



# **CORPORATE INDIA RISK INDEX**

2023

Intelligence partner

FROST & SULLIVAN

## **COUNTRY REPORT 2023**



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# Preface

Corporate India Risk Index is primarily an academic exercise to understand the level of risk that companies are facing and assist in developing a successful risk aversion plan, CIRI is a first-of-its-kind risk measurement tool to gauge the level of a company's risk exposure and preparedness.

This Corporate risk comprises various aspects of the business—spanning customer, competition, regulatory environment, business operations, technology finances, environmental factors etc. The impact of unprecedented events is significantly higher now.

This Index is a comprehensive framework that draws upon global risk management best practices and comprises of 32 risk elements across 6 broad dimensions. The Risk Index is based on the principles of Lean and Six Sigma that qualify business processes by measuring effectiveness and efficiency.

ICICI Lombard's Corporate India Risk Index provides a crucial tool for assessing and addressing risks, fostering resilience and adaptability in the ever-evolving global landscape. In the current climate of increasing macroeconomic uncertainties, it is essential for corporates to prioritize robust risk management. We believe that a proactive approach to risk management not only fortifies individual businesses but also contributes significantly to India's overall economic growth and stability.

## Foreword



**Mr. Sanjeev Mantri**  
MD & CEO  
ICICI Lombard GIC Ltd.

With great pride, we announce the 4<sup>th</sup> edition of the ICICI Lombard Corporate India Risk Index 2023 report, a milestone not only for us but for the entire field of risk management in India. What began as an academic exercise with our partners Frost & Sullivan 4 years ago, has now become an industry standard for measuring a company's exposure to risk. Leveraging our extensive risk management expertise, we remain committed to encouraging a proactive and a socially responsible approach to development.

This report, a comprehensive measure of effectiveness and efficiency across every aspect of business, from customer management to handling competition, has grown into an excellent indicator of the evolving risk landscape in India. Although global events, financial instability, and economic headwinds have challenged several industries, modern risk management solutions accounting for unprecedented events have enabled many to bounce back. As the first of its kind, the CIRI reports have become an invaluable asset for risk managers looking to adopt the best practices to achieve optimal scores and perfect balance in 'risk management.'

What's interesting about this comprehensive analysis of every key sector in India ranging from aerospace to education, energy, banking, hospitality, logistics, and healthcare, is that you get a closer look at each sector's unique set of challenges. Increased investment, deployment of the 5G spectrum, expanding network capacity and significant increase in the workforce enabled Telecom and Communications to be the most rewarding sector in 2023.

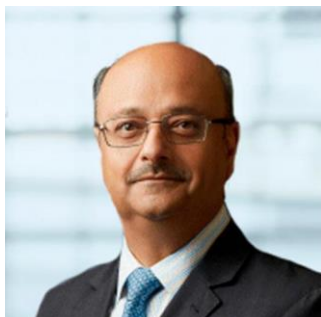
Cyber-attack or data breach is considered to be one of the most critical risks faced today. The BFSI sector endeavored to overcome the same by adopting data security measures including database encryption, stricter controls across levels and application of data leakage prevention tools. The Healthcare sector focused on digital solutions like telemedicine and AI-powered diagnostics to combat persistent manpower shortages and lingering issues with global supply chains. Another good example is the Agricultural & Food Processing sector which despite being the most vulnerable to climate change, surprised everyone by embracing technological solutions like precision farming, vertical farming, hydroponics, aquaponics, and farm-to-fork initiatives.

If a word should be associated with risk it should be '**resilience**,' as demonstrated by India's risk landscape this year, which despite geopolitical tensions, extreme weather events, and constant inflation, achieved a score that represents optimal risk handling with room for improvement.

As an emerging economic superpower, India is witnessing technological disruption on an unprecedented scale, across industries. From electric vehicles to artificial intelligence integration, block chain economies, 5G networks, and virtual versions of practically everything, the risk landscape has grown exponentially, highlighting the need for modern risk management solutions and practices. As technology continues to evolve exponentially, so will the risks, and as we thank you for being a part of this incredible journey, we promise to be right here next year, dissecting and analyzing those risks as they evolve.



## Foreword



**Mr. Aroop Zutshi**  
Global President &  
Managing Partner  
Frost & Sullivan

The ICICI Lombard Corporate India Risk Index 2023 Report provides a comprehensive analysis of India's key sectors, highlighting the nation's resilience, innovation, and strategic advancements in 2023. The report delves into the transformative journey of various industries, including aerospace & defense, agriculture, banking & finance, biotech & life sciences, education & skill development, energy, FMCG, healthcare, infrastructure & realty, tourism & hospitality, and transportation & logistics.

In today's rapidly evolving business landscape, understanding and managing risks is crucial for sustainable growth & resilience. The Corporate India Risk Index (CIRI) report, developed by ICICI Lombard and Frost & Sullivan, offers insights into the risk exposure & management practices of companies across various sectors in India. The report's findings are particularly showcasing a nuanced understanding of risk dynamics amidst global headwinds.

Despite challenges, the overall risk landscape in India has demonstrated resilience, with a slight improvement in the optimized risk handling score. The risk index score of 64 for India in 2023, is a marginal increase from 2022. Contributing to this are key sectors have emerged as exemplars in risk management, setting benchmarks for others to emulate. While the risk exposure has not changed much, there has been an almost uniform enhancement in risk management across sectors – in some cases, bordering on over-investment. However, it's essential to recognize the evolving nature of risks, with certain sectors facing unique challenges.

The BFSI sector has made commendable strides in bolstering cybersecurity measures, yet remains susceptible to global economic volatility. Noteworthy is the remarkable improvement witnessed in sectors like Manufacturing, Metals & Mining, and the New Age sector, underscoring their resilience. Companies across sectors have experienced risks related to reputation and sustainability adherence. Disruptive technologies like AI, Block chain, 5G and IoT are reshaping business models and offering new avenues for innovation and growth across sectors – the risks around these are still nascent and risk management is evolving. The “Make in India” initiative drove significant changes in supply chain operations – the strategic shift towards domestic production is enhancing resilience and competitiveness across industries.

As we delve into the insights provided by the CIRI report, it is my hope that stakeholders will leverage this knowledge to fortify their risk management frameworks and embrace opportunities for growth amidst uncertainty. I extend my gratitude to ICICI Lombard and Frost and Sullivan for their dedication to shedding light on this critical aspect of corporate resilience.

## Executive Summary

CIRI is a first-of-its-kind risk measurement tool to gauge the level of a company's risk exposure and preparedness. A higher score signifies more effective risk management, enabling companies to adopt appropriate risk management practices for the risks they are exposed to.

ICICI Lombard's 4th edition of Corporate India Risk Index showed a slight improvement despite the global headwinds related to inflation, geo-political tensions, and slowed global economic activities. However, in India the economic activities kept up the pace and registered a 'Corporate India Risk Index 2023' score of 64, representing "optimized risk handling" with a scope of further improvement. These findings are a part of the fourth edition of ICICI Lombard's Corporate India Risk Index (CIRI). The company has released the study in continued collaboration with Frost and Sullivan, a leading global management consulting firm.

### Key Stats

Optimized Risk Index Score increased from 2022 due to improvement in risk management, and the risk exposure score remained consistent compared to 2022.

Key Factors Comparison	2023	2022
Corporate India Risk Index	64	63
Corporate India Risk Management	67	66
Corporate India Risk Exposure	64	64

The findings of the 2023 edition of the Risk Index show that nine sectors secured 'Superior Risk Index' amongst all 20 sectors, indicating superior risk handling and management. These sectors include Telecom & Communication, Pharmaceuticals, Healthcare Delivery, Automotive & ancillary, Manufacturing, FMCG, Media & Gaming, New Age & Start-up and Tourism & Hospitality.

The BFSI sector was at the border of 'Optimized Risk' Handling / management, showcasing an improvement in cybersecurity measures and fraud detection systems to address the issues of data privacy and financial fraud. The sector was impacted by the global economic volatility which further impacted industries reliant on exports thereby impacting borrowers' ability to repay the loans.

The maximum improvement in risk index score was witnessed in Manufacturing, Metals & Mining and New Age sectors. Despite geopolitical tensions, persistent inflation, and turbulent demand, the Manufacturing sector showed resilience and bounced back due to growing investments, government initiatives like Make in India and rising production rates. However, sectors like FMCG and Biotech & Lifesciences had a downgrade in the index score compared to 2022 due to dynamic consumer demand, operational risks and geopolitical events.



- **Regulatory Risks:** Regulatory risk is the risk of changes in regulations and laws that might affect an industry or business. The regulatory changes can pertain to tariffs and trade policies, business laws pertaining to employment, minimum wage laws, financial regulation, Foreign Direct Investment etc.
- **Foreign Exchange Risk:** The exchange rate plays an important role for firms who export goods and import raw materials. The fluctuations in foreign exchange will have great impacts on the prices of traded goods. For example, if the currency depreciates (devaluation), the exporting firms will benefit. However, the firms importing raw materials will face higher costs on imports. The firms need to hedge their exposure to foreign exchange risks to insulate themselves from the impact of forex changes.
- **Geo-political Tension:** Geopolitical risk means the political and economic risks that are a potential threat to the financial and operational stability of companies.
- **Competitive risk:** Competitive risk is the risk associated with the fact that there are multiple companies competing in the market, each seeking to obtain the highest position and consumer ratings, to gain maximum benefits for themselves. The companies devise different strategies to garner a higher market share and acquire customers from competitors. Any failure in managing the competitive stand could lead to losses in business, thereby making marketing and competition a major risk in the market.



## Technology Risk

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Technology risks are also identified as information technology related risks that may arise due to failure of any installed hardware or software system, spam, viruses or any malicious attack. Also delay/over/under adoption of trending disruptive technologies can lead to technology related risks. We have classified the risks in below mentioned categories.

- **Innovation Risk / Obsolete Technology:** Innovation is the key to success in all the industries. Risk of redundancy and losing out to competition on account of poor R&D is a major concern.
- **Intellectual Property risk:** Dependence on trade secrets and unpatented proprietary know-how.
- **Disruptive Technologies:** These will fundamentally alter the financial prospects of the industry.
- **Data Compromise:** Hardware failure refers to malfunctions within the electronic circuits or electromechanical components (disks, tapes) of a computer system; Software failure refers to an operating system crash. Such failures lead to the stoppage of entire computer or operating systems creating substantial losses to business.



## Operational and Physical Risk

### Operational & Physical Risk

Risk of losses caused due to faulty or failed processes, systems or human resource related inefficiencies are classified as operational and physical risks. We have classified Operational & Physical risks in below mentioned categories.

- **Critical Infrastructure Failure / Machine Breakdown:** Industries with a heavy dependence on machinery consider any rise in machinery breakdowns a hindrance to their business operations. An untimely equipment breakdown can bring businesses to a standstill or be the root cause of fires and explosions. Mostly, human errors and deferred maintenance are the major reasons for such breakdowns. The companies should actively invest in the timely maintenance of all machineries.
- **Business Continuity / Sustainability:** Non adoption of Business Continuity/ Sustainability Plans and Lack of Internal Control tools would result in: Failure of businesses, Brand Equity / Loss of reputation, Financial Loss, Business model Failure, Ineffective engagement/communication with stakeholders, Losses in productivity, Lack of opportunity monitoring.
- **Supply chain risk:** Raw Material unavailability and Heavy Dependence on Global Supply Chains / Supplier concentration risk. Unavailability of raw materials owing to disruption in the supply chain or heavy dependency on one source (company/country) which is unable to supply owing to some geo- political tensions, fires, or any other incidents. Transportation is one of the key activities for companies making it an important risk to mitigate. The loss of goods in transit and spillage is one of the major concerns as it accounts for a sizeable loss of revenue to companies.
- **Commodity Price Risk - Volatility in prices of raw materials:** The fluctuations in raw material prices create a margin pressure / top-line pressure in the scenario of rising input costs.
- **Portfolio Risk:** Loss of key customers, Customer concentration - Key customers accounting for a large share of revenue, Over-dependence on suppliers, Business Model Risk: Transformative changes in business model, Tail Risks: Ability to overcome or manage extreme worst-case scenarios.
- **Environmental Hazard Risk:** Any environmental hazard having the potential to affect the surrounding environment.
- **Workplace Accident:** Fire and Explosion Hazards, Containment Incidents and Workplace Injuries.
- **Human Resource:** Key person risk occurs when a business or business unit becomes heavily reliant on a key individual. Talent acquisition & retention - The companies require a highly skilled labor force for R&D as well as continuous production. Accessing skilled resources & expertise on an on-going basis is one of the major challenges; moreover, retention of trained staff is imperative. Labor shortages, Union Strikes & Industrial Actions, Employee health, safety & security.
- **Financial Risk:** Financial Reporting Risk: Material misstatement of Financial Statements, whether due to fraud or error. Interest rates and equity prices: Interest rate risk arising out of working capital borrowings at variable rates. Equity price fluctuations affect the Company's income or the value of its holdings of financial instruments. Liquidity Risk (Credit Risk / Receivables).



- **Breaches of law (local/ international):** Voluntary/ involuntary breaches of law can lead to costly lawsuits.



## Crime & Security Risk

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Cybersecurity risks relate to the loss of confidentiality, integrity, or availability of information, data, or information (or control) systems and reflect the potential adverse impacts to organizational operations. These attacks can cause major financial losses, reputational harm, and a loss of client trust. Regarding cybersecurity, the BFSI industry in India has several difficulties, including difficult-to-secure legacy systems, a shortage of qualified cybersecurity personnel, and the requirement for ongoing system and network monitoring. There is a significant investment in cybersecurity tools like network monitoring, endpoint security, access control, and threat intelligence. Many organizations are also implementing cutting-edge technology like artificial intelligence and machine learning to strengthen their security posture.

We have classified Crime & Security risks in below mentioned categories.

- **Cyber Crimes:** Data Theft, Spam, scams and phishing, Hacking, Malware and Viruses, Piracy, Fraud, Corruption, Malicious attacks
- **Counterfeiting:** Counterfeiting of goods/services leads to loss of revenue & profits and ultimately affects the brand equity
- Threat to Women's Security
- **Terrorism:** Un-lawful use of violence and intimidation, especially against civilians, in the pursuit of political aims.



## Natural Hazard Risk

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A natural hazard is the threat of an event that will likely have a negative impact. A natural disaster is the negative impact following an actual occurrence of a natural hazard if it significantly harms a community. Due to India's geographical structure, it is one of the most disaster-prone countries in the world. Natural hazards like floods, earthquakes, landslides, and cyclones are common risks faced by India. The situation has worsened due to the rise in GHG emissions, loss of biodiversity, deforestation, and degradation of the environment. Such natural disasters hamper the day-to-day operations of corporates, and it is important for them to understand that such risks cannot go unheeded. Over the years, Indian corporates have learnt to mitigate such risks by diversifying their supply chains, having multiple logistics partners, diversified geographical presence and multiple vendors.

- **Pandemic and other global epidemic diseases:** Risk to business owing to disruptions caused by the COVID-19 pandemic and other similar global epidemics.



## Strategic Risk

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Strategic risk is the risk that failed business decisions may pose to a company. Strategic risk is often a major factor in determining a company's worth, particularly observable if the company experiences a sharp decline in a short period of time. Several factors, such as unethical or unlawful activities, poor customer service, product recalls, data breaches, or unfavorable media coverage, can lead to strategic risk. An organization's reputation can be severely harmed by a single negative incident, such as a high-profile data breach or fraud scandal, resulting in a loss of clients, income, and market share.

- **Resource scarcity / improper utilization / Overall Utilization:** Difficulties in the acquisition of land, water, fuel, or other resources for operations of business.
- **Public Sentiment:** Current events playing out in the public scene can change public sentiment.
- **Delay in execution of projects:** Delays in execution of projects can surge in the capex.
- **Increased number of recalls and quality audits:** Impacts both the brand equity and increased operational expenses.
- **Failed / Hostile Mergers & Acquisitions:** High dependence on inorganic growth.

# Bottom-Up Risk Assessment Approach

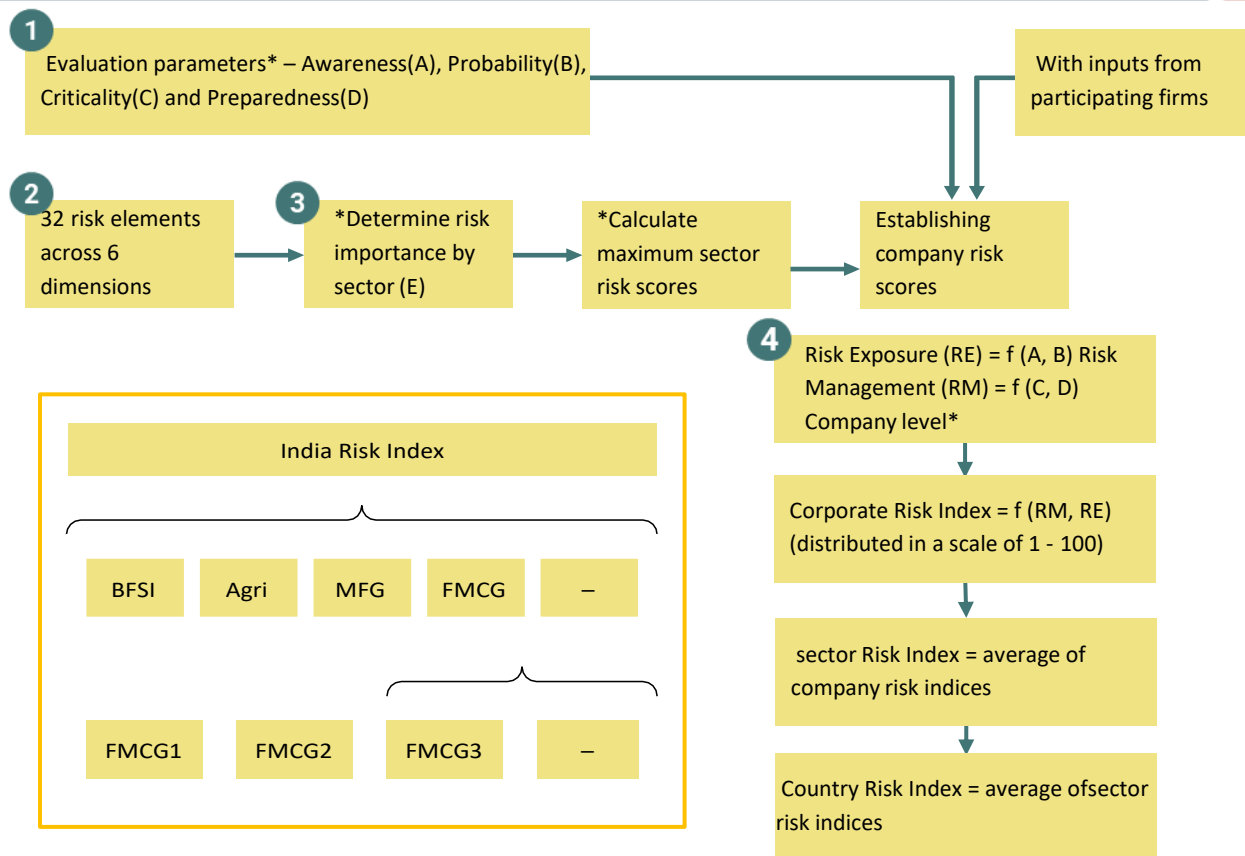


Figure 1: Risk Assessment Approach

- 1. Evaluation Parameters\*:** The index maps the risks faced by any enterprise on the basis of Awareness, Probability, Criticality and Preparedness against the defined Risk elements. The evaluation Parameters are defined as:
  - Awareness - Level of awareness of potential risk affecting the firm.
  - Probability - The likelihood of risk to affect the business goals of the firm adversely.
  - Criticality - Level of impact of the identified risk on the success of business goals.
  - Preparedness - Risk handling practices/ mechanisms already in place to handle the risk.
- 2. Determining Risk Importance\*:** Importance/Impact of individual risk elements is established against individual sector based on the published corporate risk reports, in depth sector understanding by F&S team and SME's.
- 3. Calculating Maximum Sector Risk Score:** Weighted Sum of all risk elements based on their importance to the respective sector.
- 4. Company Level\*:** All the Risk Index scores for companies in a sector are averaged to represent the sector; and sectors average to India. Risk Exposure is defined as the function of corporate's Risk Awareness and Probability of risk occurrence. Risk Management is defined as the function of an enterprise risk preparedness and criticality risk impact assessment.

# Defining the Risk Scale

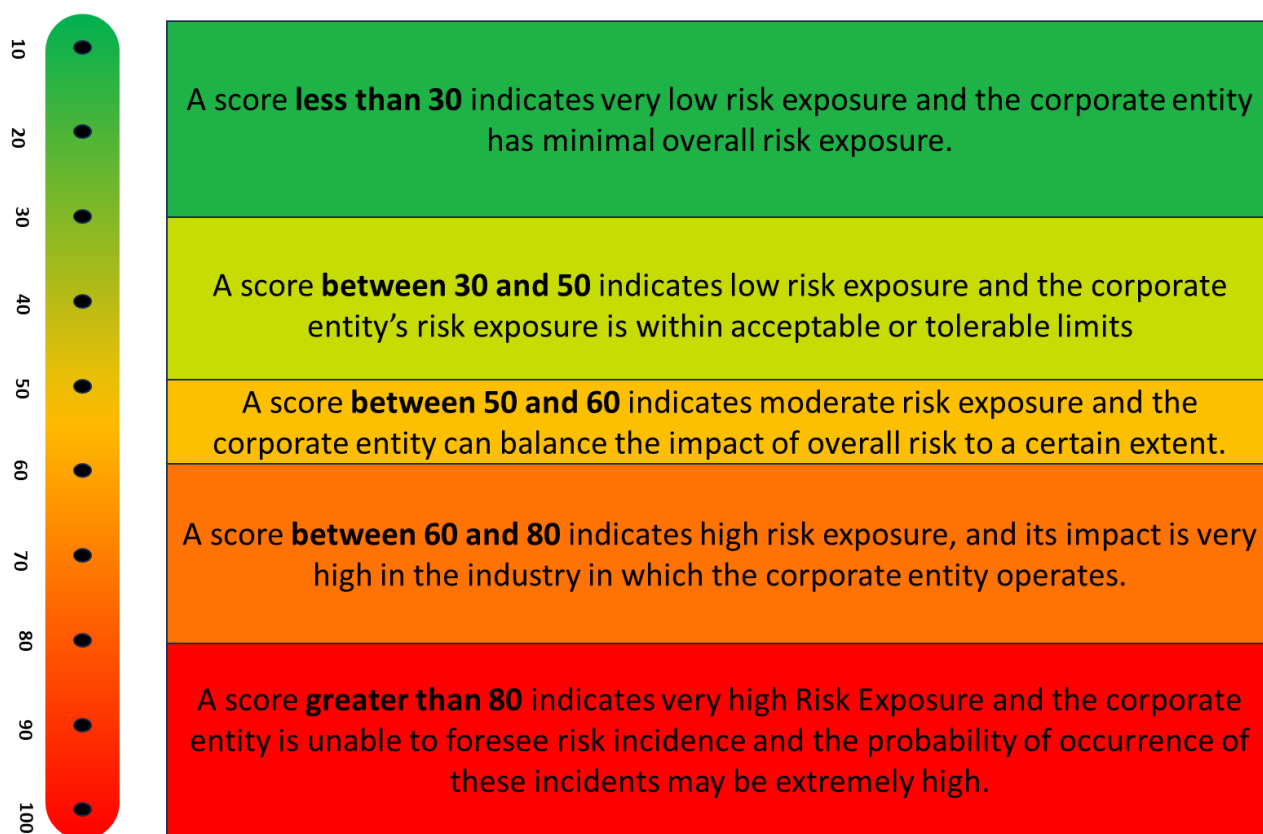
We have selected 20 sectors to understand the current stand of our country today in terms of risk. Risk for various sectors is measured on the risk exposure scale and risk management scale.

