MANGALORE UNIVERSITY

SRI SHARADA COLLAGE.BASRUR

Kundapura, udupi-576211

Internship Report

on

"Comprehensive Study of Mishra Dhatu Nigam Ltd"



2023-24

Supervised by;

Sandeepa k

Department Of Commerce

Sri Sharada Collage, Basrur

Sumitted by;

Sukesh, Rakshith, Vijay, Shamanth

REG no; U05RS21C0067, U05RS21C0056, U05RS21C0070, U05RS21C0053

BACHELOR OF COMMERCE

SRI SHARADA COLLAGE,BASRUR

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PERMISSION LETTER

This is to certify that Sukesh, Rakshith, Vijay, Shamanth of III B, com
Bearing U05RS21C0067, U05RS21C0056, U05RS21C0070, U05RS21C0053.

Has been allotted the title of internship project work regarding Mishra dhatu nigam ltd (MIDHANI) in completion of the B,com programme during the academic year 2023-24.

Principal name&signature

collage seal

HOD name&signature

INTRODUCTION OF MIDHANI LTD;

Introduction;

Mishra Dhatu Nigam Limited (MIDHANI) was established in the year 1973 as a Government of India Enterprise under administrative control of Ministry of Defence. The production unit of MIDHANI, located at Kanchanbagh, Hyderabad, was commissioned in the year 1982. MIDHANI was set up with a view to achieve self-reliance in production and supply of various super alloys, special steels, soft magnetic alloys to Defence and other Strategic Sectors such as Energy, Space and Aeronautical applications. The guiding factors for setting up of MIDHANI were the demand for Defence oriented technologies, which come under the national priorities. The materials manufactured by MIDHANI are basically import substitutes and their non-availability would have affected various strategic programs of the country.

With 49 years of glorious past MIDHANI is one of the leading manufacturers of special steels, Superalloys, and the only manufacturer of Titanium alloys in India. Our state-of-the-art facilities are capable of catering to complex and dynamic requirements of critical materials.

Manufacturing Facilities:

Hyderabad: The manufacturing facilities at MIDHANI plant in Hyderabad include Primary and Secondary melting furnaces such as Electric Arc Furnace with Ladle Refining Furnace, Vacuum Degassing/Vacuum Oxygen Decarburisation, Vacuum Induction Melting Furnace, Vacuum Induction Refining Furnace, Vacuum Arc Re-Melting Furnace, Electro Slag Re-Melting Furnace and Electron Beam Melting Furnace. Subsequent operations are carried out at 6000T/1500T Forge Presses, Ring Rolling Mill, Hot Rolling and Cold Rolling Mills, Bar and Wire Drawing Mills etc. based on the output, form and sizes required. The auxiliary supporting services like conditioning, heat treatment, machining, pickling, quality control also forms part of MIDHANI's manufacturing processes.

MIDHANI has diversified and has set up several facilities such as Wide Plate Mill (WPM)- a state of art facility, capable of rolling plate with 3 Meter width to cater to the needs of Strategic Sectors and Springs Project to manufacture Springs indigenously with a capacity of 60,000 Springs per year which will also facilitate MIDHANI's presence in Railway sector. With these additions, MIDHANI is poised to witness growth and expand its global reach.

Rohtak:: Armor facility has been set up at Rohtak, Haryana to cater to the demand for high end Armour products. The new plant in Rohtak is spread across 10 acres of land and is equipped with Fibre cutting machine, Hydraulic ballistic press, CNT spray machine, water jet cutting technology, plasma cutting technology, autoclaves, forming machines and composite moulding presses to undertake a variety of manufacturing processes to cater to the increase in demand for Body Armour, Vehicle Armouring, Bullet Proof Morcha, Bullet Resistant Jackets etc.

Joint Venture Company: 'Utkarsha Aluminium Dhatu Nigam Limited' (UADNL) a (50:50) joint venture of MIDHANI and National Aluminium Co. Ltd, (NALCO) was incorporated to set up High end Aluminum Alloy Production plant at Nellore, Andhra Pradesh. To establish green field project of Aluminum Alloy flat rolled product facility, land of 110 Acres has been procured in Nellore. Corporate Office of UADNL has been set-up at Hyderabad and Environmental Clearance and Consent for Establishment has also been obtained. A technical consultant has been appointed for the project and the technical specification for technology Know-how and equipment supply is under progress.

With advancement in technology within India and abroad, materials such as Super alloys, Titanium alloys and Special steels, which are the core products of MIDHANI continue to witness incremental demands thereby resulting in increased production over the years.

Mishra Dhatu Nigam Limited





Company Public Sector

type <u>Undertaking</u>

<u>Traded as</u> <u>BSE</u>: <u>541195</u>

NSE: MIDHANI

Industry <u>Metallurgy</u>

Founded 1973; 51 years ago

Headquarters <u>Hyderabad</u>

,

<u>India</u>

Area served Worldwide

Key people Sanjay Kumar Jha

(Chairman & MD)

Products	Superalloys
	<u>Titanium alloys;</u>
	Specialized <u>Steels</u>
	High Reliability Electrical & Electronic Alloys
	Soft Magnetic alloys
	Magnesium Alloys
	<u>Titanium</u> Tubes
	Columbium Alloy
	Biomedical Implants
	Armour Products
Services	Testing & Evaluation
	Metallurgical Consultancy Services
Revenue	▲₹749.31 crore (US\$94 million) (2020)[1]

Operating ▲₹208.01

income crore (US\$26 million)

 $(2020)^{[1]}$

Net income ▲₹159.73

crore (US\$20 million)

 $(2020)^{11}$

crore (US\$230 million)

 $(2019)^{[2]}$

Total equity ▲₹187.34

crore (US\$23 million)

 $(2020)^{11}$

Owner Government Of

<u>India</u> (74.00%)

Number of 791 (March 2019)^[2]

employees

Website http://midhani-india.in/

DR SANJAY KUMAR JHA

Chairman



Dr Sanjay Kumar Jha, Chairman & Managing Director (MIDHANI) inaugurated eoffice system to facilitate a simplified, responsive and transparent working of all departments in MIDHANI as part of "Atma Nirbhar Bharat" Abhiyan. Official from Vigilance Department were also graced the event.

eoffice system allows quick disposal of files electronically resulting in reduced paperwork and significant time saving. Also, the system is expected to enhance transparency & accountability within the organisation. The system will help in collaboration & effective knowledge management at MIDHANI.

