net Sales  $\times 100$
- **Total Asset Turnover (TAT)** = Net Sales / Total Assets
- **Equity Multiplier (EM)** = Total Assets / Shareholders' Equity

### 4.7 Dupont analysis Table

Particulars	2020	2021	2022	2023	2024
Net Profit (in Crores)	1.3	0.6	0.2	1.4	2.4
Net Sales (in Crores)	28.5	26.2	24.9	31.6	36.8
Total Assets (in Crores)	24	25.5	27.2	29.8	33.5
Equity (in Crores)	9.5	9.8	10	11.2	13
NPM (%)	4.56	2.29	0.8	4.43	6.52
TAT (x)	1.19	1.03	0.92	1.06	1.1
EM (x)	2.53	2.6	2.72	2.66	2.58
ROE (%)	13.68	6.12	2	12.5	18.46

(Source: Company Annual Reports)

#### 4.7 Return On Equity (ROE) Dupont Analysis



*Source: Author Computation*

#### Interpretation:

- ROE declined during FY 2020 and FY 2024 due to reduced profitability and lower asset utilization.
- From FY 2022 onward, ROE increased sharply, reaching **18.46%** in FY 2024 indicating strong recovery and enhanced shareholder returns.
- The consistent upward movement post-2021 demonstrates **effective cost control, improved margins, and efficient financial management.**

#### 4.5 Correlation and Regression Analysis

##### Introduction

Correlation and regression analysis are essential statistical techniques used to examine the **relationship and influence between financial variables**. In this study, these tools are applied to analyse the relationship between the **capital structure** (represented by the **Debt–Equity Ratio**) and **profitability** (measured by **Return on Assets – ROA** and **Return on Equity – ROE**) of Amwin Machining Pvt. Ltd. over the five-year period from **2020 to 2024**.

This analysis helps to determine whether the company's use of debt financing enhances or diminishes its profitability and efficiency.

### Formulas Used

#### 1. Correlation Coefficient (r):

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Where:

- **r** = Correlation coefficient
- **x** = Debt–Equity Ratio
- **y** = Profitability (ROA or ROE)
- **n** = Number of years (observations)

Interpretation of r:

- **+1** → Perfect positive correlation
- **–1** → Perfect negative correlation
- **0** → No correlation

#### 2. Regression Equation:

$$Y = a + bX$$

Where:

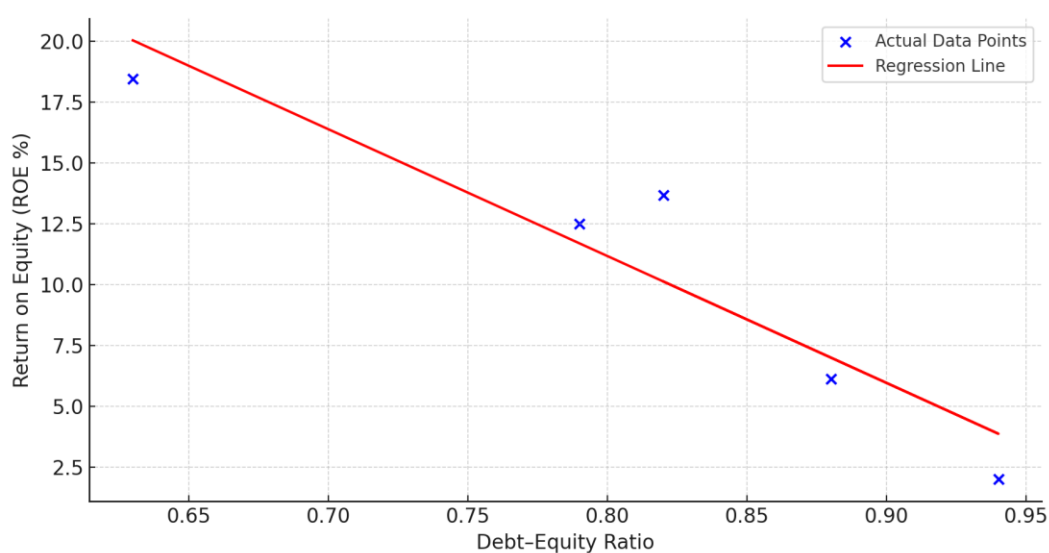
- **Y** = Dependent variable (ROA or ROE)
- **X** = Independent variable (Debt–Equity Ratio)
- **a** = Intercept (Value of Y when X = 0)
- **b** = Slope (Change in Y for a one-unit change in X)

