

# DISSERTATION REPORT

At

**HORIBA**

## **“RESILIENCE AND PROGRESSION: EXAMINING HORIBA INDIA'S STRATEGIC PATH”**

By

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PG/22/135

Under the Guidance of  
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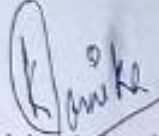
Title: Resilience and Progression: Examining HORIBA India's Strategic Path

Date- 18/6/24

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The Candidate has successfully carried out the study designated to him during internship training and his/her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his/her future endeavors.

  
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The following dissertation titled **"RESILIENCE AND PROGRESSION: Examining HORIBA India's Strategic Growth"** at **"HORIBA India"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

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Plagiarism detect software used	"TURNITIN"		
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under the supervision of Dr. DIVYA AGGARWAL

for award of PGDM (Hospital & Health Management) of the Institute carried out during the  
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## FEEDBACK FORM

**Name of the Student:** Dr. Upasana Suryavanshi

**Name of the Organization in Which Dissertation Has Been Completed:** HORIBA India

**Area of Dissertation:** "RESILIENCE AND PROGRESSION: EXAMINING  
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**Attendance:** 78/82

**Objectives achieved:** Determined, Hard-working individual delivered worked  
assigned to her on time and focused on work

**Deliverables:** Actively participated with the organization team and showed  
leadership qualities, completed assigned task within the timeframe.

**Strengths:** Optimistic and Progressive, Eager to learn new management and  
technical skills.

**Suggestions for Improvement:** Try to continue to building more active communications.

**Suggestions for Institute (course curriculum, industry interaction, placement, alumni):**



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## ACKNOWLEDGEMENT

I would like to seize this moment to express my profound appreciation to **HORIBA India** for the invaluable opportunity they granted me during the course of my Dissertation. I am sincerely grateful for the exposure and practical experience I gained within the HORIBA India premises.

I am immensely grateful to esteemed **Dr. P K Soju, Segment Head- Bio & Healthcare** for the valuable opportunity he provided me during my dissertation at HORIBA India. His support and guidance have greatly influenced my academic and professional growth.

Furthermore, I would like to extend my sincerest thanks to **Ms. Kanika Thakur, Lead-Corporate Communication**, and my esteemed faculty guide, for his exceptional mentorship, instruction, and valuable advice throughout the duration of my project.

I would also like to extend my sincere thanks to **Mr. Shrish Dixit, Head Medical – India & SAARC Nations** for his unwavering support, guidance and encouragement throughout my journey.

Lastly, I am thankful to the Almighty, as well as my family and friends, for their unwavering support and cooperation throughout my journey. Their presence and belief in me have been a constant source of strength and motivation.

## ABSTRACT

In "Resilience and Progression: Examining HORIBA India's Strategic Path," a dissertation, HORIBA India's strategic initiatives and transformation in the hematological diagnostics industry are examined. The study takes a thorough approach, examining the company's performance from the pre-COVID era (2018–2020) to the post-COVID time (2021–2024) using both retrospective and prospective research approaches. The dissertation attempts to provide insights into HORIBA India's growth trajectory and market positioning by utilizing secondary data from financial reports, industry journals, and market research.

The background part emphasizes the drawbacks of traditional manual methods for hematological diagnostics and the improvements made possible by fully automated analyzers, which yield accurate and timely results. With the tremendous improvement in laboratory efficiency and diagnostic capabilities brought about by these technical breakthroughs, HORIBA India has been a major player in the market since 2006.

The study technique uses exponential growth and compound annual growth rate (CAGR) models to analyse market trends, strategic objectives, and financial measures. The operational landscape and growth potential of the organization are comprehensively understood through the integration of SWOT and PESTEL studies in the study. Important results show that HORIBA India's operational profit and overall sales have increased significantly, with the post-COVID CAGR increasing to 39.4% from a pre-COVID drop of 4.5%.

HORIBA India's success has been mostly driven by strategic efforts such product innovation, market expansion, and aggressive engagement in government programs. The SWOT analysis identifies obstacles like pricing pressures and market competition while also highlighting strengths in product innovation and market presence. The PESTEL study draws attention to how external factors, such as the state of the economy and adherence to regulations, affect the business's operations.

The dissertation comes to the conclusion that because of HORIBA India's consistent innovation and flexibility in response to market and regulatory changes, the company is well-positioned to take advantage of new prospects in the healthcare sector. The organization has demonstrated its resilience and success in the Indian IVD landscape through its outstanding financial performance and strategic efforts.

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## **ABBREVIATIONS**

CAGR – Compound Annual Growth Rate

HEZ- HORIBA Experience Zone

PMJAY- Pradhan Mantri Jan Arogya Yojana

CSR- Corporate Social Responsibility

MPV- Mean Platelet Volume

PCT- Platelet Crit

PDW- Platelet Distribution Width

P-LCC- Platelet Large Cell Count

P-LCR- Platelet Large Cell Ratio

EMS- Environmental Management System

Q1- Quarter 1

ATSM- AMERICAN SOCIETY FOR TESTING AND MATERIALS

# ORGANIZATION PROFILE

## INTRODUCTION

HORIBA's 70-year legacy as a pioneer in analysis and instrumentation has profoundly shaped the way we understand and interact with the world. The business line includes R&D, Manufacturing, Sales, Services of analysis and measurement equipment. Since its founding as **HORIBA, LTD** in **January 1953**, the company has grown to become a global network of **49** conglomerates, with the goal of achieving limitless opportunities.