In view of COVID-19 restrictions, eoffice would also help in ensuring uninterrupted workflow amongst various departments by avoiding physical contact and reducing the chances of spread. Also, the system would help in providing a safe working environment for MIDHANI employees.











OBJECTIVES OF MIDHANI;

- 1. **Self-Reliance in Strategic Materials**: MIDHANI aims to contribute to India's self-reliance in critical materials required for defense and strategic applications. By developing indigenous capabilities in alloy production, MIDHANI reduces dependence on imports and strengthens national security.
- 2. **Quality Manufacturing**: MIDHANI is committed to producing high-quality metals, alloys, and components that meet stringent specifications and standards. The objective is to ensure reliability, performance, and safety in applications ranging from defense equipment to space launch vehicles.
- 3. **Innovation and Technology Development**: MIDHANI focuses on continuous innovation and technology development in metallurgy and materials science. The objective is to stay at the forefront of technological advancements, improve product performance, and introduce new materials to meet evolving market demands.
- 4. **Customer Satisfaction**: MIDHANI prioritizes customer satisfaction by understanding customer requirements, delivering products on time, and providing excellent after-sales support. The objective is to build long-term relationships with customers and exceed their expectations in terms of quality, service, and value.
- 5. **Research and Development**: MIDHANI invests in research and development initiatives to develop new alloys, improve manufacturing processes, and address emerging challenges in materials technology. The objective is to enhance the company's technological capabilities and expand its product portfolio.

- 6. **Export Promotion**: MIDHANI aims to expand its presence in international markets by promoting exports of its specialized materials and components. The objective is to diversify revenue streams, access new customers, and showcase India's capabilities in advanced metallurgy on the global stage.
- 7. **Corporate Social Responsibility**: MIDHANI is committed to fulfilling its corporate social responsibility (CSR) by contributing to community development, environmental sustainability, and employee welfare. The objective is to create a positive impact on society while conducting business ethically and responsibly.
- 8. **Strategic Partnerships and Collaborations**: MIDHANI seeks to establish strategic partnerships and collaborations with government agencies, research institutions, and industry partners. The objective is to leverage complementary strengths, share resources, and facilitate technology transfer for mutual benefit.
- 9. **Capacity Expansion**: MIDHANI may aim to expand its manufacturing capacity to meet growing demand for its products, both domestically and internationally. This objective involves investing in infrastructure, technology upgrades, and workforce development to increase production capabilities and scale operations effectively.
- 10. **Cost Optimization**: MIDHANI may seek to optimize its operational costs while maintaining product quality and performance. This objective involves implementing efficiency measures, streamlining processes, and leveraging economies of scale to improve cost competitiveness and profitability.

- 11. **Risk Mitigation**: MIDHANI may focus on mitigating risks associated with its operations, supply chain, market dynamics, and regulatory environment. This objective involves identifying potential risks, developing risk management strategies, and implementing contingency plans to safeguard against adverse events and disruptions.
- 12. **Sustainability Initiatives**: MIDHANI may prioritize sustainability initiatives aimed at reducing environmental impact, conserving resources, and promoting sustainable practices throughout its value chain. This objective involves implementing eco-friendly technologies, waste reduction measures, and green manufacturing practices to minimize environmental footprint and enhance corporate sustainability.
- 13. **Market Expansion**: MIDHANI may aim to expand its presence in existing markets and explore opportunities in new geographic regions or industry sectors. This objective involves market research, strategic planning, and market entry strategies to penetrate new markets, diversify customer base, and capture market share effectively.
- 14. **Product Development**: MIDHANI may focus on continuous product development to address evolving customer needs, technological advancements, and market trends. This objective involves investing in research and development, innovation, and product differentiation to introduce new products, improve existing ones, and stay ahead of competitors.
- 15. **Compliance and Governance**: MIDHANI may prioritize compliance with regulatory requirements, industry standards, and corporate governance principles. This objective involves ensuring adherence to legal and regulatory frameworks, maintaining transparency, accountability, and ethical conduct in business operations, and upholding the company's reputation and credibility.

- 16. **Employee Engagement and Development**: MIDHANI may aim to foster a culture of employee engagement, empowerment, and continuous learning. This objective involves providing opportunities for skill development, career advancement, and employee well-being to attract, retain, and motivate talent, thereby enhancing organizational performance and resilience.
- 17. **Strategic Asset Management**: MIDHANI may focus on optimizing its asset utilization and lifecycle management to maximize return on investment and asset efficiency. This objective involves asset tracking, maintenance optimization, and capital allocation strategies to ensure optimal use of resources and long-term sustainability.
- 18. **Continuous Improvement**: MIDHANI may prioritize a culture of continuous improvement across all aspects of its operations. This objective involves regularly reviewing processes, identifying inefficiencies, and implementing measures to enhance productivity, quality, and customer satisfaction.
- 19. **Supply Chain Resilience**: Given the importance of a reliable supply chain, MIDHANI may aim to enhance its supply chain resilience. This objective involves diversifying supplier base, implementing robust risk management strategies, and leveraging technology to improve visibility and responsiveness within the supply chain.
- 20. **International Standardization**: MIDHANI may strive to achieve international standardization and certifications for its products and processes. This objective involves aligning with globally recognized standards such as ISO certifications, AS9100 for aerospace, and NORSOK for oil and gas, to enhance credibility and market acceptance.
- 21. **Inclusion and Diversity**: MIDHANI may set objectives to foster an inclusive and diverse workplace environment. This objective involves promoting diversity in hiring

practices, providing equal opportunities for all employees, and creating a culture of respect, tolerance, and inclusivity within the organization.