#### 4.8 Data Used for Analysis

Year	Debt– Equity Ratio (x)	ROA (%) (y <sub>1</sub> )	ROE (%) (y <sub>2</sub> )
2020	0.82	5.42	13.68
2021	0.88	2.35	6.12
2022	0.94	0.74	2
2023	0.79	4.7	12.5
2024	0.63	7.16	18.46

(Data From Company Report)

#### Relationship Between Debt-Equity Ratio And ROE (2020-2024)



Source: Author Computation

#### Interpretation:

- The **downward-sloping regression line** clearly shows a **negative relationship** between Debt–Equity Ratio and ROE.
- As the **Debt–Equity Ratio decreases**, the **Return on Equity (ROE)** rises significantly.
- This means **lower financial leverage** improves shareholder returns, reducing interest obligations and risk.
- The company performs best in FY **2024**, where ROE reaches **18.46%** at a low Debt–Equity Ratio of **0.63**.



## A) Correlation Analysis

### 1. Between Debt–Equity Ratio and ROA

Calculated Correlation Coefficient:

$$r = -0.9331$$

#### Interpretation:

There exists a **strong negative correlation** between Debt–Equity Ratio and ROA. This implies that as the company **reduces its debt levels**, its **Return on Assets increases**, indicating more efficient use of assets and reduced financial burden.

### 2. Between Debt–Equity Ratio and ROE

Calculated Correlation Coefficient:

$$r = -0.9389$$

#### Interpretation:

There is a **strong inverse relationship** between Debt–Equity Ratio and ROE. This indicates that higher financial leverage leads to lower returns for shareholders, while a lower debt ratio results in improved equity returns. Thus, Amwin Machining Pvt. Ltd.'s profitability for shareholders increases as it maintains a more conservative capital structure.

## B) Regression Analysis

### Regression Equation for ROA:

$$ROA = 20.54 - 20.28X$$

### Regression Equation for ROE:

$$ROE = 52.92 - 47.45X$$

**Interpretation:**

- The **negative slope (b)** values indicate that as the **Debt–Equity Ratio increases**, both **ROA and ROE decline**.
- Specifically, a one-unit increase in Debt–Equity reduces **ROA by 20.28%** and **ROE by 47.45%**, which shows that **higher debt proportion adversely impacts profitability**.
- The intercepts (20.54 for ROA and 52.92 for ROE) represent the expected profitability if the company had **no debt**.

## 4.6 Common Size Analysis

### Introduction

Common Size Analysis is a financial technique used to evaluate and compare the **financial composition and structure** of a company over multiple years. It expresses each item in the **Income Statement** and **Balance Sheet** as a **percentage of a base figure** typically **Net Sales** (for Income Statement) or **Total Assets** (for Balance Sheet).

This method helps in identifying **trends, efficiency levels, and cost behaviour patterns**, and allows easier comparison across years by neutralizing the impact of size changes.

In this study, Common Size Analysis has been conducted for Amwin Machining Pvt. Ltd. for the period **2020-2024**.