Since establishing a subsidiary in India in 2006, HORIBA India, a branch of the renowned HORIBA Japan, has experienced consistent growth. This expansion has solidified their presence not only within India but throughout the SAARC nations. HORIBA India has fostered deeper relationships through comprehensive sales, service, application support, and projects.

Currently HORIBA has three major business segments: -

- **Energy & Environment-** Helping to transform the energy network toward the realization of a sustainable society.
- **Bio & Healthcare-** Supporting Biological and Life Science Research to protect healthy, safe and secure life.
- **Materials & Semiconductor-** Supporting advanced Information Technologies needed to achieve New Daily ways of Life

## **OUR FUTURE – Vision, Mission and Values.**

Our Vision

Joy and Fun for All

Our Mission

Shape our future with solutions based on  
HONMAMON and Diversity

Our Values

Spirit of Challenge

Reliability and Trust

Pursuit of Excellence

Our Corporate Motto- **Joy and Fun**





# RESILIENCE AND PROGRESSION: EXAMINING HORIBA INDIA'S STRATEGIC PATH

**BACKGROUND:**

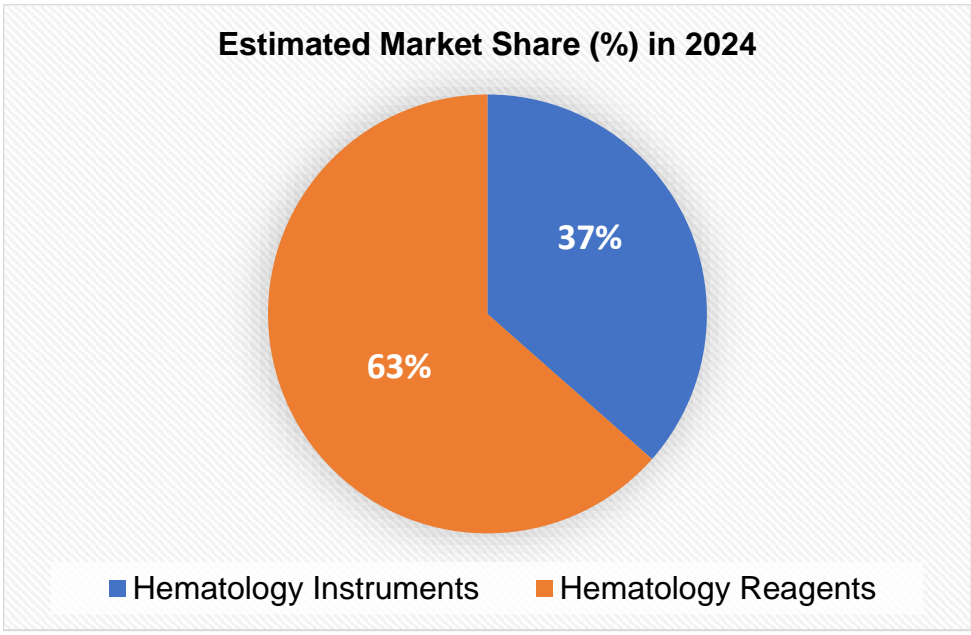
The conventional manual techniques for defining blood cells and their constituent parts are commonly considered ineffective and prone to errors. To collect the vital information needed for illness detection and tracking, these techniques frequently call for repeated sample processing as well as extra steps such nucleated red blood cell analysis and optical counting. In contrast the extensive range of fully automated analyzers perform the same tasks with great precision and consistency providing rapid results with accuracy.

The advancements in hematology analyzers technology have enhanced the efficiency of laboratories enable more comprehensive diagnostic capabilities, contributing significantly to the advancement of hematological diagnostics.

**Indian Hematology Instrument and Reagent Market size 2024**

**Growth rate- 4.39%**

Category (Growth rate- 4.39%)	Estimated Market Share (%) in 2024 (FORECASTED)	Market Size (INR Crore) (FORECASTED)
Hematology Instruments	37%	488.90
Hematology Reagents	63%	844.10
Total Hematology Market	100%	<b>1333 Cr</b>



### **Leading Brands in Hematology and Reagent Market**

<b>SEGMENT</b>	<b>BRAND</b>
High-end 5-part instruments	SYSMEX, HORIBA, Mindray and Transasia
Entry 5-part instruments	SYSMEX, HORIBA, Mindray, Transasia, Boule
3-part instrument	SYSMEX, HORIBA, Mindray and Transasia
Other 3-part instruments	Agappe, Beckman Coulter, Urit, Vector, Merit

## **LITERATURE REVIEW**

**Ghosh, K. (2011) et al.** conducted a literature review examining the journey of haematology research in India. The creation research institutions and educating subsequent generations, trailblazing scientists created a solid foundation despite early financial constraints. The subject is booming now because to more financing and partnerships between medical schools and research organizations. India in its golden age of haematology study, according to this auspicious period.