## A. ICICI Lombard Corporate Risk Exposure – Scale

**Risk Exposure:** The impact of any internal, external or strategic occurrence on the financial performance of an organization is defined as the corporate risk exposure.

Risk has traditionally been seen as something to be avoided – with the belief that if behavior is risky, it's not something a business should pursue. But the very nature of business is to take risks to attain growth. Risk can be a creator of value and can play a unique role in driving business performance.

Let's look at the risk exposure scale.

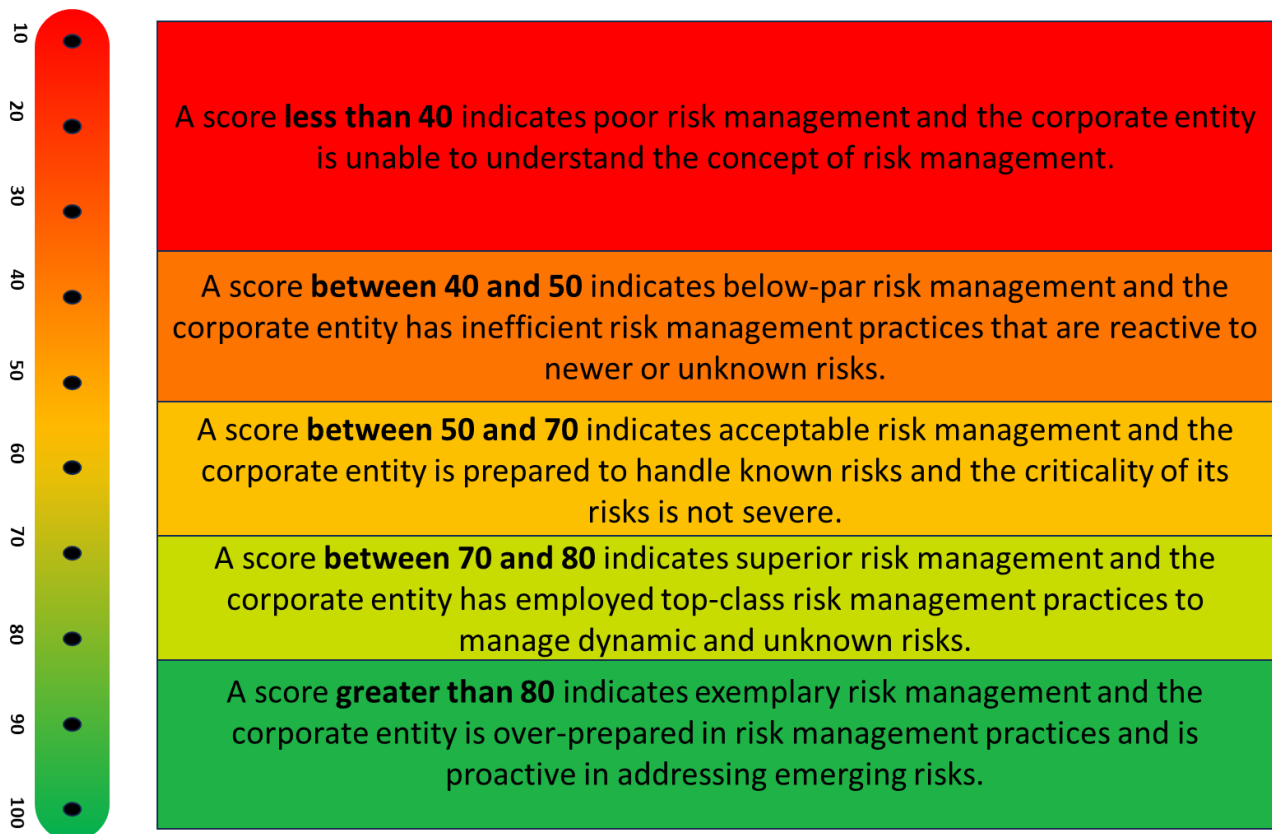


## B. ICICI Lombard Corporate Risk Management – Scale

**Risk Management:** Identification, Evaluation and Prioritization of corporate risks followed by well-coordinated steps to minimize the occurrence of uncertainties in the foreseeable future is defined as Corporate Risk Management.

The risk management scale works counter to the risk exposure scale.

Let's look at the risk management scale.

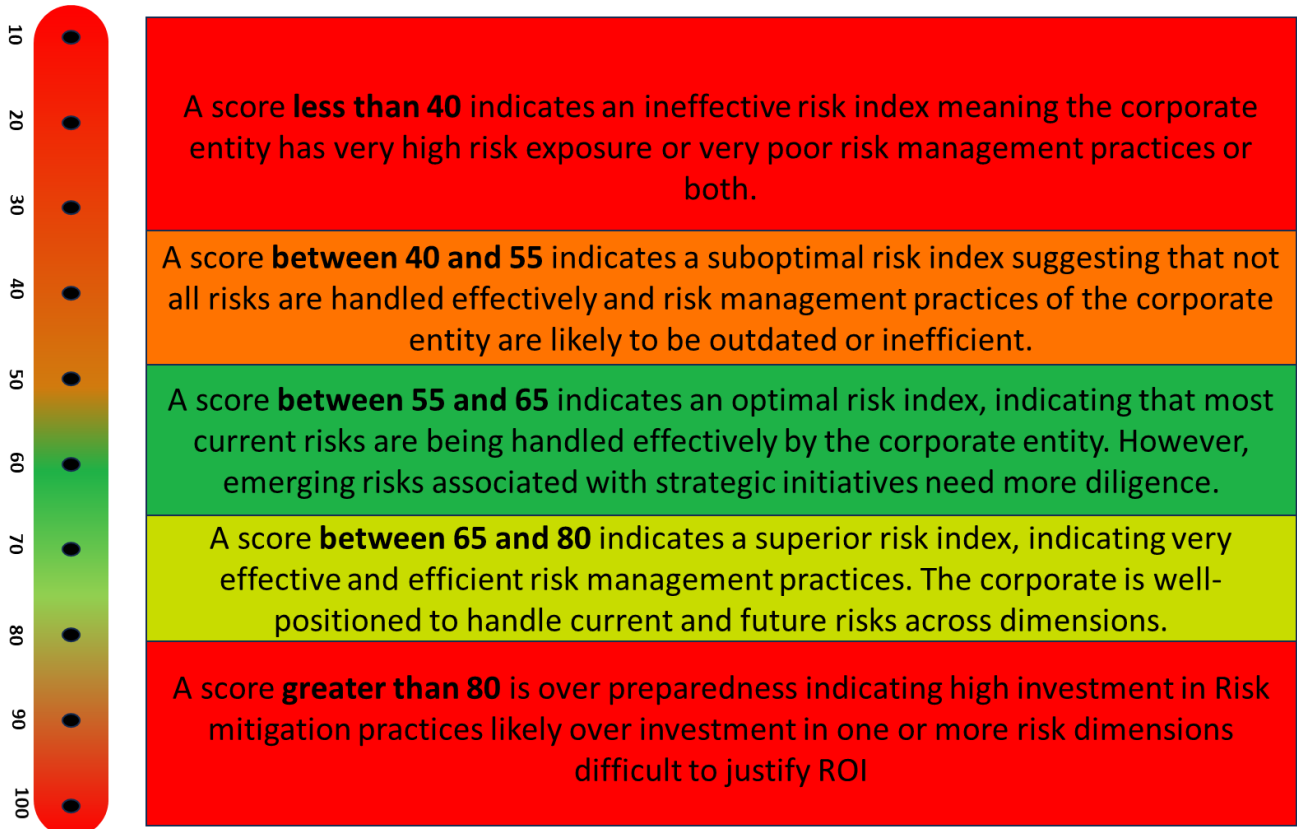




## C. ICICI Lombard Corporate Risk Index – Scale

**Risk Index:** Risk Index is a measurement tool to gauge the level of Risk Exposure against Risk Preparedness. The score intends to give Companies/Sector/Country access to an extensive and quantifiable metrics of risk management.

Let's look at the risk Index scale.



# India - Emerging Superpower with Optimized Corporate Risk Handling

In 2023, India witnessed a number of developments in various sectors, reflecting changes in consumer preferences, technological advances and regulatory trends. These developments shaped the industry and affected strategic decisions among industry players.

Electric vehicles (EVs) gained traction across end-user categories, driving investments in infrastructure and incentivized by government policies promoting electric mobility. The Automotive industry witnessed a surge in demand for EVs, while Logistics & Transportation embraced electric fleets to reduce carbon emissions and operational costs. Digital transformation accelerated across sectors, fueled by the COVID-19 pandemic. Telemedicine, online banking, and remote work solutions proliferated in Healthcare, BFSI, and IT/ITES sectors, enhancing operational efficiency and customer experiences.

In 2023, sustainability took center stage as sectors across India embraced eco-friendly practices. The Energy sector witnessed a shift towards renewable energy sources, with significant investments in solar and wind power. Industries like Manufacturing and FMCG prioritized energy efficiency and waste reduction initiatives. Hospitality and Real Estate sectors focused on green building practices, while Agriculture adopted precision farming techniques to conserve resources.

AI integration surged in 2023, revolutionizing business operations across sectors. Manufacturing companies leveraged AI for predictive maintenance and quality control, enhancing efficiency and reducing costs. Healthcare adopted AI-powered diagnostics and personalized treatment plans, improving patient care. Financial institutions utilized AI for fraud detection and risk assessment, bolstering security and compliance.

Social media emerged as a powerful tool for brand building and customer engagement in 2023. FMCG and Retail sectors capitalized on social media platforms to launch targeted marketing campaigns and drive product sales. Hospitality and Tourism industries utilized social media influencers to enhance brand visibility and customer loyalty. By leveraging social media analytics and customer feedback, companies across sectors tailored their strategies to effectively connect with their target audience and build brand reputation.

The "Make in India" initiative drove significant changes in supply chain operations in 2023. sectors like Automotive, Manufacturing, and Pharmaceuticals emphasized local sourcing to reduce dependency on imports. Companies diversified their supplier base and optimized logistics networks to mitigate supply chain risks. This strategic shift towards domestic production enhanced resilience and competitiveness across industries.

Diversity, Equity, and Inclusion (DE&I) initiatives gained momentum in 2023, fostering inclusive workplaces across sectors. Companies in BFSI and IT/ITES led the way with diversity training programs and gender-neutral policies. Healthcare organizations focused on addressing healthcare disparities among marginalized communities. Manufacturing and Retail sectors prioritized inclusive hiring practices to tap into diverse talent pools, driving innovation and employee engagement.

Leadership risks emerged as a critical concern in 2023, prompting sectors to reassess their leadership strategies. Companies in BFSI and Technology faced challenges in adapting to rapid technological advancements and changing market dynamics. Healthcare organizations navigated leadership transitions amidst the COVID-19 pandemic, emphasizing the need for agile and resilient leadership. Strategic investments in leadership development and succession planning became imperative to mitigate leadership risks effectively.

Disruptive technologies like artificial intelligence, block chain, 5G, and IoT reshaped traditional business models, offering new avenues for innovation and growth in sectors such as Telecom & Communication, Biotech & Life Sciences, and New Age Industries.

The scenario of the Indian economy in 2023 had a myriad of risks and opportunities in various sectors. Cybersecurity emerged as a pervasive risk, affecting industries from banking and finance to healthcare and IT/ITES. With more than 400 million cyber threats detected in nearly 8.5 million locations by 2023, organizations prioritized strong cybersecurity measures. Advanced threat detection systems, encryption protocols and employee training programs were implemented locally to enhance cyber resilience and protect sensitive data.

Another common risk was supply chain disruption, exacerbated by factors such as geopolitical pressures, natural disasters, and semiconductor chip shortages. To mitigate these risks, companies diversified their supplier base, invested in inventory management systems, and adopted agile supply chain practices to enhance resilience and flexibility.

Regulatory uncertainty was rife in industries such as Pharma, Energy and Telecommunications, which required active engagement with regulators. Furthermore, environmental risks emphasized the importance of sustainability and green technologies, renewable energy and waste management practices to reduce environmental impact around us and compliance with legal standards.

Despite the challenges posed by common risks, several sectors emerged as resilient performers in 2023, whose efforts helped us understand the situation in 2023 better. Noteworthy efforts included the "National COVID-19 Vaccination Drive" in healthcare, "Electric Vehicle Adoption Mission" in automotive, and "Green Freight Movement" in logistics. Additionally, initiatives such as the "Make in India Defence" program in aerospace and "Skill India Mission 2.0" in education underscored the nation's commitment to innovation and development.

The Automotive industry in India showed resilience in the face of supply chain disruption and regulatory uncertainty. Focusing on sustainability and innovation, the sector saw an increase in electric vehicle (EV) adoption, with sales reaching ₹4.22 lakh crores. The Aerospace & Defence sector focused on developing indigenous manufacturing capacity and technology to strengthen National Defence by investing ₹1.5 lakh crores.

In the Healthcare sector, India has invested heavily in digital health solutions and infrastructure to combat the lingering effects of the COVID-19 pandemic. With a total investment of more than Rs 50,000 crores, companies have expanded telemedicine and implemented AI-powered diagnostics to improve patient care.

The Manufacturing sector prioritized digitalization and process optimization to enhance productivity and competitiveness amidst supply chain disruptions and inflationary pressures. Companies invested Rs 1.2 lakh crores in automation technologies and smart manufacturing initiatives to streamline operations and reduce costs. The Logistics & Transportation companies invested Rs 800 crores in block chain-based traceability systems and cyber security protocols to secure supply chains and protect sensitive data from cyberattacks.

The Hospitality industry adapted to customer preferences and regulatory requirements through new service offerings and customer engagement strategies. With an investment of Rs 0.5 lakh crores, companies also focused on using contactless technology to improve health and safety measures, ensuring that guests have satisfaction and compliance.

The Agricultural & Food Processing sector embraced technological initiatives to increase agricultural productivity and ensure food security in the face of climate change and supply disruptions. With an investment of Rs 1 lakh crores, companies focused on precision farming and farm-to-fork traceability solutions to improve crop yield and quality.

The BFSI sector focused on digital transformation and risk management to address cyber threats and regulatory challenges. Banks and financial institutions invested Rs 2,50,000 crores to implement advanced cyber security measures and fraud detection systems to protect customer data and prevent financial fraud.

The Biotech & Life Sciences sector showcased innovation and resilience amidst regulatory complexities and supply chain disruptions. The Chemicals & Petrochemicals sector navigated environmental regulations and market volatility through sustainable practices and operational excellence initiatives. Digital learning and job training were adopted to meet workforce challenges and enhance productivity in the face of technological disruption and demographic changes in the Education & Skill Development sector.

The Energy sector has shifted towards renewable energy and sustainable development policies to mitigate the risks of climate change and reduce dependence on fossil fuels. Moreover, with investments of Rs 1.5 lakh crores in smart grid technologies and demand-side management initiatives to optimize energy consumption and reduce emissions, the sector prioritized grid modernization and energy efficiency.

The IT/ITES sector continued to drive digital transformation and innovation to address cybersecurity threats and meet evolving customer demands. With investments of Rs 4 lakh crores, companies focused on cloud computing and cybersecurity solutions to protect data and ensure business continuity.

The Metals & Mining sector focused on sustainable practices and community engagement to address environmental concerns and social risks associated with resource extraction. With investments of over Rs 0.8 lakh crores, companies implemented reclamation and rehabilitation projects to restore mined areas and promote biodiversity conservation.

The New Age sector, comprising startups and technology companies, showcased innovation and resilience amidst market uncertainties and funding challenges. Additionally, the sector prioritized talent acquisition and retention, with investments of Rs 0.5 lakh crores in employee benefits and workplace diversity initiatives to attract top talent and foster a culture of innovation.

The Telecommunication sector continued to expand connectivity and digital infrastructure to meet the growing demand for broadband services and IoT applications. With investments of over Rs 2 lakh crores, companies deployed 5G networks and fiber-optic cables to enhance network capacity and speed.

In summary, India's diverse sectors demonstrated resilience and innovation in navigating through a challenging operating environment in 2023. As India continues its journey towards economic prosperity, proactive risk management and innovation will remain critical drivers of success across diverse sectors.



# India Showcasing an Optimized Risk Handling



*Figure 2: Corporate India Risk Index 2023*

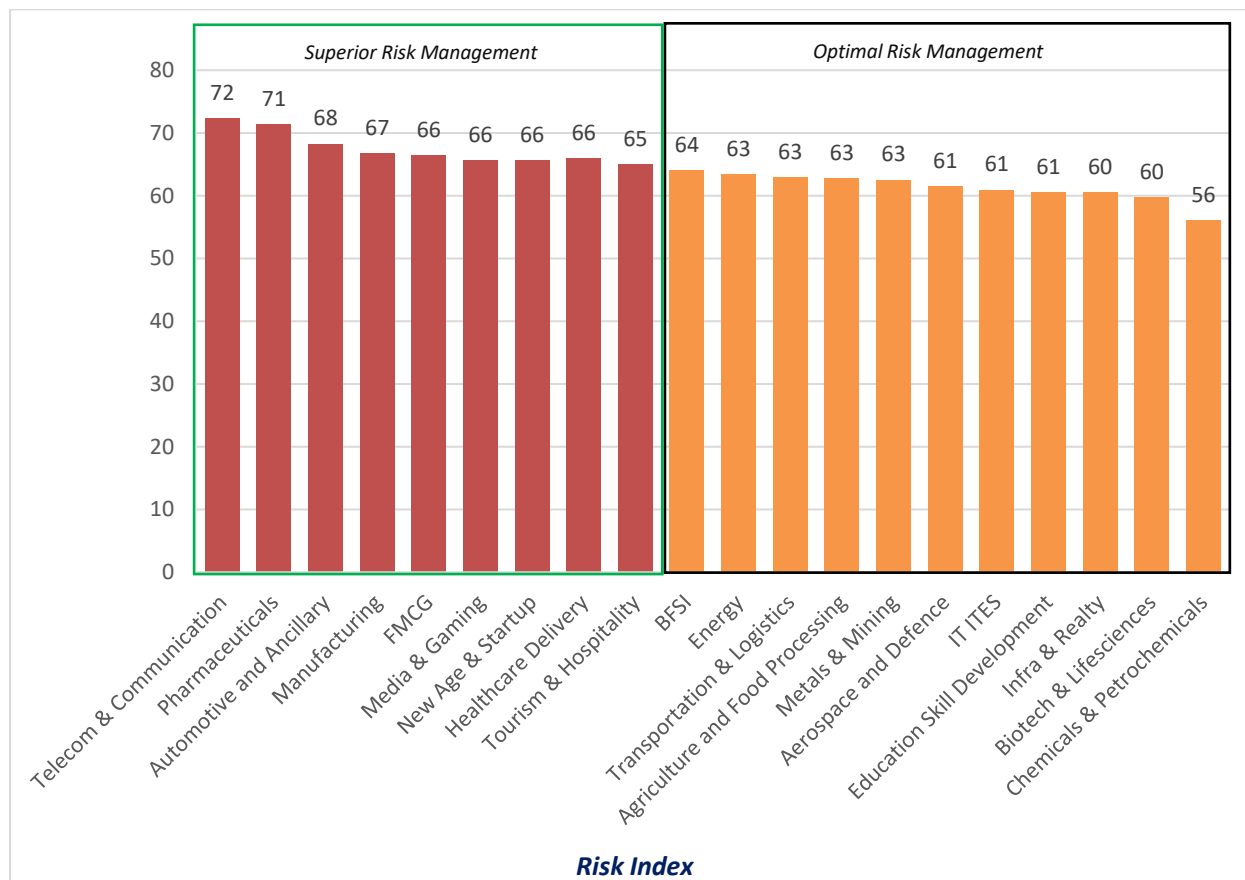
A score of 64 on the Corporate Risk Index indicates optimal handling of risk by Indian companies. However, to enter the superior risk handling territory, the Indian companies have scope to improve upon their risk management practices in the areas of crime & security risks and strategic risks. It was observed across sectors that there is an increased focus on cybersecurity and other technological risks.

In the sectorial analysis of risk exposure, it was found that companies were most affected by market & economy and operational & physical risks due to inflation, global volatility and geopolitical events like the Red Sea crisis, Israel Palestine conflict and Russia Ukraine War.

Another common risk was supply chain disruption, exacerbated by factors such as geopolitical pressures, natural disasters, and inflation. To mitigate these risks, companies diversified their supplier base, invested in inventory management systems, focused on localization and adopted agile supply chain practices to enhance resilience and flexibility.

It was observed that risk management is getting an increased focus in the growth strategy of every organization with companies having dedicated risk teams to manage their risk exposure. All the organizations fell either into 'Superior Risk Management' or 'Optimal Risk Management' category indicating good risk management practices.

Below is a broader categorization of sectors in terms of risk index:



**Figure 3: Corporate India Risk Index 2023 Sector Score**

### Superior Risk Index

Superior risk handling was found in 9 industrial sectors: Telecom & Communication, Pharmaceuticals, Healthcare Delivery, Automotive & Ancillary, Manufacturing, FMCG, Media & Gaming, New Age & Startups and Tourism & Hospitality.