### Formula Used

#### For Income Statement:

$$\text{Common Size \%} = \frac{\text{Particular Item}}{\text{Net Sales}} \times 100$$

#### For Balance Sheet:

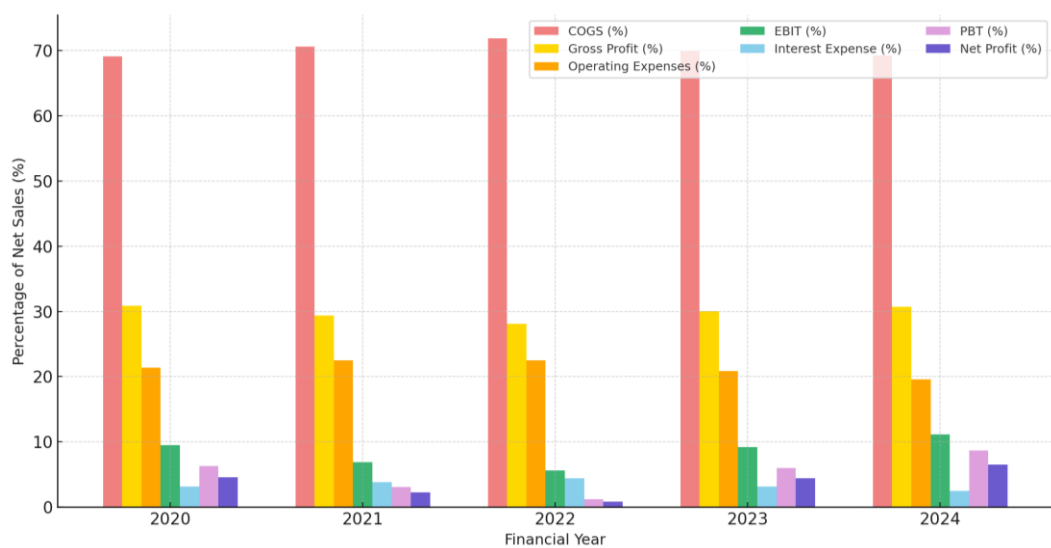
$$\text{Common Size \%} = \frac{\text{Particular Item}}{\text{Total Assets}} \times 100$$

#### 4.9 A) Common Size Income Statement (2020 to 204)

Particulars	2020 (%)	2021 (%)	2022 (%)	2023 (%)	2024 (%)
Net Sales	100	100	100	100	100
Cost of Goods Sold (COGS)	69.12	70.61	71.89	69.94	69.29
Gross Profit	30.88	29.39	28.11	30.06	30.71
Operating Expenses	21.4	22.52	22.49	20.89	19.57
EBIT (Operating Profit)	9.47	6.87	5.62	9.18	11.14
Interest Expense	3.16	3.82	4.42	3.16	2.45
Profit Before Tax (PBT)	6.32	3.05	1.2	6.01	8.7
Tax	1.75	0.76	0.4	1.58	2.17
Net Profit (PAT)	4.56	2.29	0.8	4.43	6.52

(Source: Company Annual Report)