Similarly, **Chhabra, G. (2018) et al.** also conducted a study that more information than just cell counts is available with new hematology analyzers. Infections and even certain types of cancer can be detected through analysis of this data, which includes cell size and internal complexity. Although encouraging, additional study is required before routinely use this data. By making full use of these analyzers, patient care might be enhanced and expenses could be lowered.

Likewise, **Ciepiela, O. (2016) et al.** conducted a study on three different automated blood analyzers (Mindray, Sysmex, Beckman) and found they gave slightly different results, especially for white blood cell counts and types. While there was good agreement between the machines and manual analysis for red blood cells, the white blood cell results were inconsistent between the machines. This means these machines can't be used interchangeably and doctors need to be aware of these variations when interpreting test results.

**Jing Wang. (2019) et al.** found in their study that that analysed a year's worth of external quality control data to evaluate two blood analyzers machines: the Mindray BC-5180 and the Sysmex XN-1000. The outcomes demonstrated that the two machines agreed well. The average values for platelets (PLT), haematocrit (HCT), hemoglobin (Hb), red blood cells (RBC), and white blood cells (WBC) were statistically not different from one another. Additionally, more than 95% of the time, the data points from the two machines fell within allowable variation limits from one another. All things considered, this indicates that the full blood count values produced by Mindray BC-5180 and Sysmex XN-1000 are clinically comparable.

Similarly, **Kwang-Sook Woo (2019) et al.** Conducted a study on the Abbott Alinity hq automated hematology analyzer is being assessed to see if it can be used in clinical settings. Its effectiveness was evaluated against manual cell counts and a standard analyzer (Sysmex XN-9000) on more than 300 blood samples from both healthy and sick people, including adults and children. Alinity HQ performed really well across the board. Blood samples could be kept stable for analysis for up to 36 hours at room temperature and 48 hours when refrigerated. Furthermore, consistent findings from numerous tests showed acceptable precision. Above all, compared to other techniques, the Alinity hq demonstrated exceptional accuracy and good correlations for most blood count measures. According to these results, the Abbott Alinity hq performs consistently well for routine blood count analysis, making it a promising.

Likewise, **Aléxia Thamara Gasparin (2022) et al.** Conducted study to assess the Hi-lab system, a novel handheld CBC equipment. Conventional continuous flow counters have limitations in certain contexts due to their large size, high cost, and need for regular maintenance. Current handheld electronics are frequently faulty. AI and machine learning are examples of cutting-edge technology that the Hi-lab system uses for analysis. Researchers used over 450 blood samples from both healthy and sick people to compare the Hi-lab system to a typical lab machine. The Hi-lab equipment performed admirably on both venous and capillary blood samples, demonstrating great accuracy and precision. This indicates that for point-of-care CBC testing, the Hi-lab system provides a quick, dependable, and affordable substitute.

## **Overview**

In the modern day the sophisticated haematology analyzers operates on advanced algorithms which implements data fusion capabilities, integrating information from multiple separate modules, spotting patterns, and locate and correct interfering factors. These cutting-edge technologies are the essence of HORIBA India, a leading player in the hematology reagents and equipment market since 2006. This study focuses on the company's transformation, strategic initiatives, and market position from the pre-COVID era to the present, with projections for the future. The analysis incorporates financial metrics, strategic initiatives and market trends to offer insights into the company's growth and potential in Indian IVD landscape.

### **Study explores the following points:**

1. Evolution of HORIBA Medical from pre-Covid to the Post-Covid era
2. Strategic initiatives taken to drive the growth and current market position of HORIBA India
3. What are the key factors influencing HORIBA India's future prospects in the Indian healthcare market
4. External factors (political, economic, social, technological, environmental, and legal) to be realised that could impact HORIBA India's operations and growth

## **RESEARCH METHODOLOGY**

**STUDY DESIGN:** The study adopted **retrospective** and **prospective design**, examining historical data of pre-Covid years (2018-2020) and post-Covid years (2021-2024).

**SAMPLE SELECTION:** Secondary data obtained from HORIBA India's financial reports, industry reports, and relevant market research.

**DATA COLLECTION:** Secondary data collected from:

- Financial statements of HORIBA India.
- Industry reports and market analysis documents.
- Publications and articles on HORIBA India's strategic initiatives.
- Government and regulatory body publications relevant to the healthcare and diagnostics industry

**SAMPLE SIZE:** Hence, secondary study data from the years 2018 to 2024 will be analysed.

**DATA ANALYSIS:** examination of HORIBA India's performance by analysing data sourced from financial reports, industry insights, and market research. Through the application of Compound Annual Growth Rate (CAGR) and Exponential Growth models, the study evaluates the company's total sales and operating profit across pre-COVID (2018-2020) and post-COVID (2021-2023) periods, with a specific focus on



the pivotal years of 2023 and 2024. Furthermore, the analysis incorporates SWOT and PESTEL frameworks to offer a holistic understanding of HORIBA India's operational landscape and growth trajectory. Leveraging the analytical capabilities of MS Excel software was utilized for various functions, formulas and statistical abilities, and to ensures data accuracy and reliability while providing actionable insights to inform strategic decision-making for sustainable business development.