### Optimal Risk Index

Optimal risk handling was found in 11 industrial sectors: BFSI, Energy, Transportation & Logistics, Agriculture & Food Processing, Metals & Mining, Aerospace & Defence, IT ITES, Education & Skill Development, Infrastructure & Realty, Biotech & Lifesciences and Chemicals & Petrochemicals.

# Sectorial Highlights







# AEROSPACE & DEFENCE



## Aerospace & Defence

The Indian Aerospace and Defence industry showcased robust growth and significant advancements throughout 2023, propelled by a combination of strategic initiatives, technological innovations, and collaborative partnerships. Market analysis revealed a burgeoning sector, with an estimated value of USD 24.61 billion in 2023 and a projected CAGR of 4.73% over the next six years, underscoring the industry's resilience and potential for expansion. Government spending, coupled with policy reforms such as the Make in India initiative and Defense Procurement Procedure (DPP) reforms, played a pivotal role in driving indigenous production and fostering a conducive environment for private sector participation.

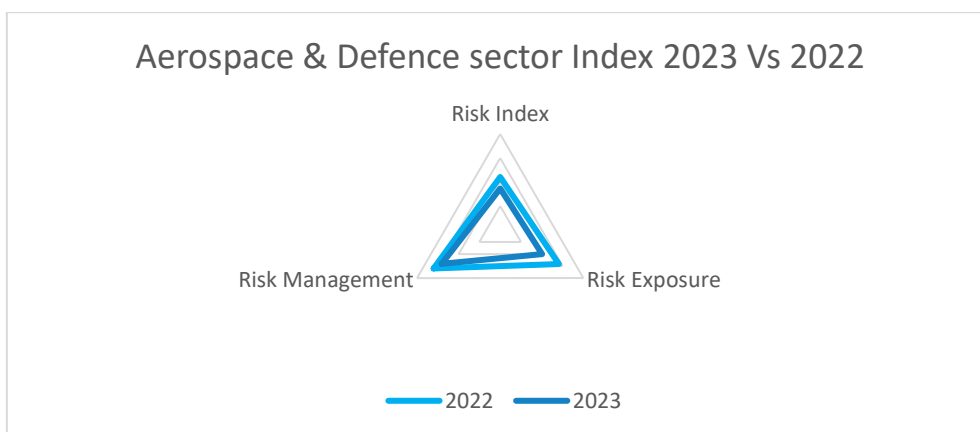
Technological advancements emerged as a key trend shaping the industry, with Industry 4.0 principles revolutionizing manufacturing processes and AI, block chain, and IoT technologies driving operational efficiencies and enhancing capabilities. India's pursuit of self-reliance through indigenous production was exemplified by initiatives like the Tejas fighter jet program, showcasing the nation's commitment to bolstering its Defence capabilities. Strategic collaborations and partnerships, both domestic and international, further bolstered the industry's capabilities, with landmark agreements such as the Rafale deal with France serving as a testament to successful collaborations.

However, the industry also faced a set of challenges that demanded careful navigation. Regulatory issues, technological gaps, budgetary constraints, and dependence on imports posed significant hurdles, highlighting the need for proactive measures to address these challenges. Despite these obstacles, opportunities abound on the horizon, driven by continued policy initiatives, emerging technologies such as AI driven simulations and quantum computing, and new market horizons in areas like cybersecurity and dual use applications.

Key events and developments in 2023 further underscored the industry's resilience and transformative journey. From the Rafale deal strengthening air defines capabilities to the rollout of the Tejas Mark 2 showcasing indigenous innovation, and from advancements in space technology by ISRO to the focus on cybersecurity and the strengthening of Indo US defines ties, the year was marked by significant milestones and strategic advancements.

Aerospace & Defence sector	Risk Index	Risk Exposure	Risk Management
2022	62	64	64
2023	61	62	64





**Figure 4: Aerospace & Defence Sector Comparative Analysis 2023 Vs 2022**

In 2023, the Aerospace & Defence sector witnessed a slight decrease in its Risk Index from 62 to 61. There was an associated decrease in the risk exposure of the sector reflecting a more stable and promising landscape. The industry's lower risk exposure can be attributed to several key factors. Despite geopolitical tensions and ongoing challenges, Defence spending continues to rise, bolstering the sector's resilience.

The aerospace market is showing signs of improvement, with increased demand and growth projections. Commercial aerospace is experiencing a rebound, marked by enhanced deliveries and improved financial performance. Although supply chain disruptions and business sales have posed challenges, the sector's overall recovery and growth outlook remain positive. These factors, coupled with a more optimistic market sentiment and strategic advancements, have contributed to the marginal decrease in Risk Exposure, indicating a more favorable operating environment for the Aerospace & Defence sector in 2023.

In conclusion, 2023 was a year of resilience, innovation, and strategic partnerships for the Indian aerospace and Defence sector. As the industry continues to navigate challenges and seize opportunities, its commitment to self-sufficiency, technological advancement, and global competitiveness remains steadfast, positioning India as a key player in the global Defence landscape.



# AGRICULTURE & FOOD PROCESSING



## Agriculture & Food Processing

India's Agricultural sector remains the cornerstone of the country's economy, employing about 54.6% of the total workforce and contributing 17.8% to Gross Value Added (GVA). Furthermore, the food processing industry, as the fifth-largest industry in India, adds value to farm output, creates employment opportunities, improves exports, and strengthens the domestic supply chain.

India's agricultural prowess lies in its diverse agricultural climate, enabling the country to boast the largest herd of cattle in the world, vast areas devoted to staple crops such as wheat, rice and cotton, and various agricultural commodities such as milk, corn, and spices. However, despite these strengths, the company faces various challenges that threaten its growth and development trajectory.

Inflationary pressures pose significant risks to agriculture, especially for staple foods. In December 2023, India experienced a retail inflation of 5.7%, compared to a 9.5% increase in food prices in the country. Such inflation strains household finances, reduces consumer spending power and affects sector profitability. The tariff system further compounds the woes of the sector, and direct taxes on agricultural inputs raise the cost of production and erode competitiveness.

Legal uncertainty, including changes in regulatory, tax and trade policies, also poses daunting challenges for agribusinesses. Furthermore, geopolitical risks arising from global crises can disrupt trade developments and threaten exports and supply chains. Dependencies on geopolitical factors for key inputs such as fertilizers and pesticides render the sector vulnerable to price fluctuations and supply disruptions.

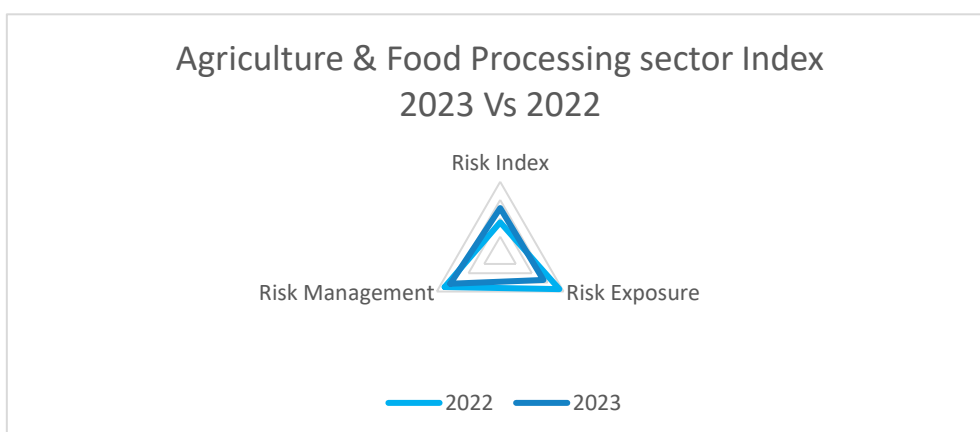
While technological advances offer opportunities for productivity and efficiency, the lack of technology and digital infrastructure widens the gap between large and small contractors within the sector. Operational challenges like accidents, supply chain waste and environmental hazards together further aggravate the vulnerability of the sector.

Despite these challenges, mitigation strategies can strengthen the resilience and sustainability of the Indian Agricultural sector. Diversification of crops and sources of income can reduce reliance on single commodities and mitigate risks associated with market volatility and climate variability. Additionally, investing in agricultural research, innovation, and climate-smart technologies can enhance productivity, resilience, and sustainability in the sector.

Policy support is essential to create an enabling environment for agricultural growth. The implementation of supportive policies and regulatory frameworks that address market distortions, facilitate financing and investment, and encourage sustainable practices can enhance firm resilience and they have been able to compete. Furthermore, developing risk management policies including insurance policies and early warning systems for natural disasters can help mitigate the impact of unexpected events on agricultural productivity and livelihoods.

Agriculture & Food Processing sector	Risk Index	Risk Exposure	Risk Management
2022	59	69	68
2023	63	64	66





**Figure 5: Agriculture & Food Processing Sector Comparative Analysis 2023 Vs 2022**

The Agriculture and Food Processing sector in India experienced a rise in the risk index from 59 in 2022 to 63 in 2023 due to various factors. The market and economy were impacted by inflation, exchange rates, and supply chain disruptions, leading to increased risks. However, the government's initiatives and policies were aimed at addressing these challenges and promoting sustainable growth in the sector. This led to a decrease in the risk exposure for the sector.

However, an area of improvement for the sector could be risk management, which remained stable from previous year. Enterprises can utilize technological advancements, such as analytics and modelling to improve risk management in operations.

Operational risks related to low productivity, high cost of agri-produce, and low unit economics affected the sector's competitiveness. risks, such as the need for a risk fund to mitigate stress in the Food Processing sector, remained unaddressed.

Strengthening farmer capacity-building measures such as training and extension services for farmers and farm cooperatives are essential for resilience and adaptability to changing market dynamics. Through established strategies in terms of implementation of mitigation and climate change and investment, India can unlock its full potential in agriculture.



AUTOMOTIVE &  
ANCILLARY





## Automotive & Ancillary

The Automotive sector in India demonstrated remarkable resilience and growth throughout 2023, solidifying its position as a key pillar of the economy. With ambitious targets to double its size to ₹15 lakh crores by the end of the year, the industry showcased a commitment to expansion and innovation. Contributing approximately 7.1% to the national GDP and providing direct and indirect employment to over 19 million people, the sector's significance in driving economic development cannot be overstated.

Market dynamics revealed a nuanced blend of market share dominance and export growth. Two-wheelers continued to dominate, commanding 77% of the market, followed by passenger cars at 18%, with small and midsize cars leading the segment. Notably, the export of automobiles surged by 35.9%, showcasing India's increasing presence in the global automotive landscape.

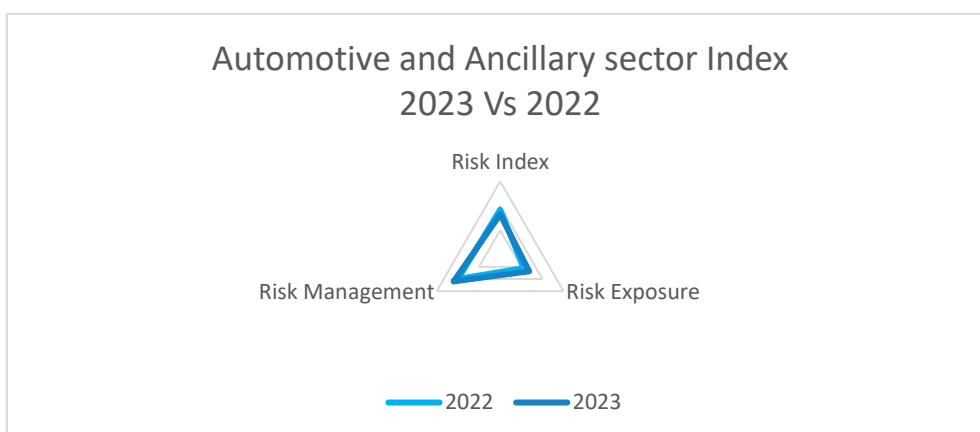
The influx of foreign direct investment (FDI), amounting to ₹2.8 Lakh crores, highlighted investor confidence and India's attractiveness as a manufacturing destination. These investments, constituting around 5.48% of the total FDI inflows, fueled the sector's growth trajectory and technological advancements, underscoring India's emergence as a preferred destination for high quality automotive components and vehicles.

India's global rankings in various automotive segments further emphasized its stature as a formidable player on the international stage. Ranking as the second largest in two wheelers, seventh largest in commercial vehicles, sixth largest in passenger vehicles, and the largest in tractors, India solidified its position as a key contributor to the global automotive value chain.

Foreign direct investment (FDI) continued to bolster the Indian Automotive sector, with 57 transactions amounting to ₹14,000 crores. These investments, spanning both vehicle manufacturing and component manufacturing sectors, injected capital and expertise into the industry, driving innovation and competitiveness on a global scale.

In the third quarter, the sector witnessed 16 deals totaling ₹7,800 crores, with a notable focus on growth opportunities in alternative fuel segments, particularly battery powered technology, reflecting responsiveness to evolving consumer preferences and environmental considerations. The fourth quarter remained robust, with 13 deals valued at ₹867 crores, showcasing strategic moves within the automotive supply chain to enhance capabilities and competitiveness.

Automotive & Ancillary sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	69	66	70
<b>2023</b>	68	67	71



**Figure 6: Automotive and Ancillary Sector Comparative Analysis 2023 Vs 2022**

The risk index for Indian Automotive and Ancillary sector has been slightly reduced from 69 in 2022 to 68 in 2023. This was attributed to an increase in risk exposure which was countered by an increase in risk management. The year saw a steady growth in the number of units sold.

The sector witnessed an increase in risk exposure, backed by regulatory changes, inflation and supply chain challenges due to geopolitical events. However, this was countered by effective risk management strategies which enabled the overall growth of the automotive industry. The implementation of the BNCAP, the focus on promoting EVs, and the PLI schemes for the Automotive sector created a more favorable and stable environment for the automotive industry, leading to higher growth potential.

Overall, the Indian Automotive sector's performance in 2023 underscored its resilience, growth trajectory, and transformative potential. With a keen focus on innovation, sustainability, and strategic partnerships, the industry is poised for continued growth and transformation in the years ahead, contributing significantly to the nation's economic prosperity and technological advancement.





| BFSI

## **BFSI**

In 2023, Indian banking and finance saw significant growth on the back of economic recovery and digital transformation programs. Total banking assets in the public sector stood at ₹138.38 lakh crores and private sector at ₹83.39 lakh crores. Subsidized public sector banks played a major role for ₹8.41 lakh crores in interest earnings, while private banks earned ₹5.74 lakh crores during the same period.

This year continued to focus on financial inclusion and support for micro, small and medium enterprises (MSMEs). Initiatives such as the Pradhan Mantri Jan Dhan Yojana facilitated over 486 crores beneficiaries to enroll in new bank accounts, increasing banking inclusion and access to financial services, and encouraging entrepreneurship. Moreover, credit schemes such as the Emergency Credit Line Guarantee Scheme (ECLGS) and the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) provided critical financial support to small businesses, fostering economic recovery and job creation.

However, amidst this growth, the banking industry faced many challenges, including managing non-performing assets (NPAs), complying with an evolving regulatory framework and systematic commercial banks (SCBs); total NPA declined from ₹9,33,779 crores to ₹5.7 lakh crores during FY18-19 to FY2022-23, reflecting improvement in asset quality management. Nevertheless, challenges persisted, thus requiring continued efforts to strengthen the sector's resilience.

One of the most important risks faced by the Banking sector in 2023 was inflation, economists predicted an average of 5.1% to 4.8% in FYs, above the Reserve Bank of India's medium-term targets, and focused on clearing buildings when needed.

The imposition of 20% Tax Collected at Source (TCS) on international remittances above ₹700,000 in a financial year and a 30% tax on income from transfers of crypto assets required banks to adjust on appropriately to navigate the evolving tax environment.

Geopolitical tensions, especially sanctions against Russia, have also affected the Banking sector, leading to market volatility and liquidity challenges. To mitigate geopolitical risks, banks have adopted strategies to ensure resilience to global uncertainty, diversify exposure and explore new business models.

Technological risks, especially cyber security threats, emerged as a major concern in 2023, with a significant increase in cyber-attacks targeting BFSI business units. Banks responded with cyber security measures like advanced trust-free system principles and continuous improvement of integrated security measures to protect customer data and maintain business operations.

BFSI sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	64	65	67
<b>2023</b>	64	64	67



**Figure 7: BFSI Sector Comparative Analysis 2023 Vs 2022**

The risk index for Indian BFSI sector has been consistent i.e. 64 in 2022 and 2023 as the Indian Banking sector has shown resilience and has been sufficiently capitalized and well-regulated, with financial and economic conditions that are comparatively better than expected.

The stability of the risk index for the Indian BFSI sector in 2023 can be attributed to the sector's resilience in managing known risks, the regulatory framework that promotes risk consciousness, and the ongoing efforts to enhance risk management practices in response to evolving market conditions and technological advancements. The sector had an increased investment in technological advancements to counter cyber security risks. These factors have collectively contributed to maintaining a consistent risk index within the BFSI sector.

In conclusion, 2023 was the year of transformation and strength in the Indian banking and financial sector. Despite the challenges, the companies showed agility and innovation to adapt to the ongoing market dynamics. By proactively managing risks and leveraging technological advances, the sector is well-positioned to support India's economic growth and financial inclusion objectives in the coming years.





# BIOTECH & LIFESCIENCES



## Biotech & Lifesciences

In 2023, India's Biotechnology and Lifesciences sector emerged as a key driver of the country's ambitious ₹5000 hundred crores economy target. Through government initiatives like Startup India and Make in India, India aimed to establish itself as a global hub for biotechnology and biotechnology. This strategic focus was highlighted by India's third position in Asia-Pacific and its presence in the top 12 countries globally for biotech, accounting for almost 3% of the world the entire biotech market. It exhibited impressive growth, with the Indian bio economy growing at double-digit year-on-year, by the end of FY23 to reach ₹137 hundred crores.

A notable feature in 2023 is the huge increase in private equity and investment in the biotechnology industry, reaching a staggering ₹93.88 crores, representing a 19% increase over the previous year. In biotech startups the number of registrations in India Increased, with registrations of 1391 start-ups, representing an increase of 23% over the previous year's levels. This growth highlighted the region's growing interest in the economy emphasis on entrepreneurship and entrepreneurship, and identified a vibrant ecosystem that supports innovation and growth.

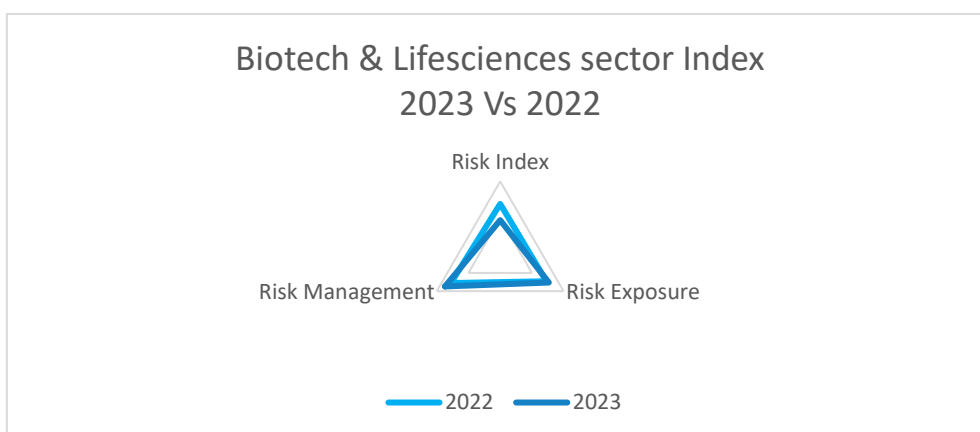
Moreover, India has made significant strides in biotechnology, especially in vaccine development. The introduction of various vaccines like ZyCoV-D, CORBEVAX and GEMCOVAC-19 demonstrated India's capability to address public health challenges through innovation. India's prowess in agricultural biotechnology and genetic engineering was highlighted, including improved chickpea varieties and crop resilience.

However, in the development of the project, some notable risks and challenges required mitigation strategies. Geopolitical tensions in the Red Sea region raised risks of disrupted supplies of vital drugs and medicines and affected the supply chain of Indian biotech companies. Additionally, the conflict between Russia and Ukraine disrupted exports, leading to challenges in trade payments and inflationary pressures within the sector. To address these challenges, initiatives such as diversifying supply chains, exploring alternative shipping routes, and enhancing collaboration with international partners were undertaken to mitigate risks and ensure continuity in operations.

Additionally, the industry faced operational and legal challenges including HR management issues, workplace security concerns and intellectual property conflicts. To mitigate these risks, efforts were made to enhance safety protocols, strengthen regulatory frameworks, and invest in talent development initiatives to address skill shortages and foster a conducive work environment.

Despite these challenges, the prospects for India's biotechnology and life sciences sector remained promising. The India Bio Economy Report 2023 showed sustainable growth, with emerging innovations such as gene editing, synthetic biology and personalized medicine driving the sector. Furthermore, strategic collaboration, investment in R&D and planning interventions aimed at encouraging innovation and entrepreneurship.