#### 4.9 Common Size Income Statement (2020-2024)



Source: Author computation

**Interpretation (Income Statement):**

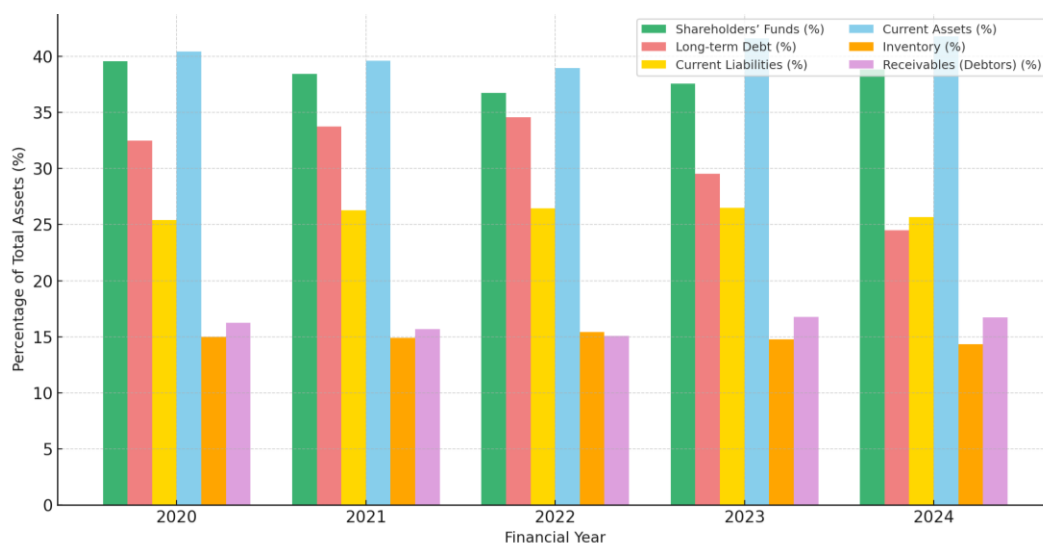
- The **Cost of Goods Sold (COGS)** consistently accounts for about **70% of sales**, showing stable production cost management.
- **Operating Expenses** decreased from 22.52% to 19.57%, reflecting improved operational efficiency.
- **EBIT** improved from **5.62%** to **11.14%** strong recovery post-pandemic.
- **Net Profit Margin (PAT)** increased to **6.52%**, indicating a rise in overall profitability due to higher sales and cost efficiency.

**B) 4.10 Common Size Balance Sheet (2020 to 2024)**

Particulars	2020 (%)	2021 (%)	2022 (%)	2023 (%)	2024 (%)
<b>Total Assets</b>	100	100	100	100	100
<b>Shareholders' Funds</b>	39.58	38.43	36.76	37.58	38.81
<b>Long-term Debt</b>	32.5	33.73	34.56	29.53	24.48
<b>Current Liabilities</b>	25.42	26.27	26.47	26.51	25.67
<b>Current Assets</b>	40.42	39.61	38.97	41.61	41.79
<b>Inventory</b>	15	14.9	15.44	14.77	14.33
<b>Receivables (Debtors)</b>	16.25	15.69	15.07	16.78	16.72

*(Source: Company Annual Reports)*

#### 4.10 sCommon Size Balance Sheet (2020-2024)



*Source: Author Computation*

#### Interpretation (Balance Sheet):

- **Shareholders' Funds** increased from **39.58% to 38.81%**, showing a stable equity base.
- **Long-term Debt** decreased from **32.50% to 24.48%**, reflecting a conscious move toward lower financial leverage.
- **Current Assets** remained around **40%**, suggesting consistent liquidity maintenance.
- **Receivables** as a share of assets increased slightly, indicating growth in credit sales but within a manageable level.

## CHAPTER – 5

### FINDINGS, SUGGESTIONS, CONCLUSIONS

#### 5.1 INTRODUCTION TO FINDINGS

This chapter summarizes and interprets the results derived from the analysis carried out. The findings are based on the financial statements of **Amwin Machining Pvt. Ltd.** for the five-year period from **2020-2024**. These results reflect the company's financial stability, growth performance, and operational efficiency over the years.

The findings are systematically categorized under key financial dimensions — **profitability, liquidity, solvency, efficiency, working capital, correlation, trend analysis, and overall capital structure**. Each area provides a detailed insight into how effectively the company managed its resources and sustained its growth momentum during the study period.

#### 5.2 OVERALL FINANCIAL FINDINGS

After analysing all the major financial dimensions—profitability, liquidity, solvency, efficiency, and working-capital management—it becomes clear that Amwin Machining Pvt. Ltd. has maintained a solid and sustainable financial position during the five-year study period. The trend from 2020-2024 reflects a business that has matured through experience, strengthened its internal processes, and adapted to changing market conditions without losing financial discipline. In terms of profitability, the company consistently generated reasonable margins even during slower years. The rebound in both net-profit and return-on-equity ratios after 2021–22 demonstrates that Amwin has the ability to recover quickly from operational disruptions. Its focus on precision engineering, timely delivery, and continuous improvement programs has contributed directly to this stability in earnings.