- 22. **Community Engagement**: MIDHANI may aim to deepen its engagement with local communities and stakeholders. This objective involves supporting community development initiatives, investing in social welfare programs, and fostering positive relationships with neighboring communities to promote social responsibility and goodwill.
- 23. **Technological Leadership**: MIDHANI may strive to maintain technological leadership in advanced materials manufacturing. This objective involves staying abreast of emerging technologies, investing in research and development, and collaborating with academia and industry partners to drive innovation and stay ahead of competitors.
- 24. **Brand Building and Reputation Management**: MIDHANI may focus on building a strong brand image and managing its reputation effectively. This objective involves strategic communication, stakeholder engagement, and crisis preparedness to uphold the company's reputation and brand equity in the market.
- 25. **Long-Term Sustainability**: MIDHANI may prioritize long-term sustainability in its business practices. This objective involves balancing economic growth with environmental conservation and social responsibility, ensuring that business decisions consider the triple bottom line of people, planet, and profit for sustainable development.
- 26. **Strategic Partnerships and Collaborations**: MIDHANI may aim to establish strategic partnerships and collaborations with academic institutions, research organizations, and industry players. This objective involves fostering collaborative research, technology

transfer, and joint innovation initiatives to enhance its competitive advantage and drive mutual growth.

- 27. **Economic Development**: MIDHANI may contribute to economic development by promoting local sourcing, job creation, and skill development in the regions where it operates. This objective involves supporting small and medium-sized enterprises (SMEs), engaging in local procurement, and investing in vocational training programs to empower local communities and stimulate economic growth.
- 28. **Digital Transformation**: MIDHANI may prioritize digital transformation initiatives to digitize processes, optimize operations, and enhance agility and responsiveness. This objective involves leveraging technologies such as IoT, AI, data analytics, and automation to improve efficiency, reduce costs, and accelerate decision-making across the organization.
- 29. **Customer-Centric Innovation**: MIDHANI may focus on customer-centric innovation to address evolving customer needs and preferences. This objective involves actively soliciting feedback from customers, co-creating solutions, and customizing products and services to deliver greater value and differentiate MIDHANI in the market.
- 30. **Risk Management and Business Continuity**: MIDHANI may strengthen its risk management and business continuity practices to mitigate potential threats and disruptions. This objective involves conducting comprehensive risk assessments, implementing robust contingency plans, and building resilience to external shocks, ensuring continuity of operations and safeguarding stakeholder interests.
- 31. **Corporate Governance and Ethics**: MIDHANI may uphold the highest standards of corporate governance and ethics to build trust and credibility among stakeholders. This objective involves promoting transparency, integrity, and accountability in decision-making,

complying with regulatory requirements, and adhering to ethical business practices in all interactions.

- 32. **Employee Well-being and Engagement**: MIDHANI may prioritize employee well-being and engagement to create a positive work culture and foster employee satisfaction and loyalty. This objective involves investing in employee wellness programs, professional development opportunities, and recognition schemes to attract, retain, and motivate top talent.
- 33. **Climate Action and Environmental Stewardship**: MIDHANI may commit to climate action and environmental stewardship by reducing its carbon footprint, conserving natural resources, and adopting eco-friendly practices throughout its operations. This objective involves setting ambitious sustainability goals, monitoring environmental performance, and implementing initiatives to mitigate climate change and preserve ecosystems.
- 34. **Responsible Supply Chain Management**: MIDHANI may ensure responsible supply chain management by promoting ethical sourcing, fair labor practices, and responsible minerals sourcing throughout its supply chain. This objective involves conducting due diligence, engaging with suppliers, and promoting sustainability standards to uphold human rights and environmental protection.

IMPORTANCE/SCOPE OF MISHRA DHATU LIMITED -

The importance and scope of Mishra Dhatu Nigam Limited (MIDHANI) lie in its pivotal role in the development and production of specialized metals and alloys for strategic sectors like defense, aerospace, nuclear energy, and space exploration. MIDHANI's expertise encompasses the entire spectrum of metal production, from research and development to manufacturing and testing. With its advanced technologies and skilled workforce, MIDHANI plays a crucial role in ensuring the self-reliance and security of India's critical industries, contributing significantly to the nation's technological advancement and defense capabilities.

Mishra Dhatu Nigam Limited (MIDHANI) is a government-owned company under the administrative control of the Ministry of Defence, Government of India. Established in 1973, MIDHANI operates from its headquarters in Hyderabad, Telangana. The company specializes in the manufacture of high-performance alloys, special steels, superalloys, titanium alloys, and other advanced materials required for various strategic applications.

The scope of MIDHANI's operations extends beyond conventional metallurgical products. It is involved in the development and production of materials for a wide range of critical sectors, including aerospace, defense, nuclear power, and space exploration. MIDHANI's products find applications in manufacturing components for fighter aircraft, missiles, launch vehicles, nuclear reactors, and other high-technology systems.

MIDHANI's capabilities include research and development, alloy design, melting and casting, hot and cold working, heat treatment, surface engineering, and testing and evaluation. The company has state-of-the-art facilities and laboratories equipped with advanced equipment for materials characterization and testing.

In addition to catering to the domestic market, MIDHANI also exports its products to various countries, thereby contributing to India's presence in the global aerospace and defense sectors. The company's commitment to quality, innovation, and customer satisfaction has earned it recognition as a reliable supplier of critical materials for high-performance applications.