Biotech & Lifesciences sector	Risk Index	Risk Exposure	Risk Management
2022	62	62	63
2023	60	63	64



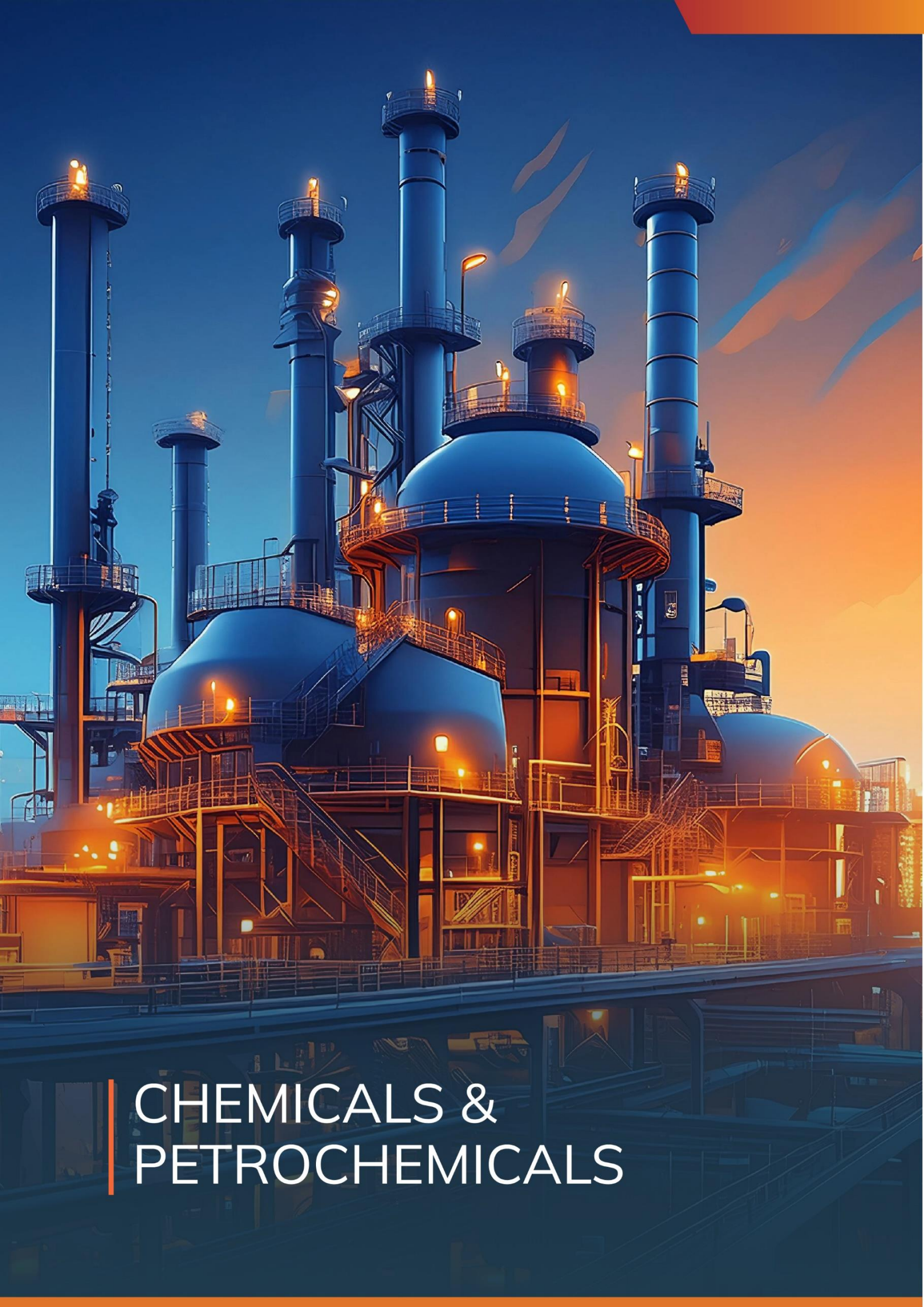
**Figure 8: Biotech & Lifesciences Sector Comparative Analysis 2023 Vs 2022**

The decrease in the risk index of the biotech sector in India from 62 in 2022 to 60 in 2023 can be attributed to an increase in the risk exposure and a corresponding increase in risk management score of the sector. Favorable government policies, such as the concessional corporate tax rate of 15% for newly incorporated manufacturing companies and the production-linked incentive (PLI) scheme, have boosted the capital-intensive biotech and life sciences industry startups, contributing to a more favorable risk management environment.

Economic pressures, market dynamics, and the aftermath of the COVID-19 pandemic contributed to an increase in the risk exposure for the sector. Regulatory developments have played a role in enhancing the risk profile of the sector. The allowance of 100% foreign direct investment (FDI) under the automatic route for greenfield pharma and the government route for brownfield pharma, along with transparent regulations for biotech products, have instilled confidence in the industry. Increased focus on areas like biosimilar, contract research, and gene therapy in 2023 has also contributed to an increase in risk management.

In conclusion, the Indian biotechnology and life sciences industry witnessed tremendous growth and development by 2023, driven by government initiatives, technological innovation, and strategic investments.





# CHEMICALS & PETROCHEMICALS





## Chemicals & Petrochemicals

In 2023, the chemical and petrochemical industry in India played an important role in the country's economy, boasting a value of around ₹215 hundred crores and poised for tremendous growth. Characterized by extensive diversity and serving as a critical supplier to key industries such as textiles, pharmaceuticals, and agrochemicals, this sector witnessed significant investment activities and technological innovations. With over 80,000 trade items and over 2 million employees, the industry contributed significantly to India's GDP growth.

The main trend in 2023 was the huge economic activities seen in the sector, with petrochemical projects worth approximately ₹16 hundred crores under implementation and projects worth around ₹100 hundred crores announced. The Department of Chemicals and Petrochemicals (DCPC) aims to position India as a chemicals and petrochemicals manufacturing hub that can foster a conducive business environment. Furthermore, technological innovations, especially advances in the production of crude oil for hydrocarbon production, drove growth and efficiency in various industries.

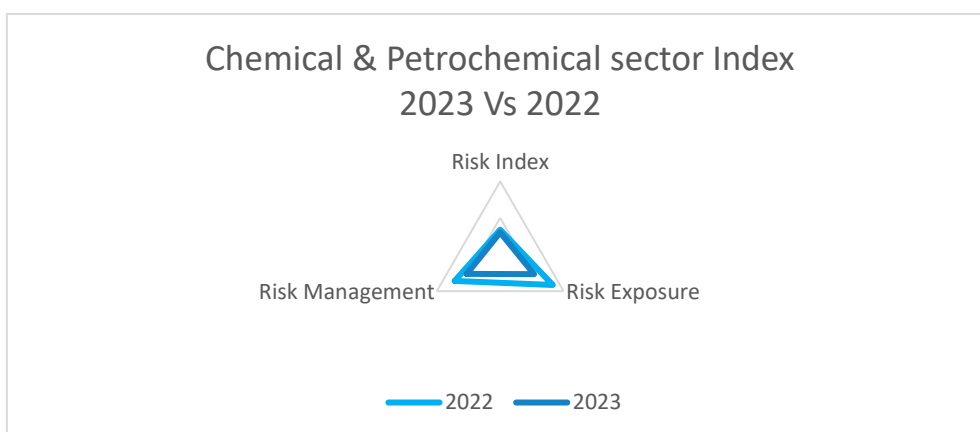
However, the industry also faced multifaceted challenges in 2023, including soaring energy costs, escalating raw material prices, and stringent Environmental, Social, and Governance (ESG) standards. The devaluation of the Indian rupee against the US Dollar exacerbated inflationary pressures on imports, particularly impacting the industrial chemicals segment.

In terms of market economic risks, the industry struggled with rising commodity prices, supply chain disruptions and geopolitical uncertainty. Geopolitical upheavals such as the conflict between Russia and Ukraine further amplified challenges, leading to spikes in fuel expenses, heightened freight charges, and elevated raw material prices. This conflict also roiled global energy markets, driving up crude oil and natural gas prices and affecting production and trade growth.

Foreign currency fluctuations also posed a risk to the business, with the Indian rupee depreciating against the US dollar. These changes affected production costs and competitiveness, especially for import-dependent firms. Furthermore, regulatory measures such as mandatory certification for imports of certain medicines were aimed at maintaining quality standards but also influenced import volumes and trade flows, thereby affecting foreign exchange rates.

To mitigate these risks, the industry has taken various measures such as investing in advanced cybersecurity tools and technologies, strengthening supply chain capacity and manufacturing outages to promote the environment.

Chemical & Petrochemical sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	57	67	64
<b>2023</b>	56	61	61

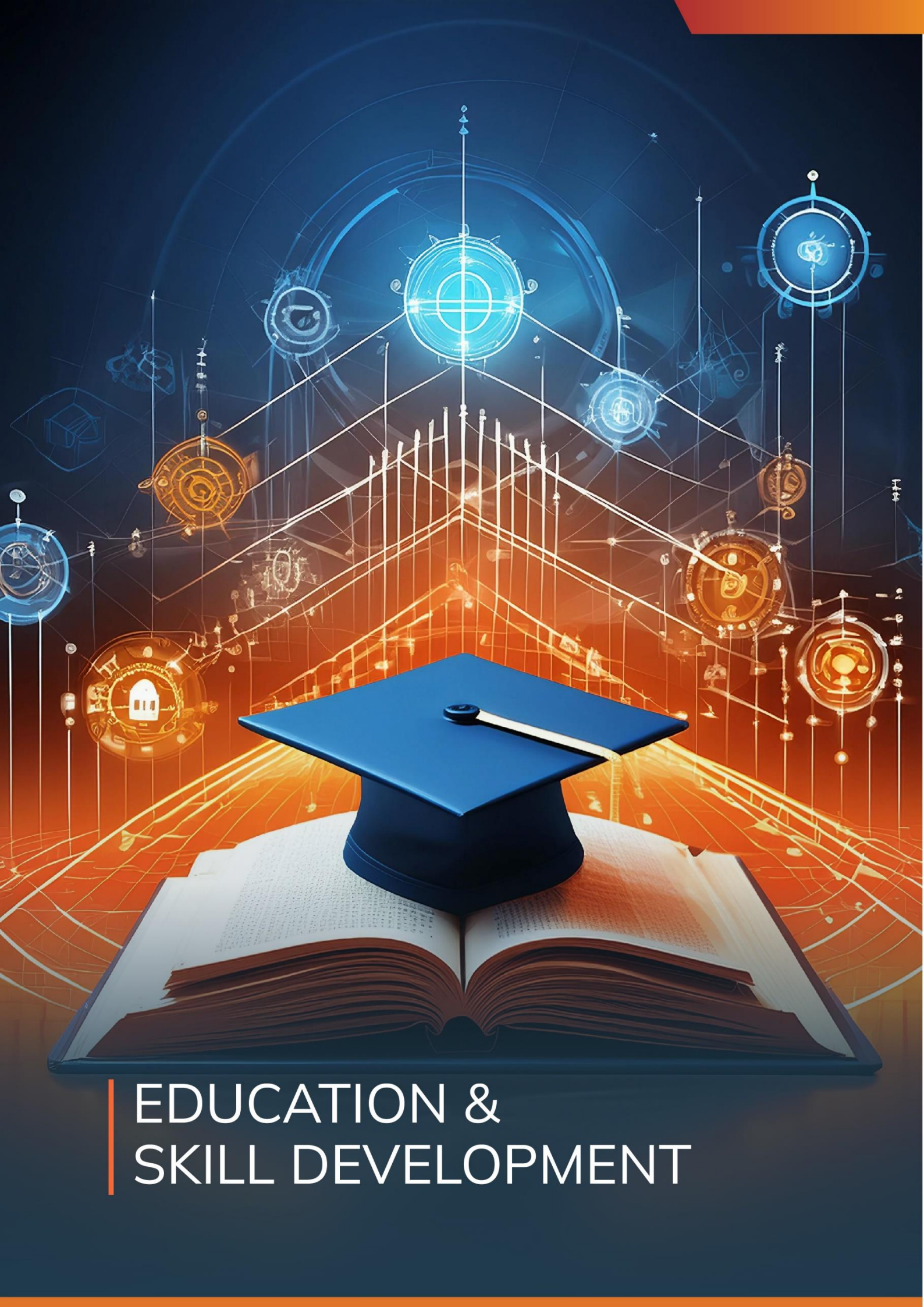


**Figure 9: Chemical & Petrochemical Sector Comparative Analysis 2023 Vs 2022**

The chemical sector has shown a slight decrease in the risk index by decreasing from 57 in 2022 to 56 in 2023. There is an associated decrease in the risk exposure from 67 in 2022 to 61 in 2023. The Indian government has introduced several regulatory and policy initiatives to facilitate and boost the development of this sector.

India's chemical industry is attracting global investments as companies seek to diversify their supply chains away from China to lower the risk. The sector's growth is further boosted by the implementation of designated Petroleum, Chemical, and Petrochemical Investment Regions (PCPIRs) to support downstream industries and enhance the industry's contribution to the GDP. The Indian chemical industry is also aligning itself with sustainability goals and adopting global best practices, which has contributed to reducing exposure to potential risks.

Looking ahead, the Indian chemical and petrochemical industry is resilient and poised for significant growth despite challenges by 2023. Bolstered by governmental initiatives, technological advancements, and burgeoning global demand, the sector is well-positioned to chart a trajectory of sustainable expansion and economic prosperity in the years to come.



# EDUCATION & SKILL DEVELOPMENT





## Education & Skill Development

India aimed to revolutionize the development of education skills by 2023, with breakthrough growth and adoption of digital tools. It is currently worth ₹117 hundred crores and will grow to ₹313 hundred crores by 2030, indicating significant potential for expansion and growth. However, some risks persisted, resulting in slower growth in the sector and hampering its ability to achieve its objectives.

One of the biggest concerns is the high level of inflation in this industry. The Consumer Prices in education have increased by almost 75 per cent since 2012, making tuition fees, textbooks and uniforms too expensive for a large portion of the population. These inflationary pressures not only limit equal access to resources but raise questions about the long-term sustainability and inclusiveness of the sector.

Moreover, the unstable legislation poses a formidable challenge to the educational scenario in India. The ongoing changes in the New Education Policy (NEP) create uncertainty, affecting stakeholders among students, teachers and institutions. Frequent policy changes create confusion and hinder the effective implementation of policies and procedures. However, NEP 2023 plays an important role in strategic risk management by emphasizing vocational training, skill development and reflective thinking along with traditional learning. It seeks to prepare students for an emerging job market and meet the requirements of the market by imparting skills related to services.

While rapid integration of technologies is promising, it also widens existing gaps, especially across the digital divide. Students from disadvantaged backgrounds often lack access to essential technology, limiting their participation in online learning and skills development programs. This digital divide highlights the need for inclusive technology policies to ensure equal access to educational resources and opportunities.

In addition to these challenges, the lack of infrastructure poses operational and physical risks to educational institutions, especially in rural areas. Dilapidated buildings, poor sanitation and lack of teachers undermine the quality of education and create barriers to learning. Addressing these infrastructure-related challenges is essential to creating the right environment for an effective teaching and learning experience.

Additionally, cybersecurity threats are becoming more common as educational institutions increasingly rely on digital channels for distribution. The vulnerability of sensitive data to cybercrime such as phishing, DDoS attacks, and ransomware poses a serious threat to student privacy and institutional security. Strict online security measures including data encryption and auditing routinely are essential to mitigate this threat and protect sensitive information. Measures such as monitoring CCTV and implementing mental health information systems to ensure safety are the need of the hour.

In response to these challenges, concerted efforts are being made to reduce risks, improve the sector and build resilience. Impressive investment allocations such as investing ₹1.1 lakh crores in Edtech, skill development and R&D by 2023 show the government's commitment to education.

Educational & Skill Development sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	62	63	63
<b>2023</b>	61	63	65



**Figure 10: Education & Skill Development Sector Comparative Analysis 2023 Vs 2022**

The education sector's risk index decreased in 2023 compared to 2022. An increase in risk management score suggesting improvements in managing innovation, process transformation, and contingency planning. Phased implementation of policy frameworks ensured minimal impact from political and economic fluctuations. The sector grew backed by government initiatives aiming to establish three AI centers and introduce modern industry courses emphasizing coding, AI, IoT, mechatronics, drones, and soft skills to equip students for the future job market.

Education, being a stable industry, faced regular market risks due to its necessity and long-term investment nature. Companies adapted to online teaching, useful during natural disasters and pandemics, and complied with heavy regulation, including the new education policy. Despite technological advancements posing data breach risks, companies are implementing rigorous data protection measures to mitigate such threats.



| ENERGY



## Energy

India's energy industry stood at a critical juncture in 2023, characterized by the strong interplay of growth opportunities, challenges and strategic priorities. As one of the world's fastest-growing economies, India has emerged as a key player in the global energy landscape with significant implications for both domestic development and international dynamics.

In recent years, India has witnessed a transformational shift in the energy mix, with a gradual shift towards solar, wind and other renewables. The country's installed renewable energy capacity has surged from approximately 114 GW in March 2018 to around 179 GW by March 2023, accounting for about 43% of total installed capacity. While impressive progress has been made, this shift reflects India's commitment to decarbonization and sustainable development in line with global efforts to combat climate change.

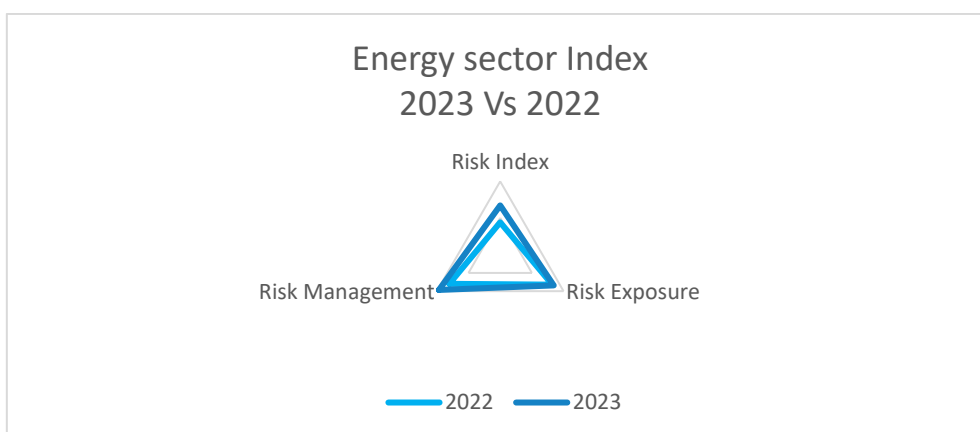
However, amid these developments, the energy sector faces a host of risks that will hamper growth and undermine recovery with risks. From operational challenges such as accidents, equipment malfunctions and supply chain disruptions to strategic risks such as resource shortages and public sentiment, the sector navigates a complex landscape fraught with uncertainties. and even more so, geopolitical pressures, cyber threats and legal uncertainty.

The key trend in India's power industry in 2023 was the sharp increase in power demand due to the resumption of economic activity after the easing of pandemic restrictions. These developments highlight the critical role of power systems in facilitating economic growth and social welfare, as well as the need for strategic investments and strengthened regulatory frameworks to meet demand in the ongoing process.

Furthermore, India's commitment to increase renewable energy and reduce carbon emissions presents both opportunities and challenges. While the transition to renewable sources offers environmental benefits and long-term energy security, it requires substantial investments, policy support, and technological innovations to overcome intermittency challenges and ensure grid stability. Additionally, geopolitical risks, supply chain disruptions, and regulatory uncertainties necessitate proactive measures such as diversification of energy sources, strategic partnerships, and capacity-building initiatives to bolster resilience and mitigate vulnerabilities.

Energy sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	59	66	66
<b>2023</b>	63	67	69





**Figure 11: Energy Sector Comparative Analysis 2023 Vs 2022**

The risk index of the Energy sector increased from 59 in 2022 to 63 in 2023, which can be attributed to an increase in risk management to counter the increase in risk exposure.

The sector faced persistent challenges such as high Aggregate Technical and Commercial (AT&C) losses, financial pressures on distribution companies (Discoms), poor infrastructure resilience to natural disasters etc. These challenges highlight the need for comprehensive risk mitigation strategies. For example, initiatives to reduce AT&C losses through smart metering, grid regeneration, and enhanced cybersecurity measures can increase operational efficiency and economic growth.

In conclusion, India's energy sector in 2023 reflects a dynamic landscape shaped by trends, emerging risks and strategic priorities. As the country seeks to address its growing potential while moving towards the Sustainable Development Goals, proactive risk management, strategic investments and policy reforms are essential to enable it to deal with uncertainties, exploit opportunities and promote resilience & inclusive energy ecosystems.



| FMCG



In 2023, the FMCG sector in India navigated through dynamic market conditions, showcasing resilience and adaptability amidst evolving consumer trends and regulatory landscapes. A nuanced analysis reveals multifaceted trends and insights driving the sector's performance and shaping its future trajectory.

The FMCG industry in India experienced a notable upswing in volume and value growth, indicative of robust consumer demand and market penetration. Q3 2023 witnessed an impressive 8.6% volume growth nationwide, with rural markets contributing significantly with a 6.4% growth rate. The resilience of modern trade channels, boasting a remarkable 19.5% growth, underscored the sector's ability to leverage evolving retail formats. Moreover, the +9% value growth in Q3 2023, propelled by volume expansion, signaled a favorable consumption environment. Noteworthy was the discernible shift in rural consumption patterns towards non-essential categories, particularly Personal Care and Home Care Products, reflecting evolving consumer preferences and increasing discretionary spending.

Key governmental initiatives such as the Gati Shakti Master Plan and Maritime Amrit Kaal Vision 2047 played instrumental roles in fortifying the FMCG sector's foundation and fostering long term growth. The Gati Shakti Master Plan's emphasis on bolstering first and last mile connectivity aimed at optimizing logistics efficiency and reducing operational costs, thereby bolstering supply chain resilience.

The FMCG industry's burgeoning economic footprint, exceeding ₹9.1 lakh crores, underscored its pivotal role in driving India's economic growth and employment generation. Furthermore, the burgeoning online FMCG market, valued at ₹1.7 lakh crores in the D2C segment, reflected the sector's rapid digital transformation and evolving consumer purchase behaviors. Such digitalization trends underscored the industry's adaptability to changing market dynamics and its proactive approach towards catering to digitally savvy consumers.

FMCG sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	68	69	75
<b>2023</b>	66	71	75



**Figure 12: FMCG sector Comparative Analysis 2023 Vs 2022**

The risk index for the FMCG sector decreased from 68 to 66. The year was full of ups and downs which impacted different elements of the FMCG supply chain, recovering from the pressure of the pandemic. The Union Budget 2023-24 announced a 33% increase in capital investment outlay to Rs 10 lakh crores, focused on infrastructure growth, which was expected to stimulate consumption, generate opportunities both in rural and urban employment, and boost local production. The budget also included a slew of announcements for the agriculture sector, which was expected to benefit the FMCG industry.

The risk exposure for the sector increased due to weaker-than-expected festive demand, rainfall deficit that hampered rural growth, unseasonal rains that affected sale of beverages and higher commodity prices.

Looking ahead, the FMCG sector in India is poised for sustained growth, with forecasts indicating a 7% 9% expansion in 2024. However, challenges such as inflationary pressures, subdued consumer confidence, and prevailing unemployment rates warrant strategic foresight and proactive measures. The sector's resilience and adaptability, coupled with robust government support and digital transformation initiatives, position it favorably to navigate through uncertainties and emerge stronger.





# HEALTHCARE DELIVERY





## Healthcare Delivery

The Healthcare Delivery sector in India experienced a dynamic and transformative year in 2023, characterized by significant growth, government initiatives, technological advancements, and notable developments in medical tourism. The sector's value reached a remarkable USD 372 billion, propelled by a combination of factors including robust investments from both the private and public sectors. Government initiatives such as Ayushman Bharat played a crucial role in expanding healthcare facilities in rural areas, promoting generic medicines through Jan Aushadhi Centers, and allocating funds for research and development in medical technologies. Increased government spending, amounting to 2.1% of GDP, and support for healthcare startups underscored a commitment to improving healthcare accessibility and quality across the nation.