## **HORIBA India performance evolution from pre-COVID (2018-2020) to post-COVID era (2021-23 & 2024)**

**Financial Metric:**

**1BJPY** (Billion Japanese Yen) = 0.53 INR

$$CAGR = \left( \frac{V_{\text{final}}}{V_{\text{begin}}} \right)^{1/t} - 1$$

**CAGR**= Compound Annual Growth Rate

$V_{\text{begin}}$  = Beginning Value

$V_{\text{final}}$  = Final Value

$t$  = Time in year

### **Pre-COVID (2018-2020)**

- **Total sales:**

$$CAGR = \left( \frac{3.03}{3.33} \right)^{1/2} - 1 = -0.045 = -4.5\%$$

- **Operating Profit:**

$$CAGR = \left( \frac{0.197}{0.227} \right)^{1/2} - 1 = -0.068 = -6.8\%$$

### **Post-COVID (2021-2023)**

- **Total sales:**

$$CAGR = \left( \frac{7.21}{3.68} \right)^{1/2} - 1 = 0.394 = 39.4\%$$

- **Operating Profit:**

$$CAGR = \left( \frac{0.909}{0.303} \right)^{1/2} - 1 = 0.707 = 70.7\%$$

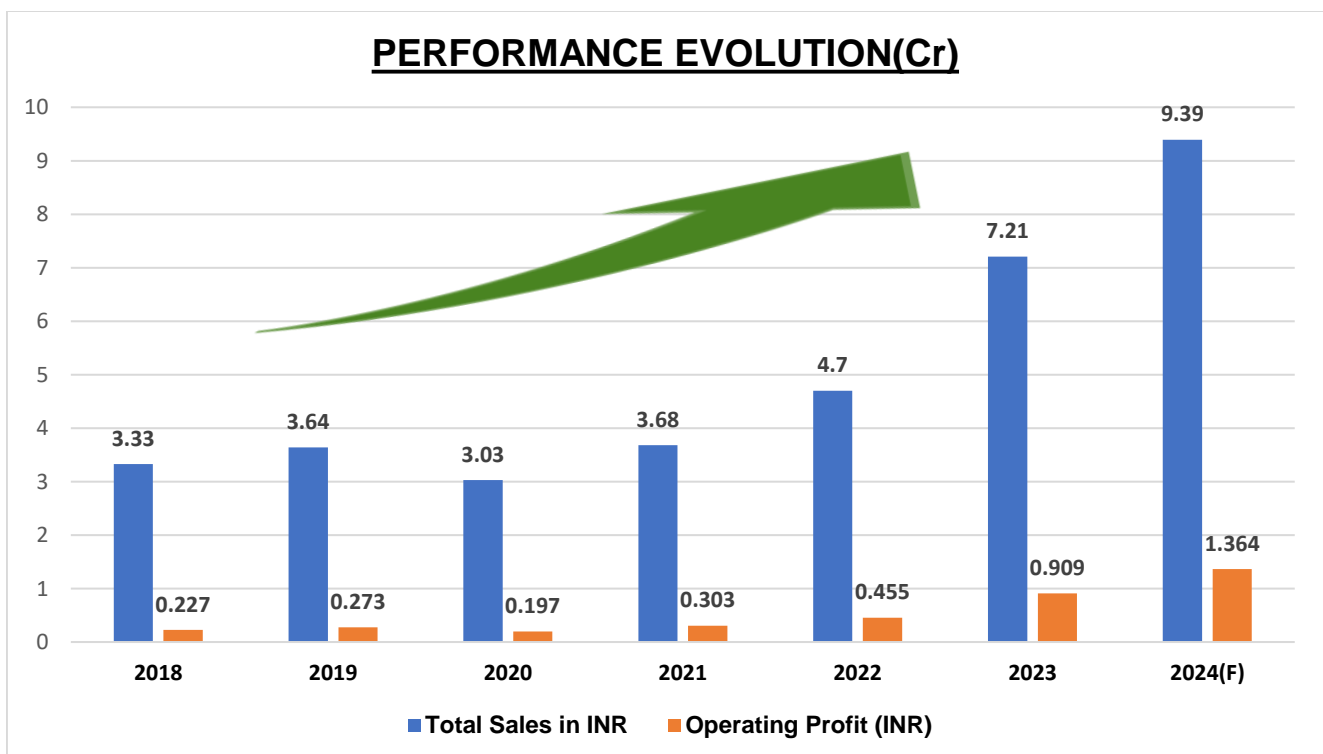
## 2024 Forecasted Growth

- **Total Sales**

$$\text{Growth} = \left( \frac{9.39}{7.21} \right)^{1/2} - 1 = 0.3025 = 30.25\%$$