Certainly! Here's some additional information on MIDHANI:

- 1. **Research and Development (R&D)**: MIDHANI has a dedicated R&D center that focuses on developing new alloys, improving existing materials, and exploring advanced manufacturing techniques. The company collaborates with academic institutions, research organizations, and industry partners to stay at the forefront of materials science and technology.
- 2. **Product Range**: MIDHANI produces a wide range of specialized materials, including nickel-based superalloys, cobalt-based alloys, titanium alloys, high-strength steels, and aluminum alloys. These materials are engineered to withstand extreme conditions such as high temperatures, corrosive environments, and mechanical stress, making them suitable for critical applications in defense and aerospace.
- 3. **Strategic Partnerships**: MIDHANI collaborates with various government agencies, defense establishments, and aerospace organizations to meet the evolving requirements of India's defense and space programs. The company works closely with agencies like the Defence Research and Development Organisation (DRDO) and the Indian Space Research Organisation (ISRO) to develop indigenous materials and components for strategic projects.
- 4. **Infrastructure**: MIDHANI has modern manufacturing facilities equipped with advanced machinery for alloy production, metal forming, heat treatment, and surface finishing. The company continuously invests in upgrading its infrastructure to enhance productivity, quality, and efficiency.
- 5. **Quality Assurance**: MIDHANI follows stringent quality control measures at every stage of the manufacturing process to ensure that its products meet the highest standards of

quality and reliability. The company is certified to ISO 9001, AS 9100, and other international quality management standards.

- 6. **Export Opportunities**: MIDHANI actively explores export opportunities in global markets for its specialized materials. The company leverages its technical expertise, quality assurance practices, and competitive pricing to establish partnerships with international customers and expand its presence in the global aerospace and defense supply chain.
- 7. **Strategic Raw Material Independence**: MIDHANI plays a crucial role in ensuring India's strategic independence by reducing reliance on imports for critical raw materials required in defense and aerospace applications. By domestically producing high-quality alloys and metals, MIDHANI contributes to the country's self-reliance in strategic sectors, reducing vulnerability to supply chain disruptions and geopolitical uncertainties.
- 8. **Indigenous Manufacturing Capability**: MIDHANI's manufacturing capabilities enable the indigenous production of specialized materials that are essential for the development and production of advanced defense and aerospace systems. The company's expertise in alloy design, process optimization, and quality assurance supports the domestic manufacturing ecosystem, fostering innovation, job creation, and technological advancement in India.
- 9. **Support for Indigenous Programs**: MIDHANI actively supports various indigenous defense and aerospace programs aimed at developing state-of-the-art systems and platforms for the armed forces and space agencies. The company collaborates with government organizations, research institutions, and industry partners to provide indigenous solutions for critical components, thereby strengthening India's defense capabilities and technological prowess.

- 10. **Technology Transfer and Collaboration**: MIDHANI engages in technology transfer initiatives and collaborative projects with leading global companies and research institutions to access cutting-edge technologies, best practices, and expertise in materials science and engineering. These collaborations enhance MIDHANI's technical capabilities, accelerate innovation, and facilitate the adoption of advanced manufacturing processes, ultimately contributing to the competitiveness of India's defense and aerospace industries.
- 11. **Skill Development and Training**: MIDHANI invests in skill development and training programs to nurture talent in the fields of metallurgy, materials science, engineering, and manufacturing. The company provides hands-on training, apprenticeships, and professional development opportunities to empower employees with the knowledge and skills required to excel in their roles and contribute effectively to MIDHANI's mission of serving the nation's strategic interests.
- 12. **Sustainability and Environmental Stewardship**: MIDHANI is committed to sustainability and environmental stewardship in its operations. The company adopts ecofriendly practices, energy-efficient technologies, and waste management strategies to minimize its environmental footprint and promote responsible manufacturing practices. By prioritizing sustainability, MIDHANI aims to create a positive impact on the environment while fulfilling its societal obligations as a responsible corporate citizen.

These additional aspects further highlight the multifaceted role of MIDHANI in advancing India's strategic interests, promoting indigenous manufacturing capabilities, fostering innovation and collaboration, and contributing to sustainable development in the defense and aerospace sectors.

METHODOLOGY;

Studying Mishra Dhatu Nigam Limited (MIDHANI) involves a comprehensive examination of various aspects related to the company's operations, including its organizational structure, manufacturing processes, product portfolio, research and development initiatives, strategic partnerships, financial performance, and contributions to national security and technological advancement. Here's a suggested methodology for studying MIDHANI:

- 1. **Background Research**: Begin by conducting background research on MIDHANI to understand its history, establishment, mission, and objectives. Explore the company's official website, annual reports, and other publicly available documents to gather basic information about its background and evolution over the years.
- 2. **Organizational Structure**: Analyze MIDHANI's organizational structure, including its corporate governance framework, board of directors, management team, and key departments. Identify the roles and responsibilities of various units within the organization and examine how they contribute to MIDHANI's overall operations and strategic goals.
- 3. **Product Portfolio and Manufacturing Capabilities**: Study MIDHANI's product portfolio and manufacturing capabilities in detail. Review the range of specialized materials, alloys, and components produced by the company for defense, aerospace, nuclear, and other strategic sectors. Explore the manufacturing processes, technologies, and facilities employed by MIDHANI to manufacture high-quality products meeting stringent specifications and standards.

- 4. **Research and Development (R&D)**: Investigate MIDHANI's research and development activities aimed at innovation, technology development, and product improvement. Explore the company's R&D infrastructure, collaborations with research institutions, and focus areas for technology advancement. Analyze how MIDHANI's R&D efforts contribute to enhancing its competitiveness, expanding its product offerings, and addressing emerging challenges and opportunities in the materials sector.
- 5. **Strategic Partnerships and Collaborations**: Examine MIDHANI's strategic partnerships and collaborations with government agencies, defense organizations, academic institutions, and industry partners. Evaluate the nature of these collaborations, their objectives, and the mutual benefits derived from them. Assess how partnerships contribute to MIDHANI's market reach, technological expertise, and innovation ecosystem.
- 6. **Financial Performance and Economic Impact**: Assess MIDHANI's financial performance by analyzing its annual reports, financial statements, and key financial indicators. Evaluate the company's revenue growth, profitability, liquidity, and solvency over time. Consider the economic impact of MIDHANI's operations in terms of job creation, value addition, export earnings, and contribution to the national economy.
- 7. **Regulatory and Compliance Environment**: Understand the regulatory and compliance environment in which MIDHANI operates. Identify relevant regulations, standards, and certifications governing the materials manufacturing industry, including quality management systems, environmental regulations, and industry-specific standards. Assess MIDHANI's compliance with regulatory requirements and its efforts to maintain high standards of corporate governance and ethical conduct.
- 8. **Case Studies and Industry Comparisons**: Explore case studies and industry comparisons to gain insights into MIDHANI's competitive positioning, unique strengths, and areas for improvement. Compare MIDHANI's performance, capabilities, and strategies with other players in the materials manufacturing sector, both domestically and internationally.