The emergence of COVID induced transformations accelerated the adoption of telemedicine and remote healthcare services, revolutionizing the way healthcare is delivered. Telemedicine platforms became mainstream, providing convenient access to healthcare services, particularly in rural and underserved areas. Furthermore, advancements in wearable devices, electronic health records, AI, and block chain technology reshaped healthcare delivery, facilitating real time diagnostics, personalized treatment, and secure data sharing.

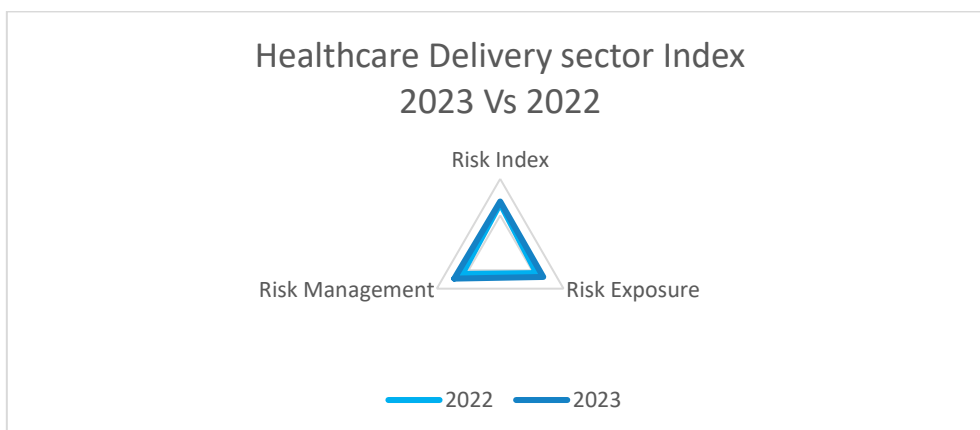
In addition to Ayushman Bharat, the government implemented various policies to strengthen the healthcare ecosystem. Notably, investments in health infrastructure expansion, skill development initiatives for healthcare professionals, and efforts to improve health insurance penetration through schemes like Ayushman Bharat Yojana contributed to enhancing healthcare accessibility and quality across the country. Moreover, the emphasis on research and development in medical technologies and diagnostics through labs and the Indian Council of Medical Research (ICMR) fueled innovation in the sector.

Throughout 2023, several key events and developments shaped the healthcare landscape in India. The continuation of the COVID 19 vaccination drive aimed at inoculating a significant portion of the population, while investments in building and upgrading healthcare infrastructure expanded access to quality care.

India's medical tourism industry continued to thrive, attracting millions of patients annually from around the world. The country's budget friendly care, top tier expertise, language ease, and cultural attractions contributed to its status as a preferred destination for medical treatment.

Despite progress, challenges such as health inequities and workforce shortages persisted. Efforts to bridge these gaps through targeted interventions and skill development initiatives were evident. Looking ahead, the healthcare sector in India is poised for further advancements, fueled by continued government support, private sector investments, and technological innovations. With a focus on improving accessibility, quality, and patient outcomes, the sector is well positioned to solidify India's position as a global leader in healthcare delivery and innovation.

Healthcare Delivery sector	Risk Index	Risk Exposure	Risk Management
2022	66	57	60
2023	66	66	69



**Figure 13: Healthcare Delivery Sector Comparative Analysis 2023 Vs 2022**

The risk index for the healthcare & delivery sector increased from 66 to 69. This can be attributed to an increase in both risk exposure and risk management. According to a survey, the healthcare sector in 2023 had one of the biggest underperformances compared to the broader market in more than a decade. Additionally, 2023 was a challenging year for the healthcare sector as investors repositioned their portfolios for a higher interest rate environment.

However, the year also witnessed an upswing in the sector backed by mergers and acquisitions, consolidation, private equity investments, record surge in stock prices, and improving financial performance.

2023 was a transformative year for the healthcare and delivery sector in India, marked by growth, innovation, and resilience. With concerted efforts from stakeholders and ongoing advancements in technology, the sector is poised for continued progress and excellence in the years ahead.



# INFRASTRUCTURE & REALTY





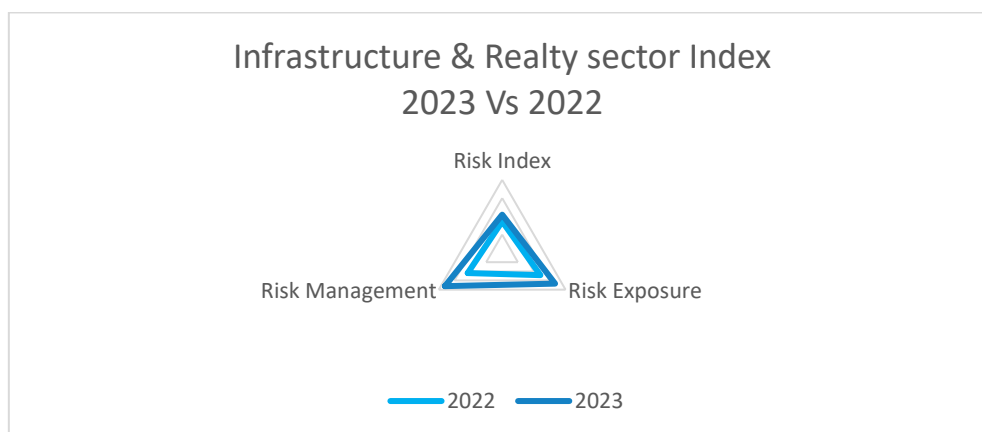
## Infrastructure & Realty

The infrastructure and realty sector in India experienced a transformative year in 2023, marked by significant developments and robust growth across various segments. The release of the India Infrastructure Report 2023, a collaborative effort led by prominent entities such as the IDFC Foundation and the National Institute of Urban Affairs, provided insightful themes focusing on sustainable urban development, smart initiatives leveraging digital technology, and the integration of infrastructure for better urban planning. This comprehensive report laid the groundwork for strategic interventions aimed at addressing the nation's evolving infrastructure needs.

One of the standout highlights of the year was the substantial increase in budget allocation for infrastructure investment, which surged by 33% to reach Rs 10 lakh crores for the fiscal year 2023–24. This substantial capital infusion underscored the government's commitment to fostering economic growth and creating new job opportunities through infrastructure development projects across the country.

Moreover, the real estate and infrastructure stocks emerged as key drivers of Indian equities, contributing to a record winning streak. This remarkable performance was fueled by robust economic growth, bolstered by government led initiatives to accelerate infrastructure development and stimulate investment in the sector. Foreign institutional investors played a pivotal role, injecting over USD 5.8 billion across 53 deals in 2023, signaling confidence in India's infrastructure potential and growth prospects.

Infrastructure & Realty sector	Risk Index	Risk Exposure	Risk Management
2022	59	62	61
2023	60	67	68



**Figure 14: Infrastructure & Realty Sector Comparative Analysis 2023 Vs 2022**

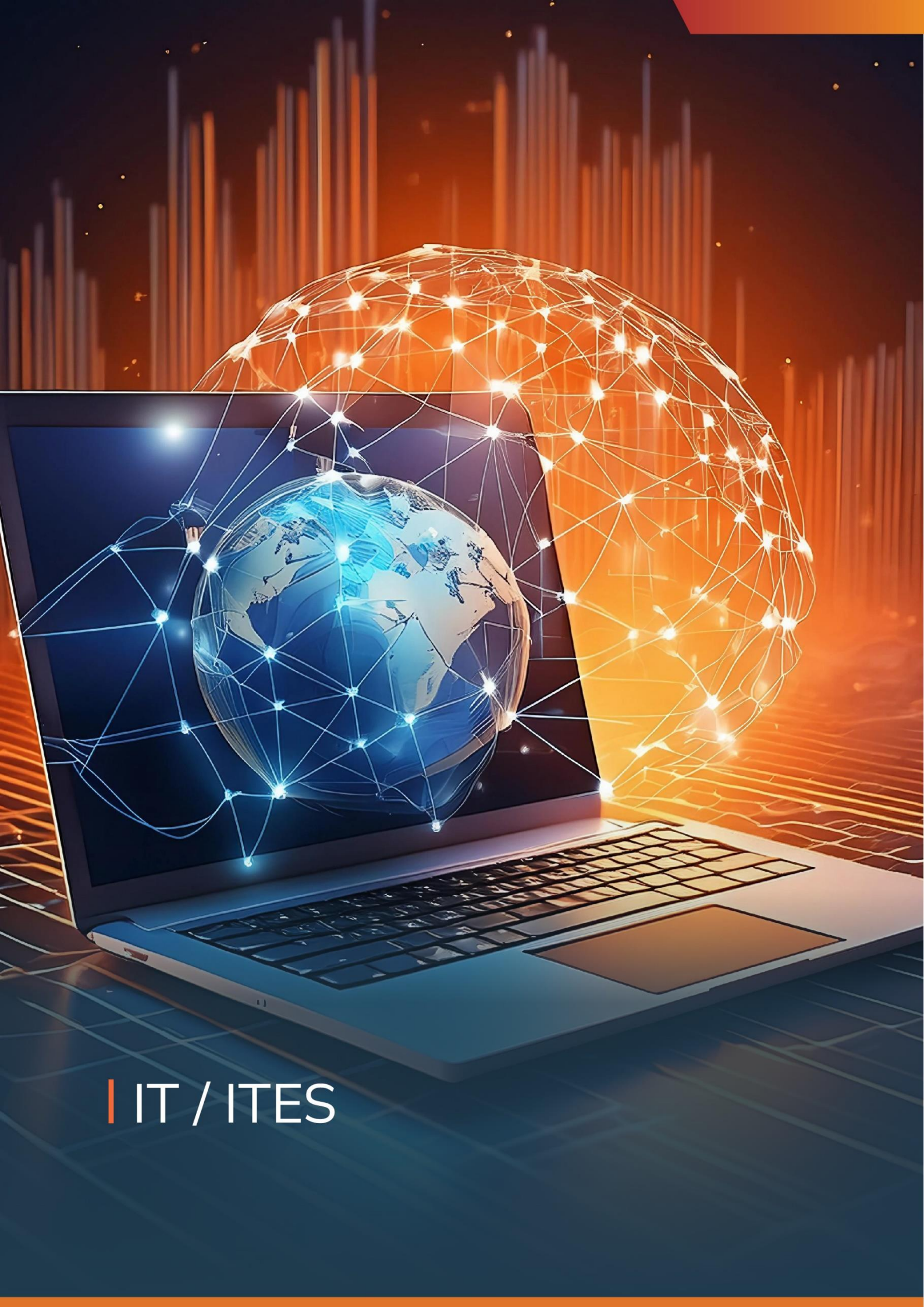


In the transition from 2022 to 2023, the risk index for the Realty & Infrastructure sector saw a marginal increase from 59 to 60, reflecting a relatively stable risk landscape with minor fluctuations. While the sector maintained a similar overall risk level compared to the previous year, there were notable dynamics at play. Geopolitical tensions, particularly stemming from the Russia-Ukraine conflict, continued to influence risk perceptions within the sector, albeit with less impact compared to the previous year.

In tandem with the financial investments, the real estate segment exhibited resilience and demonstrated strong performance in demand and supply indicators. Various asset classes, including office spaces, residential properties, retail spaces, data centers, and warehousing, contributed to this growth trajectory.

However, amidst the optimism, the sector also faced several challenges. Geopolitical uncertainties, coupled with the resurgence of new COVID 19 variants, posed risks to the real estate landscape. Asset monetization complexities remained a hurdle, requiring efficient utilization of assets and effective monetization strategies for sustained growth. Ensuring the financial sustainability of urban bodies and balancing public and private partnerships were identified as key considerations to navigate these challenges effectively.

Looking ahead, the infrastructure and realty sector in India is poised for further expansion, driven by continued investments, urbanization trends, and government support. Strategic initiatives and prudent measures will be essential to capitalize on opportunities and overcome obstacles, ensuring sustained growth and contributing significantly to the nation's economic development in the years to come.



| IT / ITES



## IT / ITES

India's Information Technology (IT) and IT Enabled Services (ITES) sector continued its impressive growth trajectory through 2023, cementing its position as a global leader in technology services. With a strong cash flow forecasted at ₹245 hundred crores by FY2023, the industry has demonstrated resilience and flexibility in the face of ongoing market dynamics. Notably, India's IT/ITES exports rose to US levels. ₹ 193 hundred crores, up 12.21% from last year, with key markets including the UK, Japan, etc. Additionally, India's leadership in technological talent was reaffirmed by securing top ranks in AI talent concentration and scientific publications, making it an attractive destination for establishing Global Capability Centers (GCCs) with over 1.66 million professionals.

In the budget for 2023-24, the Ministry of Electronics and Information Technology received a significant allocation of Rs 16,549 crores, reflecting the government's commitment to fostering technological advancement. Particularly noteworthy was the allocation of Rs 3,000 crores for the Indian Semiconductor Mission, aimed at kick starting the semiconductor and display manufacturing ecosystem in India. This investment is poised to fuel innovation and growth in the sector, positioning India as a global leader in semiconductor manufacturing.

Despite facing challenges such as slow growth and widespread economic uncertainty in Western economies, the Indian IT industry has strategically shifted to promising areas such as cloud computing, artificial intelligence (AI), cybersecurity etc. These technologies emerged as key focus areas for companies, signaling a strategic realignment to leverage transformative technologies. Cloud, AI, platform engineering, automation and cybersecurity have been identified as drivers of growth and innovation, with companies prioritizing niche capabilities in emerging verticals.

However, amidst the promising developments, there have been several risks in the sector which require mitigation strategies. Inflation, taxation, foreign exchange rates, geopolitical risks, disruptive technology, cybercrime, natural hazards, and strategic risks posed challenges to the industry's growth trajectory. For instance, inflation impacted profits due to rising costs, while taxation complexities and geopolitical tensions posed regulatory and operational hurdles. Moreover, disruptive technologies such as automation and AI presented both opportunities and challenges, requiring companies to invest in skilling and upskilling their workforce.

To mitigate these risks, IT and ITES companies implemented various measures such as effective risk management tactics, compliance with evolving tax regulations, and investment in workforce development. Additionally, the industry focused on enhancing cybersecurity measures, adopting anti-counterfeiting strategies, and diversifying supply chains to address operational and physical risks. Strategic resource allocation, public sentiment management, and proactive engagement with regulatory bodies were also prioritized to navigate strategic risks effectively.

IT/ITES sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	61	67	67
<b>2023</b>	61	62	64



**Figure 15: IT / ITES Sector Comparative Analysis 2023 Vs 2022**

In the period spanning from 2022 to 2023, the risk index for the IT/ITES sector remained stable at 61, reflecting a consistent level of risk management and resilience within the industry. Despite the challenges posed by the ongoing global uncertainties, the IT sector demonstrated remarkable stability and adaptability. Much like the previous year, the agility of IT firms played a pivotal role in maintaining this stability. Amidst the evolving landscape of remote work necessitated by the pandemic, these firms continued to exhibit flexibility, swiftly transitioning to remote work models with minimal disruption to their operations.

India's prominence as a global IT hub further solidified during this period, with its IT sector continuing to thrive. With over 17,000 firms, including more than 1,000 large enterprises boasting extensive delivery networks across the country, India has firmly established itself as the epicenter of information technology. Notably, the country's cost competitiveness in offering IT services, which remains significantly lower compared to the US, continues to be a key advantage in the global sourcing market. This sustained performance underscores the resilience and adaptability of the Indian IT sector, contributing to the overall stability of the country's risk index.

In conclusion, India's IT/ITES sector demonstrated dynamism, innovation and transformation by 2023 in a rapidly developing landscape. Despite facing challenges, the industry's strategic investments, technological advances and early risk mitigation strategies have positioned it for continued growth and leadership in global technology. As the sector continues to evolve, collaboration between government, industry stakeholders, and regulatory bodies will be crucial in driving innovation, fostering talent development, and ensuring sustainable growth in the years ahead





| MANUFACTURING



## Manufacturing

In 2023, the manufacturing sector in India showcased remarkable resilience and adaptability amidst a challenging economic landscape. Despite facing obstacles such as supply constraints and global economic instability, the industry demonstrated positive revenue growth driven by robust domestic and international demand. Particularly noteworthy was the surge in domestic manufacturing, spurred by disruptions in global supply chains. Key segments such as automobile manufacturing and electronics assembly played pivotal roles in meeting local demand, highlighting the sector's responsiveness to evolving market dynamics. Moreover, the adoption of Industry 4.0 principles marked a significant technological advancement, with automation, data analytics, and smart factories enhancing production efficiency and quality control. Sustainable practices also gained prominence, with manufacturers prioritizing energy efficient processes, waste reduction, and the integration of ecofriendly materials into the production processes. Circular economy models, emphasizing resource optimization, garnered traction, reflecting the industry's commitment to environmental stewardship.

The government's proactive initiatives and policies further bolstered the manufacturing landscape. The Production Linked Incentive (PLI) scheme, aimed at boosting manufacturing across sectors such as electronics, textiles, and pharmaceuticals, incentivized companies to invest in domestic production and research and development (R&D). Additionally, ongoing efforts to improve the ease of doing business through streamlined approvals, reduced compliance burden, and digital platforms facilitated smoother operations for manufacturers. Despite these positive developments, the sector encountered challenges, notably supply chain disruptions and a shortage of skilled labor. However, localization strategies and upskilling programs mitigated these challenges to a considerable extent.

Sector specific insights revealed significant developments in key manufacturing segments. The automotive sector witnessed growth, particularly in electric vehicles (EVs), driven by government incentives and consumer demand. Similarly, the pharmaceutical and biotechnology industries flourished, with a focus on vaccine production and biotech research and development. Additionally, advancements in technology, such as Industry 4.0 integration and robotics automation, revolutionized production processes, enhancing efficiency and productivity. Moreover, environmental sustainability emerged as a critical focus area, with manufacturers embracing green practices and circular economy models to minimize environmental impact.

Manufacturing sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	62	63	64
<b>2023</b>	67	72	75





**Figure 16: Manufacturing Sector Comparative Analysis 2023 Vs 2022**

The manufacturing sector showed a superior risk index of 67 in 2023, improving from an optimal risk index of 62 in 2022. Buoyant customer appetite, advertising, and expanded capacities all boosted optimism in 2023. The risk exposure increased by 9 points from 63 to 72 and balancing that out the risk management score improved by 11 points from 64 to 75. The manufacturing sector in India has been one of the most targeted industries for ransomware extortion in 2023 raising cybersecurity risks. Increased scrutiny of safety measures due to higher safety incidents and fatalities in 2023 as compared to 2022 has increased the risk exposure.

Looking ahead, the Indian Manufacturing sector is poised for continued growth and transformation. To maintain global competitiveness, investments in technology, innovation, and quality control are imperative. Regulatory reforms aimed at further improving the ease of doing business will be crucial for sustaining growth momentum. Moreover, the industry's resilience and adaptability will be pivotal in navigating future challenges and seizing opportunities for sustained success. In summary, the manufacturing sector in India demonstrated resilience, innovation, and commitment to sustainability in 2023, setting the stage for continued growth and prosperity in the years to come.



| MEDIA & GAMING





## Media & Gaming

The Media & Gaming industry in India witnessed significant growth and transformation in 2023, driven by evolving consumer preferences, increased internet access, and emerging technologies. Despite a global slowdown in revenue, India's market remained promising, with substantial growth potential. In 2022, India's E&M revenue reached USD 46,207 million, reflecting a 15.9% growth compared to 2021. The market is projected to grow at a compound annual growth rate (CAGR) of 9.7% during the forecast period, reaching USD 73,560 million by 2027. The gaming sector emerged as a powerhouse, experiencing meteoric growth with the Indian gaming industry clocking USD 3.1 billion in FY23 and projected to reach USD 7.5 billion by FY28, growing at a CAGR of 20%. Social/casual gaming dominated India's video games market, contributing 80.3% of total video games and e sports revenue in 2022. Additionally, over the top (OTT) platforms powered the industry, with streaming services benefiting from seamless streaming of higher quality content due to commercial 5G services launched in 2022. India's data consumption is projected to increase to 979.1K petabytes by 2027, with internet access revenue expected to generate USD 29.1 billion. Traditional TV broadcasting remained significant, alongside the rise in cultural spaces and live events, providing growth opportunities for advertisers.

The Government played a crucial role in promoting the gaming sector through initiatives to advance technological capabilities, ensure consumer wellbeing, and create an investment friendly environment. The establishment of the Inter-Ministerial Task Force (IMTF) aimed at recommending universal, national level legislation to regulate online gaming, with the Ministry of Electronics and Information Technology (MEITY) serving as the nodal ministry for gaming. Skill development programs focused on creating a talent pool of game developers and increasing cost competitiveness. India embraced Web3, integrating ideas like decentralization, VR, AR, and the metaverse into video games, contributing to substantial growth in Web3 businesses, including gaming. However, the sector faced risks such as a global slowdown in E&M growth and advertising challenges, while opportunities for digital transformation and growth in diverse demographics, particularly in gaming, remained promising.

Media & Gaming sector	Risk Index	Risk Exposure	Risk Management
2022	61	61	62
2023	66	60	63



**Figure 17: Media & Gaming Sector Comparative Analysis 2023 Vs 2022**

The changes in the overall risk index for gaming and media over 2022-23 can be attributed to increasing trends in evolution of artificial intelligence to transform the processes, security and privacy concerns that set in with the digitization and stirring up consumer preferences of an engaging experience encompassed in a figment of reality. The data suggests that risks have been relatively stable, however with the increasing market opportunity, the magnitude of implications also rises. With the onset of various AI tools involving creation and imitation of content, the persona of a person backed by sentiment analytics and data processing tools, the existing policy framework and preparedness against risks was challenged by the ever-evolving innovation. Further, the dynamic regulatory shifts in the gaming sector challenged the current operating model and costs for various companies.

With an increase in market players, scope for content related and reputational risk widens. Content-related risks may include offensive or controversial material, which can lead to backlash from audiences, advertisers, or regulatory bodies. Legal risks can stem from intellectual property infringement, defamation, or data privacy violations, which can result in costly legal battles and penalties and to avoid such penalties & backlash the sector has adopted Superior Risk Index. In summary, India's media and gaming sectors are on a dynamic trajectory, fueled by technology, changing consumer behavior, and a vibrant entertainment ecosystem.