- **Operating Profit**

$$\text{Growth} = \left( \frac{1.364}{0.909} \right)^{1/2} - 1 = 0.5 = 50\%$$



## Exponential Growth:

Calculated to show growth between the consecutive years between 2023-2024

$$\text{Exponential Growth} = \left( \frac{\text{Current Year Value}}{\text{Previous Year Value}} \right) - 1$$

$$\text{Growth rate 2023} = \left( \frac{7.21}{4.7} \right) - 1 = 0.5340 = 53.40\%$$

$$\text{Growth rate 2024 (Forecasted)} = \left( \frac{9.39}{7.21} \right) - 1 = 0.3025 = 30.25\%$$

## Operational Profit

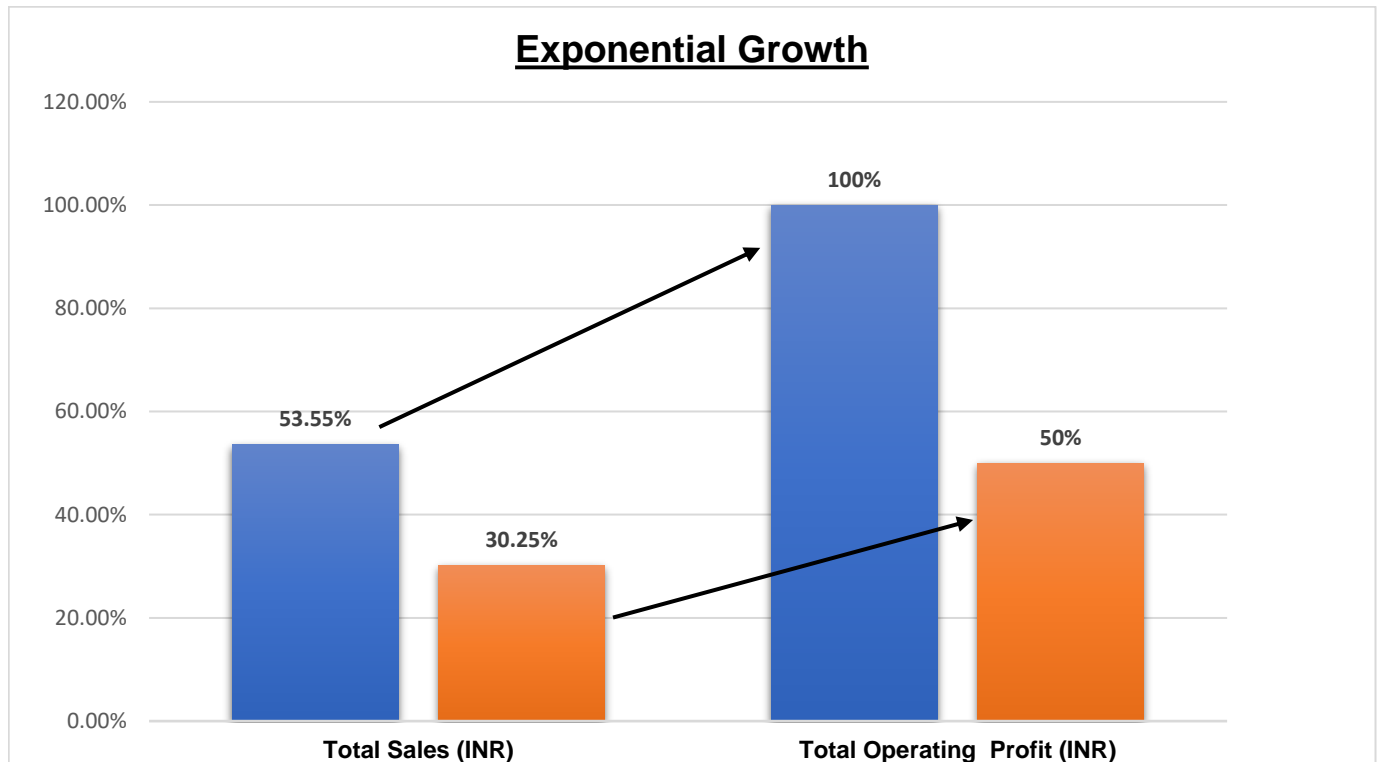
$$\text{Operational Profit} = \left( \frac{\text{Operating profit current year}}{\text{Operating profit previous year}} \right) - 1$$