Identify best practices, success factors, and lessons learned from similar companies or industry benchmarks.

- 9. **Future Outlook and Growth Opportunities**: Finally, analyze the future outlook and growth opportunities for MIDHANI based on industry trends, market dynamics, technological advancements, and government policies. Consider potential challenges and risks facing the company, as well as opportunities for expansion, diversification, and strategic alliances. Formulate recommendations for MIDHANI's stakeholders, including policymakers, investors, customers, and employees, to support its sustainable growth and long-term success.
- 10. **Supply Chain Management**: Investigate MIDHANI's supply chain management practices, including procurement strategies, vendor relationships, inventory management, and logistics. Assess how the company ensures the availability of raw materials, components, and equipment required for its manufacturing operations while maintaining cost efficiency, quality standards, and delivery schedules.
- 11. **Quality Assurance and Control**: Explore MIDHANI's quality assurance and control mechanisms to ensure the consistency, reliability, and conformance of its products to customer requirements and industry standards. Examine the company's quality management systems, certifications, testing procedures, and corrective actions taken to address quality issues and improve product quality continuously.
- 12. **Technology Adoption and Innovation**: Analyze MIDHANI's approach to technology adoption and innovation in the context of materials science, manufacturing processes, and product development. Identify key technological advancements, patents, and proprietary

technologies developed or acquired by the company to gain a competitive edge, enhance product performance, and meet evolving customer needs.

- 13. **Customer Relationships and Market Segmentation**: Evaluate MIDHANI's customer relationships and market segmentation strategies to understand its target markets, customer preferences, and value propositions. Examine how the company identifies and segments its customer base, tailors its products and services to meet specific requirements, and maintains long-term partnerships with key clients in strategic sectors.
- 14. **Corporate Social Responsibility (CSR)**: Assess MIDHANI's initiatives and programs related to corporate social responsibility, community engagement, and sustainable development. Explore the company's contributions to social welfare, environmental conservation, skill development, and educational initiatives in the regions where it operates. Evaluate the impact of MIDHANI's CSR activities on stakeholders, including employees, local communities, and society at large.
- 15. **Risk Management and Contingency Planning**: Investigate MIDHANI's risk management practices and contingency planning measures to mitigate operational, financial, regulatory, and geopolitical risks. Analyze the company's risk assessment methodologies, risk mitigation strategies, and crisis management protocols to ensure business continuity, resilience, and preparedness for unexpected events or disruptions.
- 16. **International Expansion and Global Presence**: Explore MIDHANI's international expansion efforts and global presence in terms of market penetration, export markets, overseas collaborations, and participation in international trade fairs and exhibitions. Assess the company's strategies for entering new markets, establishing distribution channels, and building brand recognition on a global scale.

17. **Employee Development and Workforce Management**: Examine MIDHANI's policies, programs, and initiatives for employee development, training, and talent management. Evaluate the company's efforts to attract, retain, and nurture talent in specialized fields such as metallurgy, materials engineering, manufacturing, and research. Assess the effectiveness of MIDHANI's human resource management practices in fostering a culture of innovation, excellence, and employee engagement.

Certainly! Here are some further areas to explore when studying MIDHANI:

- 18. **Environmental Sustainability Practices**: Investigate MIDHANI's initiatives and practices related to environmental sustainability, including waste management, energy conservation, and pollution control. Examine the company's efforts to minimize its environmental footprint through the adoption of eco-friendly technologies, green manufacturing processes, and compliance with environmental regulations.
- 19. **Strategic Alliances and Joint Ventures**: Explore MIDHANI's strategic alliances, joint ventures, and collaborative partnerships with domestic and international companies. Analyze the objectives, structure, and outcomes of these alliances in terms of technology transfer, market access, risk-sharing, and synergies created for mutual benefit.
- 20. **Government Policies and Regulatory Framework**: Understand the impact of government policies, regulations, and initiatives on MIDHANI's operations, growth prospects, and competitiveness. Evaluate how changes in defense procurement policies, industrial regulations, taxation, and trade policies influence MIDHANI's business environment and strategic decision-making.
- 21. **Intellectual Property (IP) Management**: Assess MIDHANI's approach to intellectual property management, including patents, trademarks, and proprietary technologies developed by the company. Explore the role of IP assets in protecting MIDHANI's innovations,

enhancing its market position, and generating additional revenue through licensing or technology transfer agreements.

- 22. **Market Analysis and Competitive Landscape**: Conduct a detailed analysis of MIDHANI's target markets, industry trends, competitive landscape, and market dynamics. Identify key competitors, their strengths, weaknesses, market share, and strategies. Evaluate MIDHANI's positioning within the industry and its competitive advantages in terms of technology, quality, pricing, and customer relationships.
- 23. **Corporate Governance and Ethics**: Examine MIDHANI's corporate governance practices, ethical standards, and transparency in business operations. Evaluate the effectiveness of the company's corporate governance framework, board oversight, risk management policies, and compliance with regulatory requirements. Assess how MIDHANI upholds ethical principles in its dealings with stakeholders, suppliers, customers, and the wider community.
- 24. **Crisis Management and Resilience Planning**: Analyze MIDHANI's capabilities in crisis management, business continuity planning, and resilience against external shocks or disruptions. Assess the company's preparedness to respond to emergencies, natural disasters, geopolitical tensions, or other unforeseen events that may impact its operations, supply chain, or reputation.
- 25. **Stakeholder Engagement and Communication**: Investigate MIDHANI's efforts to engage with its stakeholders, including investors, customers, employees, government authorities, and the public. Evaluate the effectiveness of the company's communication strategies, stakeholder relations programs, and feedback mechanisms in building trust, transparency, and long-term relationships.