METALS &  
MINING





## Metals & Mining

In 2023, India's mining and minerals sector has grown exponentially and played an important role in the country's economy. With an impressive 4.7% increase in total output, the industry demonstrated resilience and potential for further expansion. In particular, coal production grew by 12.47% year-on-year, reaching 92.87 million tonnes by December 2023. This increase highlighted the need of the sector to supply critical components for various industries including construction, transportation and electronics. Serving as a cornerstone of the nation's economic landscape, this sector plays a vital role in driving employment opportunities and contributing substantially to India's GDP.

Despite these positive developments, the mining and metals sector in India faced a multitude of risks, spanning environmental, social, operational, regulatory, and financial domains. Environmental considerations, including pollution and habitat degradation, posed significant challenges, necessitating a strategic focus on sustainability initiatives and stringent adherence to environmental standards. Moreover, operational hazards such as accidents, natural calamities, and equipment failures persisted, posing threats to operational continuity and reputation.

To address these risks, the sector embraced various mitigation measures. Enhanced safety protocols were implemented to mitigate inherent operational risks, including accidents and equipment failures. Additionally, there was a renewed emphasis on sustainability initiatives to minimize environmental impacts and ensure regulatory compliance. While automation, artificial intelligence and data analytics have emerged as key drivers in improving efficiency and reducing the risks associated with manual and business disruptions, strategic initiatives such as mergers and acquisitions have enabled growth in the sector.

Moreover, policy reforms, such as the enactment of the Mines and Minerals (Development and Regulation) Amendment Act, 2021, aimed to stimulate economic growth and foster technological advancements in the sector by enabling captive mine owners to sell up to 50% of their annual mineral production in the open market.

However, the business remained vulnerable to market and economic risks, including inflation, exchange rate fluctuations and tax challenges. Volatility in commodity prices and changes in earnings due to global market forces highlighted the need for proactive financial planning and risk management strategies to profit from market uncertainty.

Metals & Mining sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	57	62	60
<b>2023</b>	63	59	61





**Figure 18: Metals & Mining Sector Comparative Analysis 2023 Vs 2022**

In the period between 2022 and 2023, the risk index for the Metal and Mining sector displayed a notable increase from 57 to 63, indicating a shift in the sector's risk landscape. Despite facing ongoing global uncertainties, the Metal and Mining sector demonstrated resilience and adaptability, albeit with increased risk exposure. Similar to previous years, the sector's ability to manage risks played a crucial role in maintaining stability amidst challenges. However, factors such as heightened environmental concerns, regulatory changes, and supply chain disruptions likely contributed to the observed increase in risk. Despite these challenges, the sector continued to evolve, leveraging technological advancements and operational efficiencies to mitigate risks and enhance resilience.

The rise in the risk index underscores the importance of proactive risk management strategies within the Metal and Mining sector to navigate evolving risk environments effectively. As the sector continues to adapt to changing dynamics, sustained efforts in risk mitigation will be essential to ensure its long-term stability and sustainability.

Furthermore, strategic risks such as going after technological advances and security vulnerabilities highlighted the importance of continuous innovation and cybersecurity measures to maintain competitiveness and an emphasis on resilience in a developing environment.

In conclusion, the Indian mining and minerals sector demonstrated growth and resilience in 2023. It was about exploiting uncertainty and opportunities for sustainable growth and development. It faced many challenges requiring proactive risk management and strategic planning, industry innovation, systemic change, and adoption of sustainable ways of doing business.



NEW AGE &  
STARTUP



## New Age & Startup

The year 2023 saw a transformational year in India's New Age sector, characterized by change, innovation and transformation with ongoing market growth. At ₹68,292 crores, the funding scenario reflected the strength of India's startup ecosystem, attracting domestic as well as international investors. This massive investment underscored India's confidence in its entrepreneurial spirit and ability to drive growth through innovation. The Indian startup scene has expanded and diversified, driven by factors such as the rise of the internet, the rapid digitization of industry, and active government policies aimed at creating jobs and innovation.

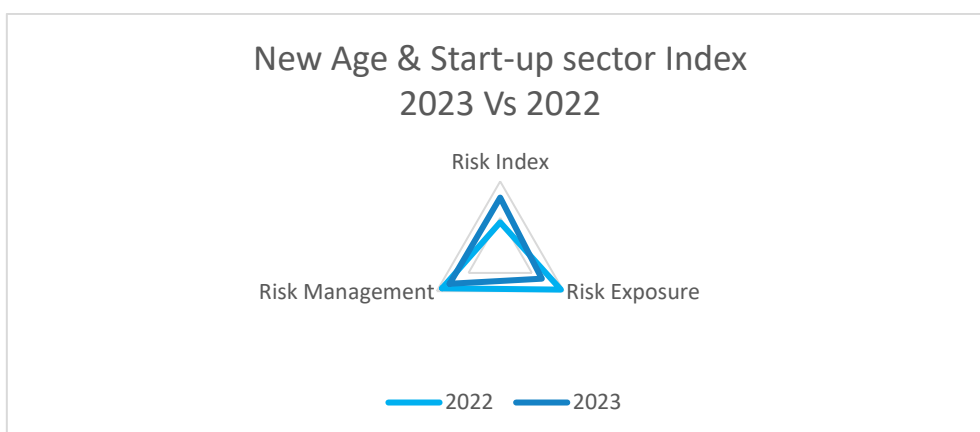
Notably by 2023, key sectors such as retail, fintech, transportation and logistics tech, Edtech emerged as the most funded sectors, reflecting opportunities and market demand especially the continued growth in deep tech in 2010, which drew a capital of ₹5,471 crores, underscoring India's commitment to industrial development and scientific research. New emerging industries such as aerospace, artificial intelligence and electric vehicles (EVs) have further enriched the startup industry, providing innovative solutions to social and technological challenges.

However, among the promising features, the nascent ecosystem faced several risks that required mitigation strategies. One of the most significant challenges is the decline in funding for startups, which fell to a five-year low of ₹7 hundred crores by 2023. The Fund for Startups (FFS) program is designed to address this in the context of global macroeconomic and geopolitical conflict. etc. policies were implemented, facilitating investment in start-ups, and providing necessary support for growth and innovation. Besides, measures for tax simplification, such as tax breaks and exemptions for start-ups, aimed at encouraging entrepreneurship and reducing the complexity of tax laws.

Regulatory risks also posed challenges to start-up business growth, with complex regulations identified as a major barrier. Despite initiatives to simplify regulatory frameworks and improve ease of doing business, such as the Startup India initiative aimed at creating an enabling environment for innovation startups and growth, cybersecurity has emerged as a key area of concern, with cybercrime on the rise and start-ups vulnerable to attack. Taking steps to increase cybersecurity awareness and investing in robust security infrastructure was necessary to protect beginners from cyber threats.

In response to operational and physical risks, start-ups focused on the importance of environmental responsibility, resilience and planning for employment have been sustainable.

New Age & Start-up sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	59	69	68
<b>2023</b>	66	63	66



**Figure 19: New Age & Start-up Sector Comparative Analysis 2023 Vs 2022**

In the transition from 2022 to 2023, the risk index for the New Age sector experienced a notable increase from 59 to 66, signifying a shift in the sector's risk landscape to superior risk Index. This significant uptick can be attributed to several factors, chief among them being the resurgence of natural hazard risks during the period. While 2022 witnessed a revitalization of business operations across various industries as the global economy gradually rebounded from the impacts of the COVID-19 pandemic, 2023 presented new challenges.

Looking ahead, India's primary ecosystem is poised for strategic growth and innovation, backed by government infrastructure, investor confidence and technological progress. By addressing the identified risks and capitalizing on the emerging opportunities, India's New Age industry is well positioned to record a sustainable growth and success story in the coming years.





| PHARMACEUTICALS



## Pharmaceuticals

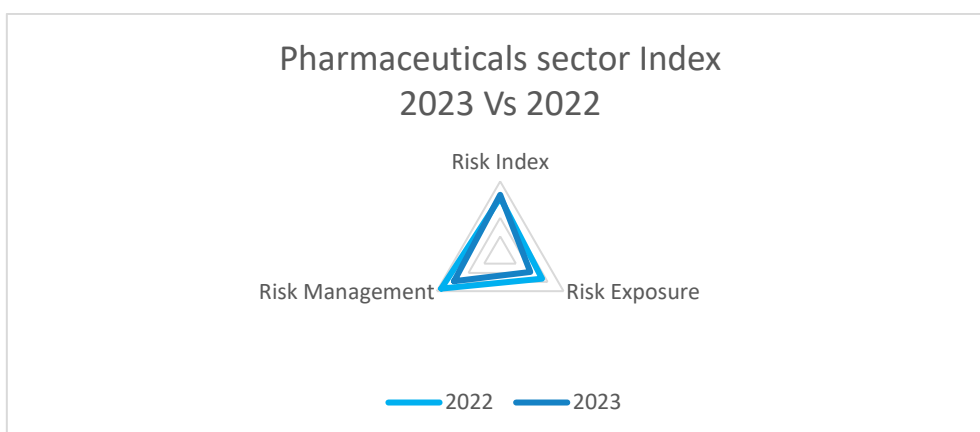
The Indian pharmaceutical industry has demonstrated resilience and growth amidst evolving market dynamics and external challenges. In 2023, the sector witnessed significant developments, characterized by robust market expansion, notable growth trajectories across therapeutic segments, and proactive government initiatives aimed at fostering innovation and affordability. Throughout the year, the Indian Pharmaceutical Market (IPM) showcased remarkable growth, with a notable 15% increase recorded in the first quarter, culminating in an overall market size of ₹50,361 crores. Both chronic and acute therapeutic areas experienced comparable growth rates of 15% PPG, underlining a balanced expansion across diverse segments.

Indian pharmaceutical companies exhibited strong performance, outpacing multinational counterparts with a 16% PPG growth compared to the latter's 10%. The year saw a notable surge of 26% in new product launches, indicative of ongoing innovation and expansion within the industry.

The Indian government rolled out several strategic initiatives and policy frameworks aimed at bolstering the pharmaceutical sector's growth and competitiveness. The introduction of the National Pharmaceuticals Policy and National Medical Devices Policy underscored the government's commitment to fostering research, innovation, and regulatory harmonization within the industry. Additionally, Atmanirbhar Bharat 3.0's Mission COVID Suraksha played a pivotal role in accelerating the development and production of indigenous COVID vaccines, enhancing the country's self-reliance and resilience in combating the pandemic. Looking ahead, the Indian pharmaceutical market is poised for sustained growth, with a projected Compound Annual Growth Rate (CAGR) of 10.70% during the forecast period (2024 to 2029). Market projections indicate that the sector is expected to reach a substantial value of ₹10.8 lakh crores by the end of 2023, driven by the provision of new, innovative medicines and therapies to patients. Additionally, the domestic market is anticipated to witness a threefold growth over the next decade, further solidifying the pharmaceutical sector's position as a key contributor to India's economic growth and healthcare landscape.

The COVID 19 pandemic presented both challenges and opportunities for the Indian Pharmaceutical sector. Increased demand for vaccines and pharmaceutical products underscored the industry's critical role in public health emergencies. India emerged as a pivotal hub for drug production and intermediates, with export restrictions being lifted to meet global requirements. Post pandemic, digitalization and domestic production are expected to drive sustained growth, positioning the pharmaceutical industry for continued success.

Pharmaceutical sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	71	68	74
<b>2023</b>	71	65	70



**Figure 20: Pharmaceuticals Sector Comparative Analysis 2023 Vs 2022**

The pharmaceutical sector's risk index in India remained flat at 71 in 2023, compared to 2022, showing no significant change from the previous year. This steadiness was influenced by several factors. Supply chain, technology, crime, and security risks continued to pose challenges, maintaining their levels from the previous year. Regulatory risk, which had spiked in 2022 due to license cancellations, stabilized in 2023 as companies adapted to new compliance standards. Operational hazards did not significantly change despite persistent infrastructure limitations.

In conclusion, the Indian Pharmaceutical sector demonstrated resilience and robust growth in 2023, buoyed by significant market expansion, proactive government initiatives, and industry innovation. With promising market projections, steady revenue growth outlooks, and a conducive policy environment, the sector is poised for sustained expansion and innovation in the coming years. As India continues to emerge as a global pharmaceutical powerhouse, the sector's contributions to healthcare accessibility, innovation, and economic growth remain paramount.





# TELECOM & COMMUNICATION





## Telecom & Communication

The Indian telecom & communication industry has emerged as a powerhouse, ranking second in the world with 1.079 billion subscribers (wireless and wireline) by December 2023. The sector growth is attributed to factors such as affordable tariffs, widespread availability, introduction of Mobile Number Portability (MNP), and expansion of 4G and 5G, which support government policy aimed at enforcing India's domestic telecommunications capacity. It attracted 6% per region to region, employed 2.2 million people directly and created 1.8 million new indirect jobs.

A key trend in the Indian telecom industry is to focus on deploying 5G networks and expanding network capacity across the country. According to GSMA estimates, India is on course to become the second-largest smartphone market in the world by 2025, with 920 million unique mobile subscribers, including 88 million 5G connections. Moreover, 5G technology is expected to contribute a staggering ₹450 hundred crores to the Indian economy between 2023 and 2040. Industry Broadband - Connections has also shown significant growth, increasing from Rs 61 million in March 2014 to ₹904.54 million in December 2023, showing an increase of 1382%.

Despite these advantages, the telecommunications industry faces various risks and challenges. High spectrum purchase costs, fierce competition, low revenue per unit and poor economic conditions are some of the major obstacles including the lack of network infrastructure in rural areas, posing challenges to accessing broadband 100% connectivity in villages. Additionally, cybersecurity threats, regulatory uncertainties and foreign exchange fluctuations increase risk in the sector.

Several strategies have been used to mitigate these risks. Telecom companies separated their tower assets, reducing operating costs and optimizing capital plans. Policy reforms such as allowing 100% foreign direct investment (FDI) in the telecom sector aimed at attracting investment and boosting growth. In addition, initiatives such as the National Digital Communications Policy 2018 aimed to attract more investment, while the Self-Reliant India initiative focused on developing stand-alone 5G technologies to accelerate the adoption.

In terms of risk management, the industry has made some progress, albeit slowly. Telecom companies are increasingly focused on tying up security, technical and operational risks. However, challenges remain, particularly in terms of preventing cybercrime and ensuring network reliability. Working with external partners and taking measures to address evolving cybersecurity threats is critical to protecting regional interests.

Telecom & Communication sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	72	61	66
<b>2023</b>	72	64	69



**Figure 21: Telecom & Communications Sector Comparative Analysis 2023 Vs 2022**

In 2023, the Risk Index for India's telecom and communication sector remained stable at 72, showing no significant change from the previous year. This consistency was largely due to a balanced performance across various risk categories. The sector benefited from the broader economic recovery post-COVID-19.

Operational, physical, and human risks saw no major shifts, indicating a sustained level of stability in these areas. However, there was a concerning increase in crime risks related to cyber-security and women's risk exposure. This escalation highlights the growing need for proactive measures by industry leaders to address these contingencies effectively. Despite maintaining its overall risk index, the telecom sector faced unique hurdles due to safety and cyber-security issues, which highlights the significance of continuous risk management initiatives within the sector.

Looking ahead, India's telecommunications industry continues to play an important role in the country's economic growth. With a strong focus on digital connectivity, innovation and attracting investment, the company remains resilient despite facing various challenges. Managing key risks, leveraging technological breakthroughs and establishing strategic partnerships encouraged, the business is ready to navigate uncertain paths and take advantage of emerging opportunities in the evolving telecommunications landscape.



# TOURISM & HOSPITALITY





## Tourism & Hospitality

In 2023, the hospitality sector in India exhibited remarkable resilience and adaptability, navigating through a dynamic landscape marked by a plethora of challenges and promising opportunities. With an estimated value of USD 24.61 billion in 2023 and a projected growth to USD 31.01 billion by 2029, the industry continued to play a pivotal role in bolstering the nation's economy and cultural prominence on the global stage. A significant driver of growth was India's rich cultural heritage and diverse landscapes, which served as magnets for both international and domestic tourists, positioning the country as a prominent destination for leisure, spiritual, and adventure travel experiences.

Domestically, the hospitality industry capitalized on the steadily growing middle class and increasing disposable incomes, which fueled a surge in domestic travel. Millennials emerged as a key demographic segment, displaying a heightened interest in exploring their own country and contributing to the profitability of the domestic travel segment. Furthermore, the industry adapted to changing consumer demands by implementing flexible check in and check out options, reflecting a customer centric approach to service delivery.

India's improved global ranking in the World Economic Forum's travel and tourism competitiveness index, coupled with its favorable ease of doing business environment, further solidified its position in the hospitality sector. Notably, the country ranked first globally in greenfield Foreign Direct Investment (FDI), attracting significant investments into its burgeoning hospitality infrastructure. Government initiatives aimed at bolstering cruise tourism, particularly through the development of key ports in Chennai, Goa, Kochi, Mangalore, and Mumbai, provided additional impetus to the industry's growth trajectory, stimulating demand for hotel services, retail, and culinary experiences in these regions.

Despite facing global geopolitical challenges and the looming threat of recession, the hospitality sector in India exhibited resilience, with domestic demand remaining robust throughout the year. Moreover, expectations of an increase in international travel further contributed to the industry's positive outlook. As the hospitality industry bid farewell to 2023, it found itself at the crossroads of transformation, reflecting on a year characterized by resilience, innovation, and adaptability. Looking ahead, industry leaders recognize the imperative of maintaining a sharp focus on health and safety protocols, accelerating digitalization initiatives, and embracing sustainable practices to ensure long term growth and resilience.

In conclusion, the Indian hospitality industry in 2023 traversed a challenging yet transformative landscape, characterized by evolving consumer preferences, technological disruptions, and global uncertainties. Through strategic adaptation and forward-thinking initiatives, the sector not only weathered the storm but also positioned itself for a promising future in the dynamic realm of travel and tourism.

Tourism & Hospitality sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	65	68	71
<b>2023</b>	65	63	66



**Figure 22: Tourism & Hospitality Sector Comparative Analysis 2023 Vs 2022**

The Risk Index for the Indian Tourism & Hospitality sector remained steady at 63 from 2022 to 2023, despite several notable developments. There was an uptick in travel, both domestic and international, compared to the previous year, with tourism reaching 87% of pre-pandemic levels in January-September 2023. The emergence of Lakshadweep as a new tourist destination contributed to the sector's potential growth, alongside increased revenue from hosting the G20 summit. However, the sector also faced challenges, including heightened competition and a lack of remote work opportunities for frontline workers, leading to workforce attrition.

Additionally, the sector encountered increased cybersecurity threats due to the adoption of technologies such as room key scanners and AI. Despite a decrease in global risk perception, pandemics continue to be a significant concern for the hospitality industry, ranking as the 10th highest risk. Risk exposure decreased compared to the previous year, contributing to a steady Risk Index.



# TRANSPORTATION & LOGISTICS





## Transportation & Logistics

The transportation and logistics sector in India showcased robust performance and significant advancements throughout 2023, driven by infrastructural developments, technological innovations, and government initiatives aimed at enhancing efficiency and reducing costs. India's logistics industry underwent a transformative phase, with substantial capital expenditure and technological integration contributing to its growth trajectory. Notably, India's ranking in the World Bank's Logistics Performance Index (LPI) saw a remarkable improvement, climbing six places to secure the 38th position among 139 countries. Despite the sector's significant contribution of approximately 14.4% to India's GDP, a vast majority of it remains unorganized, highlighting the potential for further optimization and streamlining. To address this, the government unveiled ambitious plans, including the Gati Shakti Master Plan, which prioritizes first and last mile connectivity to mitigate logistics costs and enhance overall efficiency.

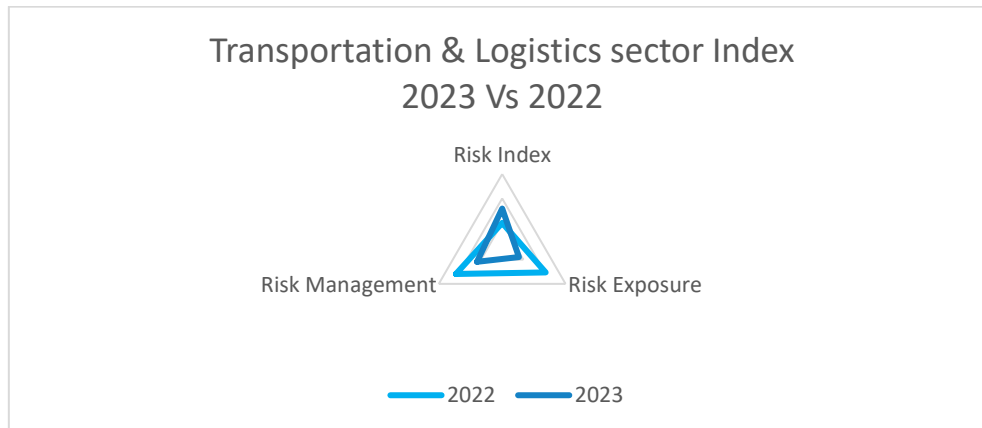
The Maritime Amrit Kaal Vision 2047, launched during the Global Maritime India Summit (GMIS) 2023, marked a pivotal milestone in India's maritime sector, involving a substantial investment of ₹80,000 lakh crores. This comprehensive roadmap aims to transform India into a maritime powerhouse by developing world class ports, promoting inland water transport, coastal shipping, and fostering a sustainable maritime ecosystem. Moreover, the inauguration of the National Logistics Portal (Marine) serves as a significant step towards enhancing transparency, efficiency, and collaboration within the logistics ecosystem through IT integration, thereby reducing costs and time delays.

India's achievements in the logistics domain were further underscored by notable improvements in key performance indicators. The Logistics Performance Index (LPI) witnessed significant enhancements, with India's rank soaring to 22nd in the International Shipment category. Moreover, the average Container Dwell Time was reduced to a commendable 3 days, showcasing operational efficiency comparable to global standards. Indian Ports' Turn Around Time also reached an impressive 0.9 days, surpassing benchmarks set by countries like the USA, Australia, and Singapore.

Key events such as the Global Maritime India Summit (GMIS) 2023 played a pivotal role in shaping the sector's trajectory, facilitating strategic collaborations, and announcing investible projects worth billions. With 360 MoUs signed, amounting to ₹8.35 lakh crores, and additional investible projects worth ₹1.68 lakh crores announced, the summit underscored India's commitment to fostering growth and innovation in the maritime domain. Moreover, the summit facilitated thousands of B2B and G2B/G2G meetings, paving the way for enhanced partnerships and collaborations.