**For 2023**

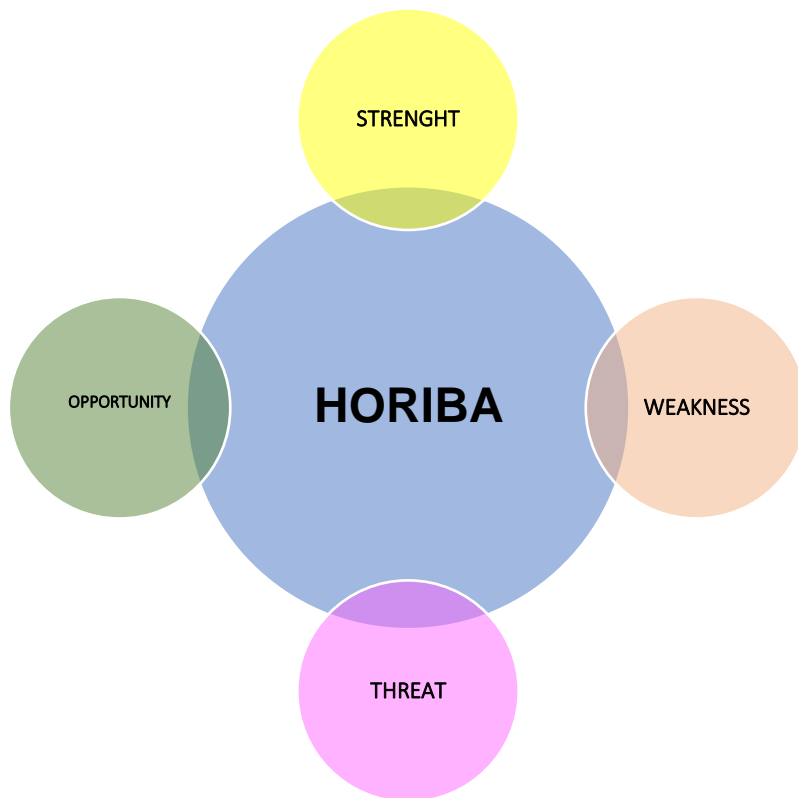
$$OP = \left( \frac{0.909}{0.455} \right) - 1 = 0.1 = 10\%$$

**For 2024 (Forecasted)**

$$OP = \left( \frac{1.36}{0.909} \right) - 1 = 0.50 = 50\%$$



## SWOT ANALYSIS



### STRENGTHS

- Comprehensive product range
- Strong R&D and innovation capacity
- Established brand presence and market reputation
- Products that adhere to stringent quality standards, ensuring reliability and accuracy in diagnostics.
- Excellent customer service and support, including training and technical assistance.
- Extensive distribution network ensuring widespread availability of products.
- Strong track record of compliance with international regulatory standards.
- Reduction in import costs and penetration in the market supporting the “Make in India” initiative.

## **WEAKNESS**

- Pricing pressures, especially in government and bulk purchasing contracts.
- Fewer options in automation for mid-sized laboratories compared to competitors.
- Dependence on specific markets and customer segments which can limit diversification.
- Some advanced diagnostic equipment may require specialized maintenance and support.
- Challenges in quickly adapting to rapidly changing market trends and technological advancements.

## **OPPORTUNITY**

- Increasing prevalence of chronic diseases and aging populations driving demand for diagnostic tests.
- Growth opportunities in emerging markets with expanding healthcare infrastructure.
- Integration of digital health technologies and telemedicine enhancing diagnostic capabilities and reach.
- Opportunities arising from government programs aimed at improving healthcare access and quality.
  - ✓ Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (PMJAY)
  - ✓ National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM).
  - ✓ Make in India and Atmanirbhar Bharat (Self-Reliant India) active participant
  - ✓ Digital India Initiative-e-Health.

## **THEATS**

- Regulatory compliance complexities
- Fierce competition from both established players and new entrants in the IVD market.
- Economic instability affecting healthcare budgets
- Vulnerability to disruptions in the supply chain affecting product availability and delivery timelines.



## **Strategic initiatives taken to drive the growth and current market position of HORIBA India**

### **Expansion of Sales and Market Penetration:**

- Attained notable sales benchmarks, with Q1(quarter-1) revenue of 665 million INR (108% YTD).
- Reason being the strong performance in reagent sales and diverse instrument sales across various models.

### **Development of Regional Businesses:**

- Gaining traction in local markets using tailored strategies.
- Installation and collaboration with hospitals like – ESIC Bikaner and Medanta.

### **Lab Chain and Engagement with the Government Sector:**

- Achieved significant sales in government and lab chain sectors, gaining important installations and breaking into new markets.

### **Product Launches and Innovation:**

- Launch of new goods such as the Yumizen H60
- Emphasis on ongoing innovation & development, including design and preparedness for 3D printing.

### **Training and Technical Support:**

- Comprehensive training sessions for application and technical teams to ensure high-quality support and customer satisfaction.
- Ongoing customer training programs and technical support initiatives not only for customer representatives, but also for entire customer technical team leaving no communication gaps, which is amplifying their success with customers.
- The HITI (HORIBA India Technical Institute) which aims to augment the IVD Industry and laboratory practice by providing their specialized professional courses for students to learn state-of-art technologies, advanced automated analyzers and Quality Management Systems (QMS).



### **HORIBA INDIA TECHNICAL INSTITUTE**

- HORIBA HEZ – the HORIBA Experience Zone, offering two level training courses for basic operations to expert operations. Provision of hands-on training to professionals and demonstrating medical instruments.



### **HORIBA EXPERIENCE ZONE**

## **Branding and Promotional Events**

- Organized promotional events and technical discussions to enhance market presence.  
**HORIBA DKS** which is **Digital Knowledge Sessions**, from virtual sessions, online webinars to Digital workshops, HORIBA connects the research world on the topics that impacts today's world on life science, bio science, cell analysis and more.
- Increased brand visibility through active social media engagement and print media advertisements.

## **Compliance and Quality Assurance:**

- Maintained strong compliance with international regulatory standards.
- Conducted quality verification studies and EQAS (External quality Assessment Services) evaluations to ensure product reliability.