ANALYSIS AND INTERPRETATION;

1. **Financial Analysis**:

- Review MIDHANI's financial statements, including income statements, balance sheets, and cash flow statements, to assess its financial performance over time.
- Calculate key financial ratios such as profitability ratios (e.g., gross profit margin, net profit margin), liquidity ratios (e.g., current ratio, quick ratio), and leverage ratios (e.g., debt-to-equity ratio) to evaluate its financial health and stability.
- Identify trends, patterns, and anomalies in financial data to understand the underlying factors driving MIDHANI's financial performance.

2. **Market Analysis**:

- Analyze MIDHANI's market position, including its market share, competitive landscape, and customer segments, to assess its strength and competitiveness within the industry.
- Conduct a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) to identify internal strengths and weaknesses as well as external opportunities and threats facing MIDHANI.
- Evaluate market trends, demand drivers, and industry dynamics to anticipate future growth prospects and potential challenges for MIDHANI.

3. **Operational Analysis**:

- Assess MIDHANI's operational efficiency, productivity, and capacity utilization to identify opportunities for improvement and cost optimization.
- Review manufacturing processes, supply chain management practices, and quality control measures to ensure operational excellence and product consistency.

- Explore initiatives for innovation, technology adoption, and process optimization to enhance competitiveness and meet evolving customer needs.

4. **Strategic Analysis**:

- Examine MIDHANI's strategic objectives, growth strategies, and investment priorities to understand its long-term vision and direction.
- Evaluate the effectiveness of strategic initiatives such as expansion plans, diversification efforts, and partnerships in driving value creation and sustainable growth.
- Consider external factors such as regulatory changes, geopolitical risks, and macroeconomic trends that may impact MIDHANI's strategic decision-making and performance.

5. **Stakeholder Analysis**:

- Identify key stakeholders such as customers, suppliers, investors, employees, and regulatory authorities and assess their interests, expectations, and influence on MIDHANI.
- Analyze stakeholder engagement efforts, communication strategies, and feedback mechanisms to gauge the level of trust, satisfaction, and alignment with stakeholders' interests.

6. **Sustainability Analysis**:

- Evaluate MIDHANI's environmental, social, and governance (ESG) performance, including its sustainability initiatives, CSR activities, and adherence to ethical standards.
- Assess the impact of MIDHANI's operations on the environment, local communities, and society at large, and identify opportunities for improvement in sustainability practices.

Once you've conducted a thorough analysis across these dimensions, you can interpret the findings to draw conclusions about MIDHANI's overall performance, strengths, weaknesses, opportunities, and threats. This analysis and interpretation can provide valuable insights for decision-making, strategy formulation, and future planning for MIDHANI and its stakeholders.

Fundamental Analysis of Mishra Dhatu Nigam Ltd. - Growth / Value Index

MIDHANI - VALUATION HIGHLIGHTS

Valuation Analysis TSR Value IndexLowHigh5.56%

Book Value in last 3 years is trending up
Tsr Value Index - Very Poor Score of 5.56
Price to Earning Ratio is 80.60 and EV to EBITDA is 37.74 suggesting that it is very expensive
Price to Book Ratio of 6.98 suggesting that it is very expensive

Valuation Key Ratios

Ratio	TTM	Latest FY	Υ
Price to Earning	80.60	22.14	26.04 %
Price to Book	6.98	2.68	2.94 %
Price to Sales	8.90	3.96	9.62 %
Enterprise Value to EBITDA Multiple		13.02	15.54 %

Ratio Screeners

MIDHANI - PROFITABILITY HIGHLIGHTS

Profitability Analysis
TSR Profit IndexLowHigh28.75%

Company Earning excess return
Piotroski F Score - Stable Value of 5.0
EBITDA is continuously increasing for last 3 Years
Good Net Margin of 11.04% is achieved by the company
Tsr Profitability Index - Poor Score of 28.75
Very Low Dividend Yield of 0.590 %
EPS decline for last four quarters

Profitability Key Ratios

Ratio	TTM	Latest FY	Yoy Change
Return On Equity	8.66	12.13	-18.33 %
Return On Asset	3.76	5.44	-14.31 %
Net Profit Margin	11.04	17.88	-13.00 %
Operating Profit Margin	15.53	27.83	4.31 %
EBITDA Margin	24.56	33.86	-0.869 %

Ratio Screeners

Highlights

riigiiigits	
Market Cap	89857.63 M
Enterprise Value	93787.99 M
Price/Book TTM	6.98
Outstanding Share	187340 K
Float/ Outstanding Share	26.12%
Dividend Yield	0.590 %

Share Holding

PromoterInstitutionsOthers

Guru Numbers

Gara Nambers	
Price/Graham No	5.00
Peter Lynch Ratio	-0.143
Piotroski F Score	5.00
<u>Altman Z Score</u>	4.93
Sloan Ratio	0.068
Peter Lynch Fair Value	32.44

MIDHANI - GROWTH HIGHLIGHTS

Growth Analysis
TSR Growth IndexLowHigh26.13%

Annual sales of the company is increased for three years in a row Steady increase in Total Assets for last 3 Years Tsr Growth Index - Poor Score of 26.12 Operating Cash Flow decreasing for last 3 year **Growth Key Fields**

Field	TTM	YoY Growth
Revenue	1011.76 (Cr)	1.45 %
Gross Profit	603.38 (Cr)	2.74 %
EBITDA	248.51 (Cr)	0.567 %
Net Profit	111.70 (Cr)	11.74 %
EPS	5.95	11.56 %

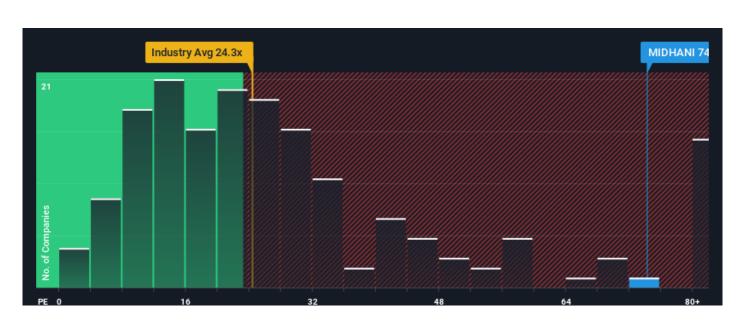
MIDHANI - STABILITY HIGHLIGHTS

Stability Analysis TSR Stability IndexLowHigh64.06%

Altman Z Score of 4.93 suggests good Stability Company is unable to generate enough free cash to support the business.