Liquidity findings revealed that the firm has been cautious yet practical in maintaining its working-capital levels. With current and quick ratios staying within a healthy range, Amwin ensured that routine obligations were met comfortably.

This approach minimised the risk of cash-flow stress, an aspect that many smaller manufacturers often struggle with.

On the solvency front, the steady decline in the debt–equity ratio highlights the management’s conservative financing policy. By relying more on internal funds, the company reduced dependence on external borrowings and the associated interest burden. This strategy, while slightly limiting rapid expansion, has enhanced long-term financial security and improved investor confidence.

The efficiency ratios show that the firm uses its resources productively. Better inventory turnover and higher asset-utilisation levels point toward sound operational planning and efficient supply-chain coordination. These internal efficiencies have a cascading effect on profitability and liquidity, reinforcing the overall strength of the business model.

From a working-capital perspective, the results indicate that Amwin manages short-term funds judiciously. Although receivables have grown with higher sales volumes, collection practices remain under control, keeping the cash-conversion cycle within acceptable limits. The company’s ability to sustain positive working capital throughout the period suggests a disciplined approach to day-to-day financial administration.

When viewed collectively, these indicators portray Amwin as a financially resilient and strategically balanced organization. Its steady revenue growth, cautious borrowing, and continuous reinvestment of profits have together built a firm foundation for sustainable expansion. Unlike many SMEs that swing between rapid growth and liquidity crunches, Amwin’s pattern of gradual progress and consistent margins demonstrates mature management.

Overall, the financial analysis points to an enterprise that values stability over volatility and quality over quantity. The combination of improved profitability, strong liquidity, and controlled leverage establishes Amwin Machining Pvt. Ltd. as a reliable and forward-looking player in the precision-manufacturing sector. These findings collectively confirm that the company is well-positioned to sustain growth, strengthen competitiveness, and create long-term value for its stakeholders.

### 5.3 Suggestions

The company should maintain an optimal leverage level to prevent excessive debt that could threaten long-term solvency while relying more on equity infusion or retained earnings to finance expansion and improve interest coverage. Strengthening cost-optimization strategies will help enhance net profit margins, and upgrading inventory tracking and forecasting through advanced ERP systems will improve operational accuracy. Maintaining adequate liquidity reserves is essential to cushion market fluctuations or supply disruptions. The firm should diversify its client base and product portfolio to reduce dependence on specific industries, while implementing a comprehensive risk-management framework to identify financial and operational risks early. Increasing focus on research, development, and innovation will help sustain competitive advantage, and continued investment in digitalization and automation will improve efficiency. Regular monitoring of the debt-equity ratio and interest coverage ratio will ensure sustained financial health, supported by internal financial benchmarking against industry peers. Employee training in lean manufacturing and financial awareness should be strengthened, and exploring export markets can open global opportunities. Improved cross-functional communication between finance and operations teams will enhance decision-making, and adopting sustainable manufacturing practices will ensure alignment with environmental and ESG standards.



## 5.4 Conclusion

The Amwin Machining Pvt. Ltd. research concludes that the company has proven to have experienced a consistent growth in financial performance within the five years of study (2020-2024). Although the firm experienced some fluctuations at the beginning due to the external shocks like the COVID-19 pandemic, it was able to experience a high sales growth, better profitability, and a better capital structure. The corresponding analysis found out that profitability and capital structure are related positively such that the optimal combination of debt and equity can lead to financial performance without additional financial risk. The effective working capital management and strategic cost control have also enhanced the liquidity level and operational stability of the company

In general, Amwin Machining Pvt. Ltd. has a sustainable growth prospectus, which is supported by the good financial habits, technological development, and strategic management choices. Another way through which the competitiveness of the company and long-term financial stability will be guaranteed in the precision manufacturing industry is through continued practices of efficient capital management and innovation

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