## **Focused Government Program Participation:**

- Actively participated in government programs such as Ayushman Bharat, National Health Missions, and Digital India Initiative, aligning with initiatives like "Make in India" and "Atmanirbhar Bharat."

## **The key factors influencing HORIBA India's future prospects in the Indian healthcare market**

### **Product Innovation and Technological Advancement**

**Influence:** Keeping a competitive edge requires constant innovation in diagnostic tools and technologies.

**Specification:** HORIBA India's commitment to R&D guarantees the launch of innovative solutions that satisfy the changing requirements of healthcare professionals. Maintaining technological leadership can have a big impact on consumer preferences and market share. HORIBA new Yumizen ranges are testimonial for it.



**Yumizen 500**



**Yumizen 550**

**Yumizen 500-** being ideal for small mid-size laboratories is a cost-effective hematology solution. Capable of full 6-different diagnosis total platelet count, mean platelet volume (MPV), platelet crit (PCT), platelet distribution width (PDW), platelet large cell count (P-LCC), platelet large cell ratio (P-LCR).

**Yumizen 550-** The auto-sampling system, specializing in continuous loading, automatic sample mixing and a manual mode for STAT (Short turnaround time) samples and positive sample identification. Compatible with both HL7(Health Level seven) and ATSM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).

### **Governmental Health Programs:**

**Influence:** Taking part in government projects and programs may lead to the opening of new business opportunities.

**Specification:** Programs like Digital India Initiative and Ayushman Bharat support digital health solutions and universal access to healthcare. By collaborating with the public sector, HORIBA's alignment with these projects can improve its market presence and spur growth.

### **Market Growth in Developing Areas:**

**Influence:** Growing into developing and underserved markets can increase revenue and market share.

**Specification:** Challenging tier-2 and tier-3 cities can yield substantial growth prospects due to the expanding healthcare infrastructure in these areas. In these markets, building a robust distribution network and providing localized support will be essential.

### **Growing Need for Preventive Medical Care:**

**Influence:** The need for diagnostic tools and reagents is being driven by the move toward preventative healthcare and routine diagnostics.

**Specification:** There is a growing demand for precise and dependable diagnostic tests as public awareness of preventative health measures rise. Because of its wide range of products, HORIBA is well-positioned to benefit from this trend.

### **Norms for Quality and Regulatory Compliance:**

**Influence:** Market trust and dependability are increased by upholding strict quality and regulatory requirements.

**Specification:** HORIBA's reputation for quality and compliance is improved by making sure all goods adhere to worldwide regulatory standards. Customers may find this to be crucial when selecting diagnostic tools and reagents.

### **Leveraging Collaborations and Partnerships:**

**Influence:** Forming strategic alliances with domestic and foreign healthcare providers can broaden the market and improve the range of products available.

**Specification:** Working together with medical centres, universities, and other healthcare groups can result in creative fixes and increased market accessibility. These collaborations can also help with knowledge sharing and cooperative marketing initiatives.

### **Adapting to Market Trends and Consumer Needs:**

**Influence:** Staying attuned to market trends and changing consumer preferences is crucial for staying relevant.

**Specification:** Regular market research and feedback collection help HORIBA adapt its strategies and product offerings to meet current demands. Understanding consumer needs and preferences can guide product development and marketing initiatives.



### **Strengthening Digital Footprint:**

**Influence:** Enhancing digital marketing and social media presence can improve brand visibility and customer engagement.

**Specifications:** Effective use of platforms like LinkedIn, Facebook, and Twitter for corporate communications.

updates, product information, and customer testimonials can strengthen HORIBA's brand and attract a wider audience. Digital campaigns and virtual events can also support sales and customer outreach. Like HORIBA SCIENTIFIC PANCHAYAT

# **External Factors (political, economic, social, technological, environmental and legal) impact on HORIBA India's growth**

## **PESTEL ANALYSIS**

### **POLITICAL FACTOR**

**HORIBA adherence:** to the Central Drugs Standard Control Organization (CDSCO) rules for healthcare-related analytical instruments and medicinal devices

Obtained licenses like: -

- ISO 9001:2015- a globally recognized standard for quality management,
- ISO 14001:2015 is the internationally recognized standard for environmental management systems (EMS), It provides a framework for organizations to design and implement an EMS, and continually improve their environmental performance,
- ISO 13485:2016- a quality management system in which a company must show that it can consistently deliver medical devices and related services that satisfy clients and relevant legal and regulatory criteria.
- CE (Conformité Européenne or European conformity)- according to (EU) 2017/745 (CE marking) a medical device certification to their products in the European market.

**Governmental Health Program:** Ayushman Bharat the MAKE IN INDIA initiative, HORIBA seeks to improve the quality and accessibility of healthcare. HORIBA's IVD products stand to benefit greatly from these prospects.

**Political Stability:** Healthcare spending and economic policy are influenced by political stability in India. While political unrest can cause market uncertainty, stable governance promotes stable market conditions.

### **ECONOMIC FACTOR**

**Economic Growth:** India's economic growth has an impact on healthcare spending. Higher economic growth is advantageous to the IVD sector since it drives up healthcare spending and investment in medical facilities.