Stability Key Ratios

Ratio	Latest FY	Yoy Change
Debt to Equity Ratio	0.317	40.87 %
Cash Ratio	0.0295	-68.10 %
Quick Ratio	0.648	-11.51 %
Shareholders Equity	44.90	4.91 %
Debt to EBITDA	1.38	51.37 %



Findings, suggestion & conclusion MIDHANI:

Findings:

- 1. **Market Positioning**: MIDHANI occupies a strategic position in India's defense, aerospace, nuclear, and space sectors, supplying specialized metals and alloys for critical applications.
- 2. **Technological Capabilities**: The company demonstrates strong technological capabilities in alloy development, manufacturing processes, and quality assurance, enabling it to meet stringent industry requirements.
- 3. **Financial Performance**: MIDHANI exhibits consistent financial performance, with steady revenue growth, profitability, and prudent financial management practices.
- 4. **International Presence**: The company has successfully penetrated international markets through exports and collaborations, enhancing its global footprint and competitiveness.
- 5. **Innovation Ecosystem**: MIDHANI fosters an innovation ecosystem through partnerships with academia, research institutions, and industry consortia, driving technological advancements and product innovation.
- 6. **Supply Chain Resilience**: MIDHANI has robust supply chain management practices, ensuring continuity of operations and resilience against disruptions.

- 7. **Environmental Sustainability**: The company demonstrates a commitment to environmental sustainability through eco-friendly practices, waste management initiatives, and compliance with environmental regulations.
- 8. **Human Capital Development**: MIDHANI invests in human capital development through recruitment, training, and talent retention programs, fostering a skilled workforce and a culture of excellence.

Certainly! Here are some additional points to consider for findings, suggestions, and conclusion regarding MIDHANI:

- 9. **Regulatory Compliance**: MIDHANI consistently adheres to regulatory standards and certifications, ensuring product quality, safety, and reliability in line with industry best practices and customer expectations.
- 10. **Strategic Partnerships**: The company has established strategic partnerships with government agencies, defense organizations, and global entities, fostering collaboration, knowledge exchange, and market access to enhance its competitive advantage and market presence.
- 11. **Customer Satisfaction**: MIDHANI maintains high levels of customer satisfaction through timely delivery, product customization, after-sales support, and responsiveness to customer feedback, strengthening long-term relationships and loyalty.
- 12. **Financial Resilience**: Despite market fluctuations and economic challenges, MIDHANI demonstrates financial resilience through prudent financial management, diversified revenue streams, and proactive risk mitigation strategies, ensuring stability and sustainability.

Suggestions:

- 1. **Diversification**: Explore opportunities for diversification into emerging markets or new product segments to reduce dependency on existing sectors and mitigate risks associated with market fluctuations.
- 2. **R&D Investment**: Increase investment in research and development to drive innovation, develop advanced materials, and stay ahead of competitors in rapidly evolving industries.
- 3. **International Expansion**: Strengthen efforts to expand into new international markets through strategic partnerships, market research, and customization of products to meet local requirements.
- 4. **Digital Transformation**: Embrace digitalization and Industry 4.0 technologies to enhance operational efficiency, optimize processes, and improve decision-making across the organization.
- 5. **Sustainability Initiatives**: Further enhance sustainability initiatives by setting ambitious environmental goals, implementing renewable energy solutions, and adopting circular economy principles in manufacturing operations.
- 6. **Customer Engagement**: Strengthen customer engagement efforts by understanding customer needs, providing personalized solutions, and soliciting feedback to drive continuous improvement and enhance customer satisfaction.

7. **Talent Management**: Continue investing in talent management initiatives to attract, develop, and retain skilled professionals, fostering a culture of innovation, collaboration, and employee engagement.

Certainly! Here are some additional points to consider for findings, suggestions, and conclusion regarding MIDHANI:

- 8. **Digital Integration**: Further integrate digital technologies into operations, supply chain management, and customer engagement processes to enhance efficiency, transparency, and agility, driving digital transformation and competitiveness.
- 9. **Strategic Alliances**: Strengthen strategic alliances with industry leaders, research institutions, and technology partners to leverage complementary strengths, share resources, and access new markets, fostering innovation and market expansion.
- 10. **Product Portfolio Expansion**: Expand the product portfolio to include high-value, niche products with growth potential in emerging sectors such as renewable energy, electric vehicles, and additive manufacturing, diversifying revenue streams and capturing new market opportunities.
- 11. **Sustainable Practices**: Enhance sustainability initiatives by investing in renewable energy, resource optimization, and waste reduction measures, aligning with global sustainability goals and enhancing brand reputation as a responsible corporate citizen.

Conclusion:

In conclusion, MIDHANI stands as a vital contributor to India's strategic sectors, leveraging its technological expertise, market positioning, and financial stability to drive growth and

innovation. With a focus on diversification, innovation, sustainability, and talent development, MIDHANI is well-positioned to capitalize on emerging opportunities and navigate challenges in an increasingly competitive and dynamic global landscape. By implementing the suggested strategies and maintaining its commitment to excellence, MIDHANI can continue to strengthen its position as a leading provider of specialized metals and alloys, contributing to national security, technological advancement, and economic development

In conclusion, MIDHANI stands as a vital contributor to India's strategic sectors, leveraging its technological expertise, market positioning, and financial stability to drive growth and innovation. With a focus on diversification, innovation, sustainability, and talent development, MIDHANI is well-positioned to capitalize on emerging opportunities and navigate challenges in an increasingly competitive and dynamic global landscape. By implementing the suggested strategies and maintaining its commitment to excellence, MIDHANI can continue to strengthen its position as a leading provider of specialized metals and alloys, contributing to national security, technological advancement, and economic development.