Looking ahead, the future outlook for the transportation and logistics sector remains promising, with the market poised to grow at a robust CAGR of 10-12%. Continued focus on infrastructure development, technology adoption, and policy reforms are expected to drive sustained growth and innovation, positioning India as a global leader in the transportation and logistics domain. Overall, the performance and highlights of the transportation and logistics sector in India in 2023 reflect a period of significant growth, transformation, and strategic initiatives aimed at fostering sustainable development and economic prosperity.

Transportation & Logistic sector	Risk Index	Risk Exposure	Risk Management
<b>2022</b>	60	65	66
<b>2023</b>	63	59	61

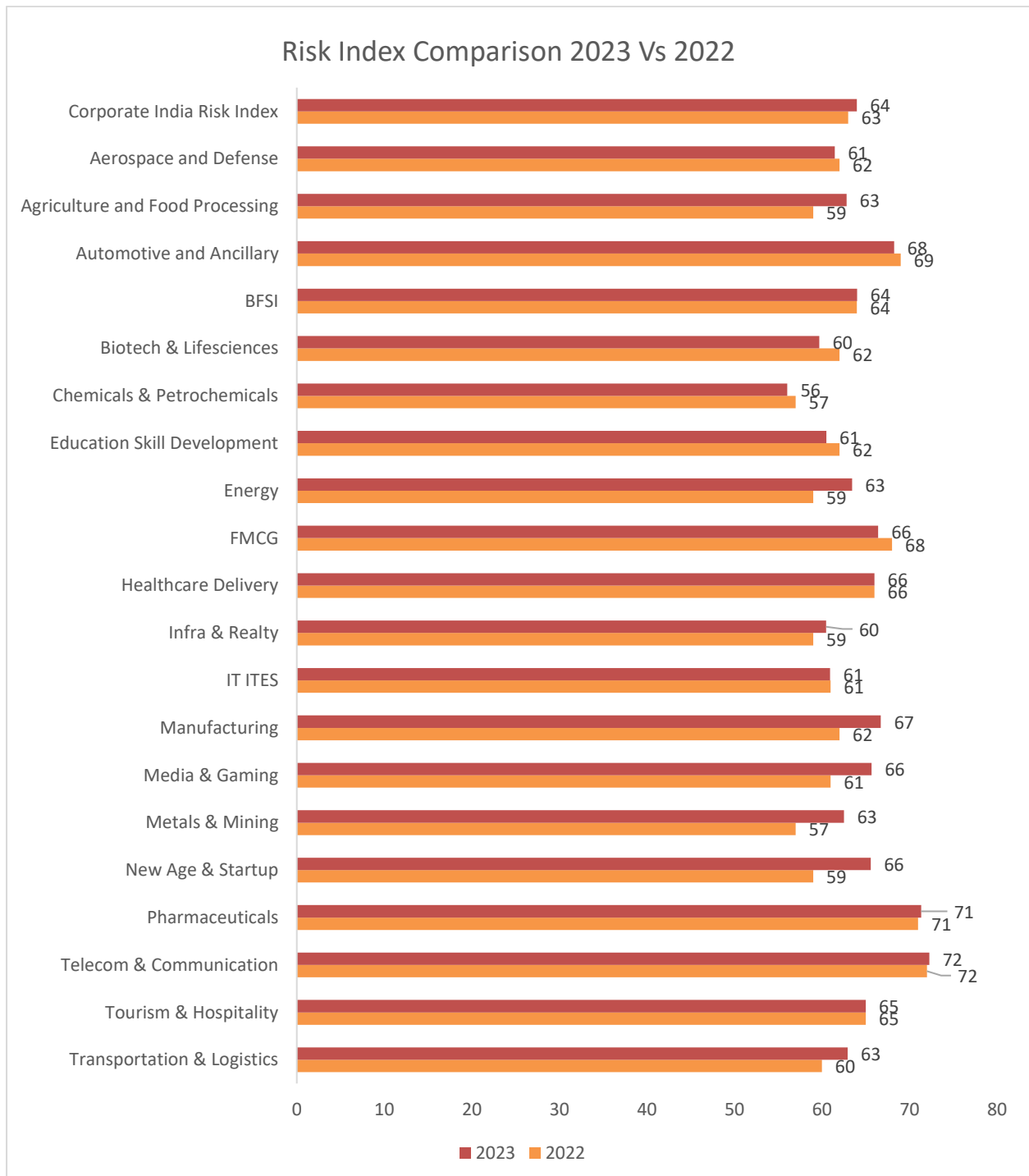


**Figure 23: Transportation & Logistic Sector Comparative Analysis 2023 Vs 2022**

The changes in the overall risk index for transportation and logistics sector in 2023 were driven by significant improvement in natural hazard and event risk, crime and security risk and technology risk. The most significant reduction in risk happened due to the reduction in commodity price risk as ATF price experienced a cut in the later quarter of the year, aiding air transportation.

The Risk index went up owing to significant decrease in risk exposure. Risk management stayed stable as acceptable. However, the rising inflation was a primary concern, led by the increase in fuel prices and the change in regulations due to the launch of the New Logistics Policy. Shortage of infrastructure facilities continued which gave rise to high risk of worker accidents. The logistics domain has witnessed a substantial upswing of 10-15% in recent times, and it is poised to sustain a promising Compound Annual Growth Rate (CAGR) of 10.5% until the year 2025, thereby substantiating the positive growth trajectory of this sector. The sectoral funds have outperformed the broader market in recent years, with returns ranging from 8% to 40% over the past year.

# How India's Risk Handling is Evolving



**Figure 24: Corporate India Risk Index detailed Comparative Analysis 2023 Vs. 2022**





## Corporate India Risk Index 2023 Vs 2022

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Corporate India Risk Index (Optimal Risk Handling): The overall Risk Index was 64 for 2023 compared to 63 in 2022, showcasing an improvement due to an increase in the risk management score of 2023. The risk exposure of the country remained consistent to last year. However, coupled with appropriate risk management strategies for operational, market and technological risks, the Risk Index score for 2023 is optimal.

There was no significant change in the Risk Index of sectors like BFSI, Pharmaceuticals and IT ITES. Emerging risk management strategies in the area of sustainability, technological risks and strategic risks enabled an optimal score for these sectors.

A marginal drop in the risk index was observed in sectors like FMCG, Biotech & Lifesciences and Automotive & ancillary primarily due to geopolitical events like the Red Sea crisis, and the Palestine conflict extrapolated by global inflation and recession.



## Corporate India Risk Management 2023 Vs 2022

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The Risk Management Score for India slightly improved from 66 in 2022 to 67 in 2023. Effective risk management strategies were adopted by sectors like Manufacturing, FMCG, Energy and Healthcare, to counter supply chain risks caused due to several geopolitical events. India Risk management was superior in operational risks and market and economy risks, with a scope of improvement in the area of strategic risks and crime & security risks.



## Corporate India Risk Exposure 2023 Vs 2022

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The India Risk Exposure remained constant from 2022 to 2023 with a score of 64. It remained consistent with 2022, due to continuation of various geo-political tensions, global recession and a high inflation rate. sectors like Automotive, Manufacturing and FMCG showcased high levels of risk exposure due to supply chain risk, financial risk and tumultuous demand.

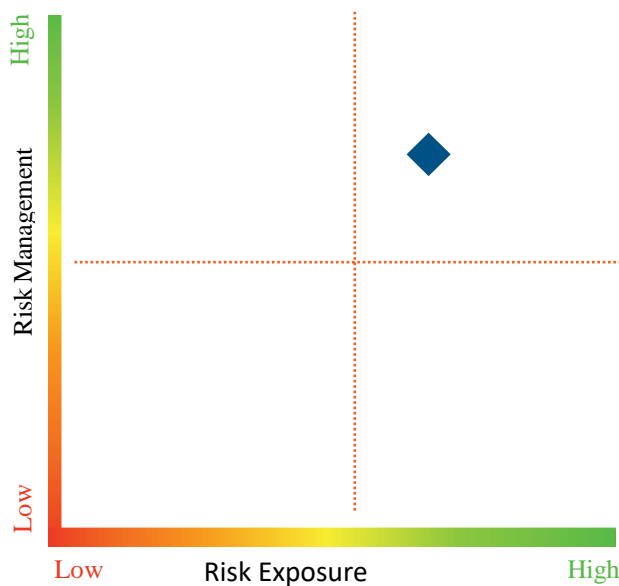
# Key Highlights



## Risk Dimension Analysis: Market and Economy

**Risk Exposure Score: 67**

**Risk Management Score: 69**



### Inflation

- In 2023, India experienced fluctuations in inflation, with rates peaking at 7.44% in July, marking the second-highest rate since November 2021, while easing to a four-month low of 4.87% in October before surging to 5.55% in November.
- Despite expectations, the Reserve Bank of India (RBI) maintained the repo rate at 6.5% since February 2023. However, in response to inflationary pressures, the RBI raised the repo rate by 25 basis points to 6.50%, aiming to curb rising consumer prices.
- The Monetary Policy Committee (MPC) prioritized withdrawing accommodation to ensure inflation remains within the 4% target. The decision reflects the RBI's commitment to maintaining price stability while supporting economic growth.
- Consumer price index (CPI)-based inflation moderated to 5.09% in February, following a decline from 5.69% in December 2023 to 5.1% in January 2023. Despite fluctuations, inflation remained within the RBI's tolerance range of 2-6% for six consecutive months, aligning with the central bank's objectives.
- Global events such as the Ukraine war and pandemic-related disruptions in 2023 impacted India's inflation-targeting regime. Supply chain disruptions and currency depreciation contributed to rising input costs and product prices, posing challenges to inflation management efforts.

### Taxation

- The 2023-24 Budget introduced amendments to the individual income tax regime, raising basic exemption limits and incorporating standard deductions, aiming to ease the tax burden on taxpayers.
- Gross tax collections for the fiscal year surged by 17.7% YoY to ₹12.67 lakh crores, with net collections witnessing a significant 23.4% growth to reach ₹10.64 lakh crores, demonstrating efficient tax administration.
- Speedy processing and refunds characterized the tax system, with over ₹2.03 lakh crores refunded, and more than 3.43 crores Income Tax Returns (ITRs) processed within 7 days, facilitated by initiatives like TIN 2.0 and pre-filing of ITRs.
- Provisional figures for Direct Tax collections in FY 2023-24 show a robust performance, with net collections reaching ₹13 lakh crores, marking a notable increase of 20.66% compared to the corresponding period of FY 2022-23.
- Advance Tax collections also saw significant growth, reaching ₹6.2 lakh crores, a 19.94% increase compared to the previous fiscal year, highlighting positive trends in tax compliance and revenue mobilization.

### Regulatory Risks

- The India's regulatory framework remains complex despite digitization efforts, posing challenges for businesses, particularly foreign investors, due to overlapping regulations and multiple levels of government involvement.
- The regulatory environment was volatile, with frequent amendments and updates, requiring businesses to constantly monitor and adapt to stay compliant, creating a moving target for compliance.
- The government prioritized reforms to simplify business operations, introducing initiatives like online approvals, single window clearances, and faster dispute resolution mechanisms to streamline the business environment.
- Liberalized FDI policies, easier profit repatriation, and improved intellectual property protection initiatives enhance opportunities and confidence for foreign investors, contributing to a more investor-friendly environment.
- Positive regulatory changes were observed across sectors, including streamlined environmental clearances, relaxed labor regulations in specific industries, and the promotion of digital infrastructure, fostering increased growth and competitiveness.



### Foreign Exchange Rates

- In 2023, the rupee commenced trading at 82.66 against the US dollar, later depreciating to 83.35 by December 27, marking a 0.8% decline.
- November 24 witnessed the rupee hitting an unprecedented low of 83.36 against the US dollar amidst geopolitical tensions and increased import demand during the festive season.
- Geopolitical uncertainties, including the Israel-Hamas conflict, favored the US dollar's safety, while global events like the banking crisis and Fed rate hike influenced the rupee's performance.
- Throughout 2023, the RBI intervened in the forex market to mitigate the rupee's sharp depreciation, as the currency traded within a broad range of 81.60-83.05 in the first half and saw minimal volatility in the second half.

### Geopolitical Risks

- Spillover effects from the slowdown in world trade, tighter monetary conditions, increasing fragmentation and geopolitical strife remain contingent risks to the Indian economy.
- The crisis in the Red Sea region has had far-reaching implications across various sectors. It has disrupted supply chains, particularly impacting the pharmaceutical industry due to risks of supply disruptions for critical ingredients and chemicals, while also affecting shipping routes and increasing shipping costs for exporters.
- Geopolitical tensions, including the crisis in the Middle East and strained India-US ties, disrupted India's export channels, particularly affecting shipments to the Middle East, the US, and Europe, impacting agricultural output and food prices.
- The escalating conflict between Israel and Palestine disrupted efforts towards regional stability, impacting India's stance on the Israel-Palestine conflict and potentially affecting trade relations in the Middle East.
- The ongoing Russia-Ukraine war and funding challenges faced by Western nations had implications for global stability, potentially impacting India's trade relations and economic outlook, with concerns over geopolitical alignments and economic sanctions.
- Challenges in the Maldives, with the government expressing intentions to terminate agreements with India and leaning towards China, posed strategic challenges for India's regional influence and security dynamics in the Indian Ocean region.
- India's diplomatic efforts at the G20 summit and its focus on mobilizing developing and less developed countries under the banner of the Global South reflected its strategic positioning amidst geopolitical uncertainties, aiming to assert leadership in international fora and safeguard its interests.

### Competitive Risk

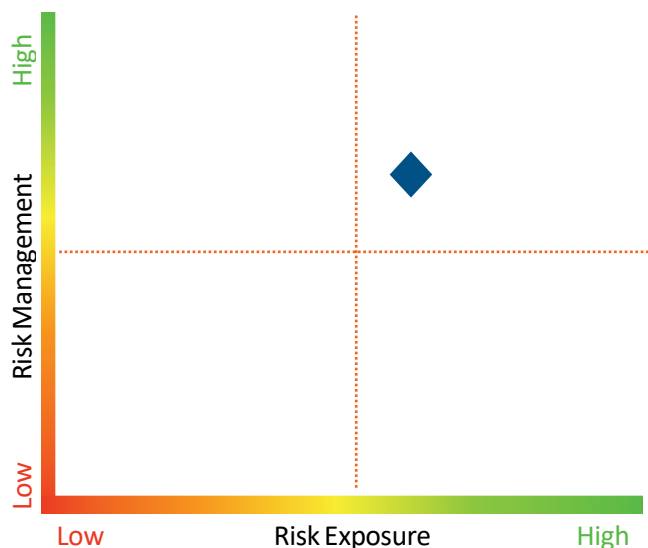
- In 2023, India's market diversity expanded with a surge in startups and established firms, triggering price competition and necessitating continuous innovation for market leadership.
- Ongoing technological advancements disrupted industries, compelling firms to prioritize digital transformation and innovation to remain competitive amid evolving consumer demands.
- India received a total score of 59.8 out of 100 in the 2023 Index of Economic Freedom, marking its lowest score in six years and positioning it at 121st out of 184 nations. Challenges in government transparency, labor freedom, and financial stability impacted its ranking.
- Established in 2002, the Competition Commission of India (CCI) enforced regulations against anti-competitive practices, fostering fair competition and safeguarding consumer interests, vital for ensuring equitable market conditions.
- The World Bank Institute's 'Worldwide Governance Indicators' survey highlighted improvements in India's regulatory quality and anti-corruption measures since 2016, signifying progress in governance standards and transparency.



## Risk Dimension Analysis: Technology

**Risk Exposure Score: 64**

**Risk Management Score: 67**



### Disruptive Technology

- India's technology landscape is rapidly evolving, driven by disruptive innovations. The challenges in this domain include identifying and adapting to emerging technologies like artificial intelligence (AI), block chain, and quantum computing. Organizations must stay abreast of these advancements to leverage their potential fully.

- Balancing the risks and opportunities presented by disruptive technologies is critical. While they offer immense growth opportunities, they also introduce new risks, such as ethical concerns related to AI and data privacy issues.
- Integrating disruptive technologies with existing legacy systems poses another challenge, requiring careful planning and execution to ensure compatibility and security.

### Intellectual property

- Innovation is fundamental to charting a country's economic growth and development. Complemented by effective intellectual property and patent-protection laws, it can enable innovators and researchers in countries like ours to climb up the global ladder as well.
- India's Rank on International Intellectual Property Index fell from 20 in 2014 to 42 in 2023.
- Verifying the authenticity of products, protecting IP, and ensuring the integrity of the supply chain are key challenges. Implementing secure authentication measures, enforcing IP protection mechanisms, and conducting regular supply chain audits are essential to mitigate these risks.

### Data compromise

- India accounted for 20 percent of all records exposed because of data breaches in 2022, a new report has revealed.
- India was the 10th most breached country globally in Q3 2023, with 369,000 leaked accounts, according to a cybersecurity report.



- India faced over 400 million cyber threats across 8.5 million endpoints in 2023, averaging 761 detections per minute.
- Data privacy, security, quality, and governance are significant challenges across all sectors. Protecting sensitive data from breaches and cyberattacks while complying with data protection regulations is essential.
- Organizations must establish robust data governance frameworks to ensure data accuracy, reliability, and relevance for informed decision making.
- Monetizing data ethically presents a challenge, as companies must balance commercial interests with privacy concerns.

### R&D/ Innovation failure

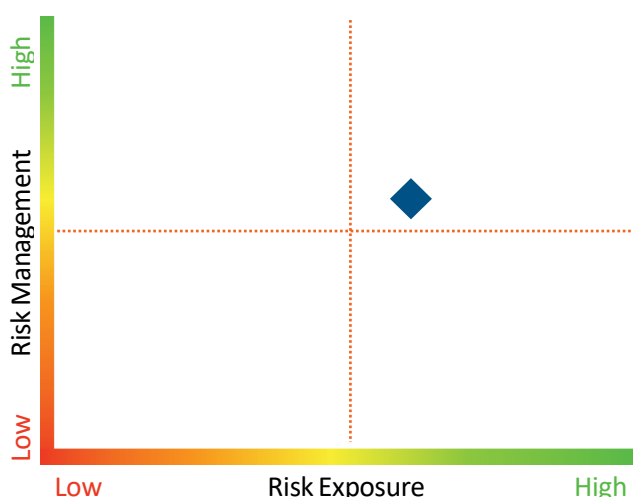
- Innovation inherently involves risk, with not all R&D efforts leading to successful outcomes. Managing the high failure rate of R&D projects, allocating resources effectively, and remaining agile and adaptable in a rapidly evolving landscape are key challenges.
- Organizations must prioritize projects based on market trends, customer needs, and technological feasibility to minimize the risk of failure.
- India retained 40th rank out of 132 economies in the Global Innovation Index 2023 rankings published by the World Intellectual Property Organization



## Risk Dimension Analysis: Operational and Physical

**Risk Exposure Score: 66**

**Risk Management Score: 69**



### Accidents/ Fire Safety

- Fire hazards in India have been a common cause of accidents in both residential and commercial sectors.
- In Delhi, in the last 2 years there have been more than 800 incidents of fires in factories.

- Thirty-three of the BSE50 companies, as on March 31, 2023, (excluding banking, financial services and IT) reported a combined 101 fatalities related to work in FY23, about half of the 211 in FY22. The fatalities reported include all kinds of labor at work: On-roll, contractual, and third-party.

### Strikes/Closure/Unrest

- Across sectors like agriculture, transport and manufacturing there were instances of labor strikes in the country.
- Companies should focus on maintaining healthy relationships with their employees by having robust HR policies and regular review and interaction with the employees.

### Supply Chain Risk

- Various geopolitical events like the Red Sea crisis, Russia Ukraine War and Israel Palestine conflict caused disruptions to the supply chain across sectors.
- To mitigate these risks, companies took to the trend of localization within India, diversified their supplier base, invested in inventory management systems, and adopted agile supply chain practices to enhance resilience and flexibility.

### Environmental Risk

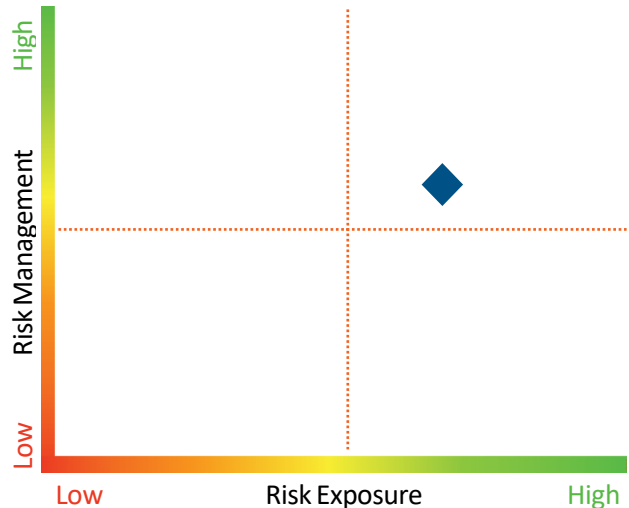
- India secured the 8th position in the Climate Change Performance Index 2023 report which is 2 positions up from the last edition.
- In the Sustainable Trade Index (STI) India, with a score of 26.0, occupied the 24th position in the rankings.
- This marks an improvement of two positions for India, reflecting India's ongoing efforts to enhance sustainability. While India may not be at the top of the list, it has shown commendable progress in sustainable practices.
- India is gradually transitioning to greener and cleaner practices, with increased adoption of renewable energy sources, afforestation efforts, and measures to combat pollution. India's actions toward environmental sustainability is critical in addressing its environmental challenges.
- India's economic performance is noteworthy, with initiatives aimed at sustainable economic growth, such as renewable energy investments, sustainable agriculture practices, and a growing emphasis on green industries. This bodes well for India's long-term economic sustainability.



## Risk Dimension Analysis: Crime and Security

**Risk Exposure Score: 59**

**Risk Management Score: 62**



### Cyber-crimes

- As of February 2022, India had 78% ransomware attacks, the highest type of cybercrime in India.
- In 2023, India reported a total of 129 cybercrime complaints per 1 lakh citizens, with 1.13 million financial cyber fraud cases totaling Rs 7,488.6 crores.
- The Ministry of Home Affairs established the 'Citizen Financial Cyber Fraud Reporting and Management System' under the 'Indian Cyber Crime Coordination Centre' to report financial fraud.