Price, cost, and profitability are all impacted by currency swings because HORIBA India serves both local and international markets. Controlling currency risks is essential to financial stability.

The demand for diagnostic equipment is directly impacted by the amount of money provided for healthcare by the public and private sectors. Increased funding and infrastructure spending in the healthcare industry provide market opportunities.

**Consumer Purchasing Power:** The demand for and price of diagnostic tests and

healthcare services are influenced by the disposable income and purchasing power of the populace

## **SOCIAL FACTOR**

**Aging Population:** The need for diagnostic services and equipment is being fuelled by India's increasing incidence of chronic illnesses as a result of the country's aging population.

**Health Awareness:** As preventative healthcare practices and routine diagnostic testing are encouraged by heightened awareness of health and wellness, the market for IVD products is anticipated to expand.

**Urbanization:** Rapid urbanization has resulted in changing lifestyles and an increase in non-communicable diseases, necessitating the need of advanced diagnostic methods.

**Healthcare Accessibility:** The disparities in healthcare access between urban and rural areas emphasize the need for portable, reasonably priced diagnostic tools to reach underprivileged populations.

## **TECHNOLOGICAL FACTOR**

R&D and innovation:

**Advanced Diagnostic Technologies:** To create state-of-the-art diagnostic tools, HORIBA makes large R&D investments. These innovations include machine learning and artificial intelligence developments for predictive diagnoses.

Digital transformation is the process of enhancing the effectiveness and accessibility of healthcare services via the use of digital health technology including mobile-friendly customer application for mechanical breakdown support applications.

**Automation and Integration:** To increase precision, efficiency, and production, automated laboratory systems integrating many diagnostic procedures are being developed.

**Intellectual property:** Obtaining patents and trademarks is essential for safeguarding inventions and preserving a competitive edge in the marketplace.

**Partnerships & Cooperations:** working together to promote innovation and exchange technical developments with academic institutions and other healthcare organizations.

### **Impact of Climate Change:**

Risk management is the process of creating plans to lessen the hazards associated with climate change, such as resource scarcity and interruptions to supply chains.

Sustainable product development is the process of creating new, environmentally friendly products, such eco-friendly diagnostic tools.

## ENVIRONMENTAL FACTOR

**Green Manufacturing Practices:** In order to cut waste and lower its carbon impact, HORIBA uses environmentally friendly manufacturing techniques.

**Energy Efficiency:** Reducing energy consumption and environmental effect in production facilities by implementing energy-efficient technologies.

Effective waste management techniques are needed to handle the hazardous and non-hazardous waste that is produced during the manufacturing process.

Rules Regarding the Environment:

**Respect for Environmental Laws:** Following national and international environmental standards, such as ISO 14001:2015, to guarantee environmentally friendly operations for businesses.

Participating in CSR initiatives that prioritize community welfare and environmental preservation is known as corporate social responsibility, or CSR.

## LEGAL FACTOR

Regulatory Framework

**Healthcare Regulations:** Following the guidelines established by global organizations and regulatory bodies, such as the CDSCO in India, to guarantee the effectiveness and safety of products.

**Intellectual property rights:** To preserve inventions and keep market leadership, strong legal frameworks are used to protect intellectual property.

Product Liability:

**Legal Compliance:** Making sure that all goods abide by the law in order to protect businesses from liability and guarantee consumer safety.

Risk mitigation refers to the application of risk mitigation techniques to address possible legal concerns about the functionality and safety of products.

## **RESULT**

A comparison of HORIBA India's pre-COVID and post-COVID performance shows a notable increase in operating profit and overall sales. The overall sales Compound Annual Growth Rate (CAGR) increased significantly from -4.5% pre-COVID to 39.4% post-COVID. In a similar vein, operating profit increased significantly after COVID, rising from -6.8% to 70.7%.

With an operating profit growth rate of 50% and a total sales growth rate of 30.25%, the growth rate forecast for 2024 shows a sustained upward trend. These numbers show how the company's strategic initiatives and strong recovery have shaped its position in the market.

The SWOT analysis, which highlights HORIBA India's advantages in product innovation and market presence while also pointing out possible threats and possibilities in the changing healthcare sector, further supports these conclusions.

## **CONCLUSION**

In-depth examination of HORIBA India's recent transformation and strategic initiatives can be found in the dissertation "Resilience and Progression: Examining HORIBA India's Strategic Path". Based on solid financial results and well-thought-out market positioning, the study demonstrates the company's growth trajectory—particularly in the post-COVID period. A wide range of products, solid R&D skills, and a sizable market presence are among the company's key strengths. Additionally, the analysis recognizes obstacles including market competitiveness and pricing constraints.

Growing in the future will be aided by HORIBA India's proactive participation in government initiatives, as well as its emphasis on innovation and quality assurance. The significance of external elements in influencing the company's operations, such as economic conditions and regulatory compliance, is highlighted by the PESTEL study.

In summary, the results indicate that HORIBA India is in a favourable position to leverage nascent prospects in the healthcare domain, given its sustained innovation and flexibility in response to market developments and regulatory mandates.

## Upasana D

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