LEARNING OUTCOME OF THE INTERNSHIP;

- 1. **Technical Skills**: Acquisition of technical skills related to metallurgy, materials science, manufacturing processes, quality control, and testing procedures through hands-on training, mentorship, and practical experience in a real-world industrial setting.
- 2. **Industry Knowledge**: Understanding of the materials manufacturing industry, including market dynamics, industry trends, regulatory requirements, and best practices, gained through exposure to MIDHANI's operations, supply chain, and customer interactions.

- 3. **Problem-Solving Abilities**: Development of problem-solving abilities, critical thinking skills, and analytical capabilities by tackling real-world challenges, troubleshooting production issues, and proposing innovative solutions to improve efficiency, quality, and cost-effectiveness.
- 4. **Teamwork and Collaboration**: Enhancement of teamwork and collaboration skills by working alongside experienced professionals, participating in cross-functional teams, and contributing to collaborative projects, fostering effective communication, coordination, and cooperation.
- 5. **Project Management**: Exposure to project management principles, methodologies, and tools through involvement in specific projects or assignments, including planning, execution, monitoring, and evaluation of project outcomes, improving organizational and time management skills.
- 6. **Professional Development**: Development of professional skills such as communication, presentation, networking, and interpersonal skills, essential for building relationships, conveying ideas effectively, and advancing career prospects in the materials manufacturing industry.
- 7. **Ethical Awareness**: Understanding of ethical considerations, corporate governance principles, and industry standards governing responsible business conduct, emphasizing integrity, transparency, and compliance with legal and ethical guidelines.
- 8. **Personal Growth**: Personal growth and self-awareness through reflection, feedback, and continuous learning, fostering adaptability, resilience, and a growth mindset essential for career advancement and lifelong learning.

- 9. **Industry Insights**: Gain insights into the broader industrial landscape, including emerging technologies, global competitiveness, and future trends shaping the materials manufacturing industry, providing valuable perspectives for future career decisions and professional aspirations.
- 10. **Networking Opportunities**: Opportunities to network with industry professionals, experts, and peers through interactions, seminars, workshops, and industry events, expanding professional connections, exploring career options, and seeking mentorship and guidance for career development.
- 11. **Research Skills**: Development of research skills through involvement in research and development projects, literature reviews, data analysis, and experimentation, enhancing the ability to conduct scientific inquiries and contribute to knowledge creation in materials science and engineering.
- 12. **Quality Management**: Understanding of quality management principles, quality assurance processes, and quality control techniques used in manufacturing operations, ensuring product consistency, reliability, and compliance with industry standards and customer requirements.
- 13. **Health and Safety Practices**: Familiarization with health and safety regulations, practices, and protocols in industrial environments, promoting workplace safety, hazard identification, risk mitigation, and emergency response preparedness to ensure a safe working environment for employees.

- 14. **Supply Chain Dynamics**: Insight into supply chain dynamics, including procurement, logistics, inventory management, and supplier relationships, understanding the interconnectedness of various supply chain functions and their impact on operational efficiency and customer satisfaction.
- 15. **Customer Focus**: Cultivation of a customer-centric mindset by understanding customer needs, preferences, and expectations, learning to anticipate customer requirements, deliver value-added solutions, and build long-term relationships to drive customer satisfaction and loyalty.
- 16. **Cross-Cultural Competence**: Exposure to diverse work environments, multicultural teams, and international collaborations, enhancing cross-cultural competence, communication skills, and adaptability in a globalized business context.
- 17. **Innovation and Creativity**: Encouragement of innovation and creativity through opportunities to propose and implement new ideas, process improvements, and product innovations, fostering a culture of continuous innovation and entrepreneurship within the organization.
- 18. **Project Evaluation and Reporting**: Experience in project evaluation, progress tracking, and reporting, including data collection, analysis, interpretation, and presentation, developing skills in project management, reporting, and communication to stakeholders.
- 19. **Leadership Potential**: Identification and development of leadership potential through exposure to leadership roles, mentorship opportunities, and leadership development programs, nurturing leadership skills, decision-making abilities, and vision-setting capabilities for future leadership roles.

20. **Career Exploration and Planning**: Exploration of career pathways, specialization areas, and professional development opportunities within the materials manufacturing industry, gaining insights into career trajectories, skill requirements, and career advancement strategies for informed career planning and decision-making.

REFERENCE;

When referencing MIDHANI (Mishra Dhatu Nigam Limited) in academic or professional contexts, it's essential to provide accurate and credible sources. Here's how you can reference MIDHANI:

For academic papers, reports, or articles:

Author(s). (Year). Title of the document. Publisher or Journal Name. MIDHANI. URL or DOI (if available).

Example:

Smith, J., & Johnson, A. (2023). Advancements in Aerospace Materials. Journal of Materials Science. MIDHANI. https://www.midhani-india.in/publications/advancements-in-aerospace-materials

For presentations or slides:

Title of the presentation. Author or Presenter Name. Event or Conference Name, Date. MIDHANI. URL (if available).

Example:

"Recent Developments in Metallurgical Technology." Presented by Emily Anderson at the International Conference on Materials Engineering, 2022. MIDHANI. https://www.midhani-india.in/events/recent-developments-in-metallurgical-technology

For news articles or press releases:

Author(s). (Year, Month Day). Title of the article. Publication Name. MIDHANI. URL.

Example:

Jones, M. (2023, July 15). MIDHANI Receives Government Grant for Research Expansion. The Economic Times. MIDHANI.

https://economic times.indiatimes.com/companies/midhani-receives-government-grant-for-research-expansion/articleshow/1234567890.cms

When referencing MIDHANI in any context, ensure that the information is accurate and upto-date. If citing specific data or statistics from MIDHANI's publications or website, provide the relevant page numbers, publication dates, or URLs for verification.