- Law enforcement agencies blocked 320,000 SIM cards and 49,000 IMEI numbers flagged by the police to curb cybercrimes.
- KYC expiry fraud, sextortion, and QR code scams were prevalent in 2023, with Indians reporting them as common local-origin scams.
- India ranked fifth globally in spam email distribution, with 7.97 billion spam emails sent during the year.
- Several data security breaches occurred in 2023, including an alleged data leak on the CoWIN portal, compromising the personal details of Indian citizens.

### Counterfeiting

- Counterfeiting was most prevalent in apparel (31%), FMCG (28%), and automotive (25%) sectors, followed by pharmaceuticals (20%), consumer durables (17%), and agrochemicals (16%).
- Three Indian markets, including one in New Delhi, and three online markets were listed in the annual notorious market list by the US Trade Representatives.
- The illegal economy in India scored 6.3, higher than the global average of 5 across 122 countries.
- Consumer perception estimated counterfeiting at 25-30% of the market, with 27% of consumers unaware of purchasing counterfeit products. This highlights the need for increased awareness and identification methods to combat counterfeiting.

**Threat to Women's Security:**

- The sense of safety among Indian women aged 15 years and above decreased, dropping from 65.5% in 2017 to 58% in 2023, as per the Georgetown Institute's 2023 Women, Peace and Security Index.
- Women in India face various forms of gender-based abuse, including rape threats and attempts to control their movements, contributing to the decline in their sense of safety.
- The "threat to women's safety" rose from 12th to 5th place in the 2022 India Risk Survey, emphasizing the importance of companies implementing measures to protect their female employees.

**Terrorism:**

- In 2023, India reinforced anti-terrorism measures by reviewing and potentially amending existing laws such as the Unlawful Activities (Prevention) Act to bolster investigative capabilities while ensuring checks against misuse.
- Enhanced cooperation between central and state agencies, as well as international partners, likely occurred to improve intelligence gathering and analysis, aimed at preventing terrorist activities.
- Efforts to strengthen border security through increased deployment of personnel and the utilization of advanced surveillance technology, like drones, were likely prioritized to curb infiltration and illegal activities.

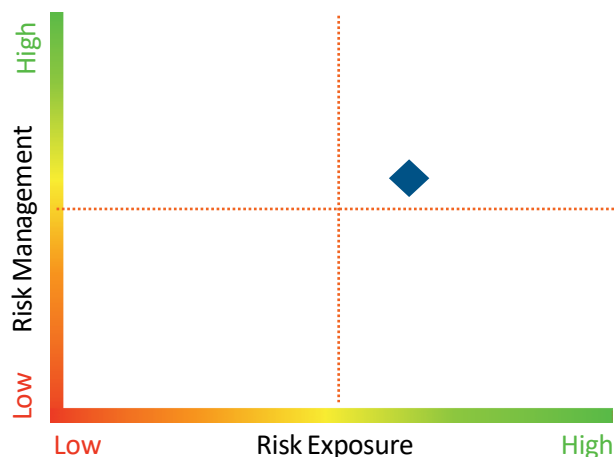




## Risk Dimension Analysis: Natural Hazards & Events

**Risk Exposure Score: 63**

**Risk Management Score: 66**



### Natural Hazards:

- Heavy monsoon rains in June-July 2023 triggered floods and landslides across states like Assam and Himachal Pradesh, causing loss of life, displacement, and infrastructure damage.
- Unconfirmed reports indicated Himalayan floods, potentially due to glacial lake outbursts, threatening lives, infrastructure, and hydropower plants.
- Scorching heatwaves from March to May 2023 led to health risks like heatstroke and dehydration, alongside exacerbating water scarcity and increasing energy demand.
- Across the country, natural disasters underscored the urgency for climate action and highlighted vulnerabilities in India's resilience.

### Pandemic and other global epidemic diseases

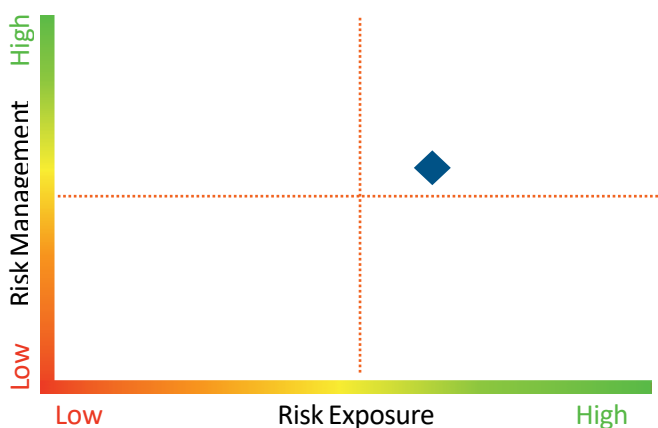
- With vaccination drives and the gradual reopening of economic activities, many sectors in India have witnessed a decline in the disruptive effects of the pandemic. Economic activities have resumed, and businesses are adapting to the new normal, indicating a reduced impact compared to the peak of the pandemic.
- Despite efforts towards recovery, India continues to grapple with the lingering economic effects of the pandemic, including challenges in restoring pre-pandemic employment levels and addressing disruptions in supply chains.
- While the peak of the pandemic may have passed, India's healthcare system still faces strains, with concerns over potential future waves of infections and the need for sustained efforts to strengthen healthcare infrastructure and resources.



## Risk Dimension Analysis: Strategic Risk

**Risk Exposure Score: 58**

**Risk Management Score: 60**



### Increased number of recalls and quality audits:

- In 2023, India witnessed a 15% increase in product recalls across various sectors, impacting both domestic and international markets.
- A surge in product recalls due to quality issues can harm consumer trust, brand reputation, and financial stability.
- Companies need to strengthen quality control processes across industries and implement predictive analytics and real-time monitoring to identify potential defects before they escalate.

### Resource scarcity / improper utilization / Overall Utilization:

- The gap between water demand and supply is projected to be 40% by 2030 in India.
- The annual demand for critical metals and minerals is anticipated to hit 450% of 2018 production levels by 2050.
- Companies need to promote efficient resource utilization and circular economy principles to counter risk of resource scarcity.

### Delay in execution of projects:

- The infrastructure and realty sector witnessed the delay in executing projects, the highest.
- India has 647 severely delayed infrastructure projects across various sectors.
- Prolonged project execution affects economic growth, investor confidence, and public welfare.
- Companies should streamline approval processes, improve coordination, and enhance project monitoring.

# ICICI LOMBARD:

## Key Solution Offerings



### Property

Evaluation of various risks to understand areas for improvement, such as fire preparedness, electrical safety, safety & emergency preparedness, maintenance and house-keeping, etc. By evaluating risks, we can identify potential hazards and advise on mitigating risks.

- **Property Loss Prevention:** We believe users should carry out detail risk visit followed by benchmarking of the industry good practices (Industry Risk Profiling). For instance, industries such as chemicals & petrochemicals impose a major challenge in manufacturing due to inherent risk. We recommend solutions for “Low Focus - High Loss Areas. This can help in minimizing severity losses. All the risk recommendations are grouped into four different segments based on cost-impact matrix and the priority is decided accordingly. Key decision makers at user’s end can ensure to get recommendations implemented.
- **Comprehensive Risk Assessment (CRA):** A Comprehensive Risk Assessment is a systematic approach to electrical safety specially designed for industries to evaluate potential hazards and recommend improvements, coupled with savings. It is an important tool for identifying risks, severity of hazards and avoid incidents arising out of electrical faults.
- **Electrical Risk Assessment (ERA):** An Electrical Risk Assessment is a basic solutions focused towards electrical safety designed to evaluate potential hazards and recommend improvements. Majority of fires in India are caused due to electrical installations. Ensuring safety of electrical installations of industrial unit or organization is critical to reduce risk and ensure safety compliance with Safety Standards and Regulation. ERA is an important tool which have 6 inbuilt activities such as Electrical Audit & Thermography built in with other such solutions.
- **Fire Hydrant IoT:** Fire hydrant monitoring is an automated solution that monitors key parameters such as Hydrant and Sprinkler line pressure, Main and Jockey pump on-off status. These can be interpreted to provide intelligence on unauthorized usage of water and leakage. This information pertaining to breach of above mentioned parameters is notified through dashboard & email alerts. Monitoring of such system is essential as these fire fighting systems are lifeline during any emergency.
- **Temperature & Humidity IoT:** Provides end to end plug & play ambient temperature and humidity monitoring Solution to manage temperature and humidity-controlled environment more efficiently. It generates - Automated reports (historical trends for different locations etc.). Intelligent Alerts - SMS & emails is sent to the concerned (one or multiple) stakeholders in case any anomaly.
- **Electrical IoT:** Electrical IoT is a patented solution (ILGIC Patented Solution) to avoid any instances of short circuiting due to abnormal voltage & current conditions. These are mainly built for application in warehouses. This solution has been created as these locations are having huge stocks with lesser manpower during emergencies mainly during non-business hours. The device automatically cuts off power in case of abnormality & restarts back when situation is normal.

- **Ultrasound technology for Gas Leak Detection:** Use of ultrasound technology for leak detection in process lines. The methodology recommends a non-destructive way of avoiding losses with no downtime. The main objective is to identify the leakages in all pressurized systems including pipelines by using ultrasound technology and tag them for rectification. It also includes listing leaks with individual CFM losses and cost savings possible. The outcome of the exercise will help the plant maintenance team to rectify the leaks and reduce the energy cost. This will also improve the process parameters and production quality.
- **Fire Mitigation Solutions:** Solutions have been designed based on their specific needs, keeping in mind the level of awareness and complexity of the location. These best in class solutions which are installed at correct places by risk assessors.
- **Renewable Solutions:** In line with our philosophy for recommending business solutions, we recommend advise on efficiency measurements for wind and solar power generating assets. Drones are used to provide high accuracy and the quick reach which is not possible through any traditional methodology. User get to know about the low performing module and ways to improve the same within the entire solar plant with latlong identification. We recommend advanced drone-based technology for inspection of wind turbines and solar PV modules.



## Marine

In the dynamic realm of marine insurance, cargo faces a myriad of risks, from unpredictable weather conditions to unforeseen accidents, safeguarding against potential challenges at sea is paramount.

- **MLCE (Marine loss control engineering):** Frequent occurring losses due to Peril such as accident, wet damage, theft, non-delivery, pilferage, hijack of consignments, mishandling shall be examined with ground inspections, root cause analysis with MIS, claim assessment reports.
- **Technical engagements:** Uncertainty of the risk associated with the transit can be concluded with marine experts. Risk assessment of cargo from packing, handling, lifting, securing, transit and final delivery methodology shall be discussed with the logistics team. Vessel selection, stowage and securing methods can be jointly discussed with the User's logistics team for a safe transit, dispatch and delivery coverage after assessing the risk on desktop with a virtual or F2F engagement and / or a ground visit.
- **Transit Telematics:** With the government's constant agenda of upgrading to digitalized operations by introducing ULIP and NITI Aayog mode of operations, not having a visibility of transit will hamper your logistics operations. IOT and SAAS based products incorporating the design of a cost efficiency and loss mitigation system can help enhance delivery with safe operation. Additionally, a 24\*7 risk control station and detailed post hijack recovery case studies is recommended to effectively monitor and mitigate theft / pilferage prone dispatches and ensure a safe transit delivery. Be it a temperature-controlled cargo, expensive cargo in transit or liquid bulk cargo in lorry tankers, it is essential to mitigate the risk and losses that might occur due to accidents caused by fatigue, unexplained conditions, or theft.





## Liability

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The growing adoption of technology in organizations has not only led to crucial data being stored and processed on digital platforms but also facilitated the automation of operations, thereby enhancing business efficiency. However, this shift also amplifies cyber risk, exposing sensitive information to potential threats and rendering organizations vulnerable to financial losses, reputational damage, and legal liabilities. As organizations delve deeper into the digital realm, fortifying cybersecurity measures becomes imperative to safeguard operational integrity and protect critical data from unauthorized access or breaches.

- **Phishing Simulation:** Experience cutting-edge phishing simulation tests to fortify your organization's defenses against cyber threats. You can enable phishing attack simulations to educate your employees on identifying and handling potential risks. Through engaging and interactive scenarios, you can raise awareness and equip your team with the necessary skills to detect and thwart phishing attempts.
- **Awareness Campaigns:** With Cyber Awareness Campaigns, you can go beyond just educating organizations about cybersecurity. The campaigns are meticulously designed to empower your team with essential best practices, insights into global incident trends and a comprehensive understanding of potential risks. Interactive designs help you captivate and engage your employees, fostering a cyber-aware culture within your organization. Customized campaigns can perfectly align with your unique needs and requirements and stay informed and vigilant.
- **Incident Response and Readiness:** A bespoke service that fortifies organizations with robust processes and clear communication channels for proficient cyber-incident management. This recommendation not only trims down the incident response time but also facilitates prompt, accurate action within the crucial initial hours. By meticulously assessing your organization's incident response policies and sculpting response systems in alignment with global industry benchmarks, this ensures you are thoroughly prepared to tackle the evolving digital threat landscape.
- **CXO's Session:** CXO's Session service provides immersive training sessions, personalized coaching & interactive discussions to empower your CXOs with cybersecurity knowledge that aligns with your business objectives. The subject matter experts recommend strategic guidance and in-depth insights into the ever-evolving threat landscape, translating technical jargon into practical language. Regular cybersecurity forums facilitate peer-to-peer learning and benchmarking against industry standards. CXO- focused approach ensures a cyber-aware leadership team that drives your organization's success securely into the future.
- **Weekly Threat Intelligence Bulletin:** Stay ahead of cyber threats with the Weekly Threat Intelligence Bulletin. We meticulously curate this comprehensive bulletin, providing timely insights on emerging threats, vulnerabilities, and attack trends. Delivered directly to your inbox, it recommends proactive advantage by promptly identifying potential risks. With continuous updates and ongoing support, you can confidently adapt your Defence strategies to combat the most sophisticated threats. It enables you to make informed decisions and protect your organization from emerging threats with Weekly Threat Intelligence Bulletin.

- **Email Security:** Safeguard your organization's communication channels with the Email Security solutions. We recommend robust measures to protect against phishing, malware & other email-borne threats. The advanced email filtering and authentication technologies prevent malicious emails from reaching your users inbox. Implementing encryption protocols to ensure the confidentiality of sensitive data in transit is a good idea. With real-time monitoring and threat intelligence, email security measures provide proactive Defence, detecting and blocking suspicious activities promptly. You can protect your organization's reputation and sensitive information with comprehensive Email Security measures, ensuring a secure and reliable email environment.
- **Agent-less Patching:** Agent-less patching platform for companies and MSMEs who want a rapid solution to distribute critical security updates and vulnerability fixes without causing system downtime. The patching platform not only assists with patch deployment, but it also enables your system administrator in understanding the patches, Adjustments & impact of the patches on the system. Before applying the patch, the software generates a warning if the system requires downtime or a reboot. You can experience a hassle-free patching process with the platform recommending enhanced security for your organization.
- **EDR/MDR Services:** Elevate your organization's cybersecurity capabilities with the Endpoint Detection and Response (EDR) and Managed Detection and Response (MDR) services. These advanced solutions provide continuous monitoring, rapid threat detection & effective incident response, safeguarding your digital assets in real-time. With EDR, proactively detect and respond to threats at the endpoint level, while MDR service offers 24/7 monitoring and expert support. You can strengthen defenses against the most sophisticated cyber-attacks with EDR/MDR services, ensuring a resilient and secure digital environment.
- **All-in-one Operating System:** All-in-One Operating System is a true game-changing platform that provides a fortified desktop environment to foster secure collaboration and centrally managed cybersecurity resilience. Inbuilt endpoint security serves as a vigilant guard, blocking potential dangers. Effortless IT management provides with a user-friendly interface, leading to significant cost savings in IT infrastructure. It provides in-built end-point security, automated updates and patches along with extensive device reports. Organizations can unlock a secure and prosperous future by embracing the All-in-One Operating System in their IT infrastructure.
- **Cyber Risk Management & Compliance Dashboard:** Gain a clear understanding of your organization's cyber risk exposure with Cyber Risk Management & Compliance Dashboard. This powerful tool assesses your risk posture, quantifies potential financial Impact & evaluates compliance with industry standards and regulations. Armed with this information you can make informed decisions to prioritize cybersecurity investments and ensure compliance with relevant laws and regulations. The intuitive dashboard provides a comprehensive view of your cybersecurity performance enabling data-driven decision-making. This solution enables organizations to stay ahead of threats and ensure a resilient cybersecurity posture.
- **Security Score Card:** Track your organization's cybersecurity performance with a dynamic Security Score Card solution. This comprehensive rating provides a clear overview of your security posture, highlighting areas that require attention and improvement. It empowers data-driven decisions, allowing you to focus on strengthening key areas. Identify potential risks and compliance gaps with industry standards and regulations. With actionable insights, you can prioritize cybersecurity investments effectively, ensuring a robust and resilient Defence against cyber threats. This Security Score Card solution can be your strategic tool to proactively elevate your cybersecurity posture.

- **VAPT:** Enhance your organization's cybersecurity defenses with the Vulnerability Assessment and Penetration Testing (VAPT) service. Skilled professionals conduct rigorous assessments, simulating real-world attacks to identify potential vulnerabilities in your digital infrastructure. With detailed insights, you can fortify your defenses and proactively address weak points before malicious actors exploit them. This service goes beyond identifying vulnerabilities, you also get actionable recommendations to mitigate risks effectively. Organizations can be one step ahead of cyber threats, ensuring the security and resilience of your critical assets with the comprehensive VAPT service.

## Engineering

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In engineering risk management, it's vital to adopt a holistic approach that extends beyond immediate concerns to proactively tackle potential risks and uncertainties. Drawing upon considerable expertise in claims handling and risk evaluation, a robust and customized protection strategy can be ensured. Construction endeavors face a myriad of risks such as floods, cyclones, impact damage, fires, theft, and collapse. However, the adverse effects of these risks can be mitigated through the implementation of extensive loss prevention measures specifically tailored for engineering projects.

- **Engineering Loss Prevention Exercise (ELP):** To effectively manage losses in Engineering Risk, fostering a culture of loss prevention is crucial. It's widely acknowledged that each construction project is distinct, presenting specific challenges related to geography, geology, occupancy, and construction methodology, which in turn result in unique associated risks. To cater this challenge a specific risk management framework which deals about the unique requirement of each project could be created for the loss minimization with reference to some parameters of distinctive research and industries best practices.
- **Drone Solutions:** In recent years, the construction industry has undergone significant changes due to the introduction of drone-based construction solutions. These cutting-edge technologies are transforming the planning, design, and execution of construction projects. A major benefit of drone technology in construction is its capacity to conduct aerial surveys, providing extensive coverage and detail. Drones, equipped with advanced cameras and sensors, can rapidly capture precise images and data, offering project managers valuable insights into site conditions. This data can facilitate project planning, cost estimation and design optimization by providing a comprehensive understanding of the project's parameters.
- **CPM - Fleet & Fuel Management:** An advanced GPS-equipped sensor is available to precisely measure direct fuel consumption, evaluate engine efficiency, and detect potential tampering of diesel engines in both mobile vehicles and stationary machinery. This solution enables real-time alerts for service reminders and critical health issues, facilitating prompt resolutions and enhanced utilization. Additionally, it offers valuable insights into machinery and equipment performance through comprehensive analyses, resulting in optimized inventory usage and increased efficiency.



## Health

We highly recommend exploring proactive and preventive healthcare solutions, which can make a significant difference in maintaining good health. Recognizing that majority of in-patient department (IPD) admissions could be prevented with timely interventions and regular healthcare, it is important to focus on health, not just during illness.

- **Pioneering Digital Platform:** We recommend exploring digital health innovations offered by industry leaders, which provide cutting edge health solutions through the IL TakeCare (ILTC) app. Our platform has transformed the way health services are delivered by introducing a fully digital and cashless Outpatient Department (OPD) and Wellness Program.
- **Health Advisory Services:** We recommend a suite of health advisory services on the IL TakeCare app. Users can access health risk assessments, diet and exercise trackers, health parameter tracking and trends and sleep, meditation & hydration reminders. In addition, the platform recommends a feature to upload health records up to 1GB, and provides informative health blogs.
- **IL TakeCare App:** IL TakeCare app is a One-Stop-Solution for users with insurance needs. This robust user engagement is a testament to the high-value features that the app provides. Unique to the app is the innovative self-health assessment feature, which includes Face scan technology that can measure blood pressure, heart rate, cardiac variance, and SpO2 levels. The platform provides seamless teleconsultations with medical practitioners and specialists, and even recommends access to mental wellness experts to the insured. The facility for cashless OPD services and the efficient claim settlement process further enhance user experience. By encapsulating a wide range of state-of-the-art health services and solutions, the IL TakeCare platform revolutionizes corporate health management and serves as a comprehensive digital health solution.





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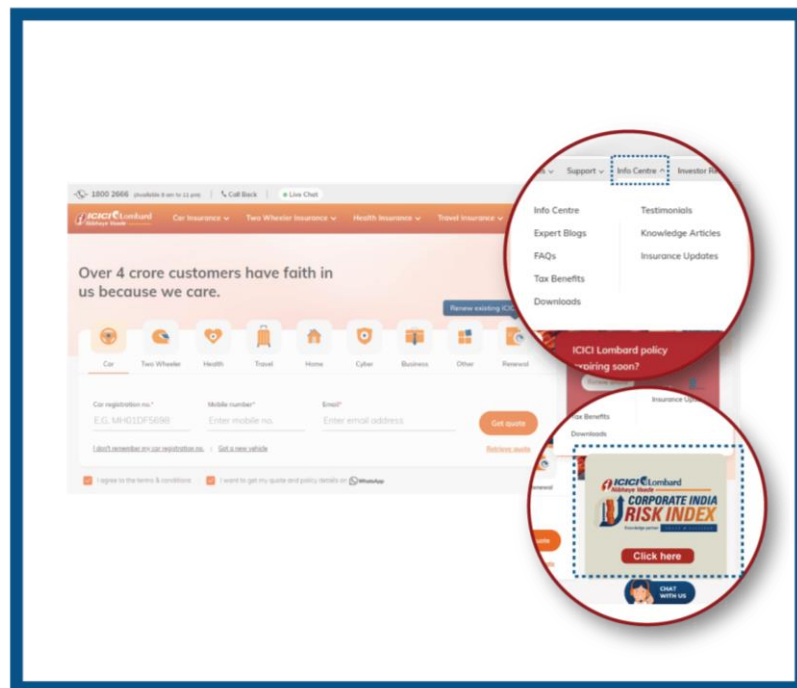






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