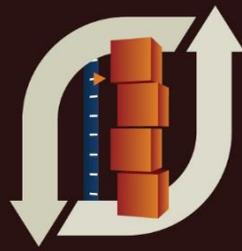


**i ICICI Lombard**



# **CORPORATE INDIA RISK INDEX**

2024

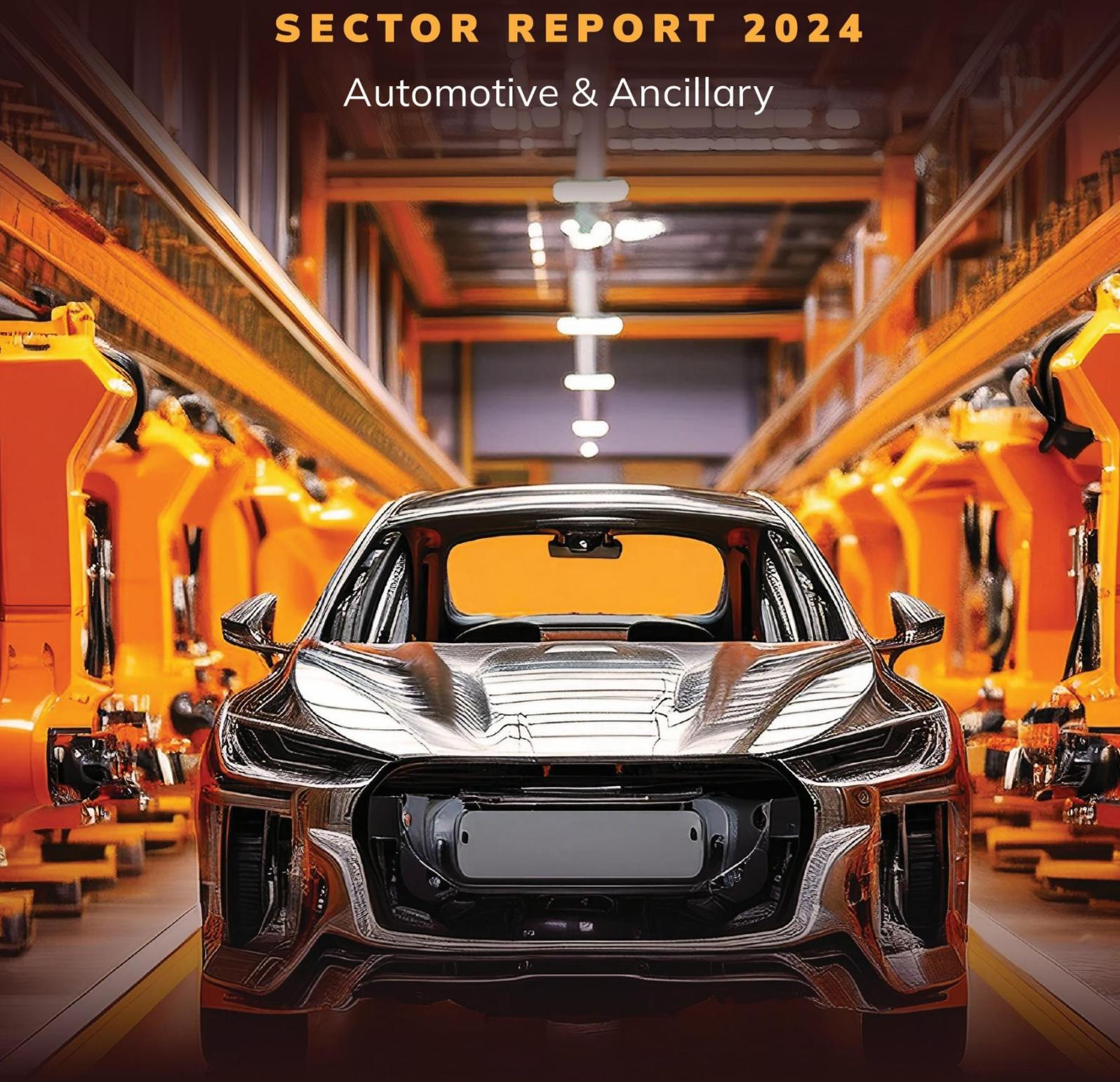
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FROST & SULLIVAN

Navigating Risks, Powering India's Growth

## **SECTOR REPORT 2024**

Automotive & Ancillary



# Table of Contents

Preface	3
Executive Summary	4
Introduction	5
Bottom-Up Risk Assessment Approach	10
Defining the Risk Scale	12
India - Resilient Growth and Superior Risk Management	15
India Showcasing an Optimized Risk Handling	17
Automotive & Ancillary Sector Insights 2024	20
Automotive & Ancillary Sector Risk Index 2024 Vs 2023	21
Key Highlights	22
ICICI LOMBARD: Key Solution Offerings	35
Bibliography	42

# Preface

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Corporate India Risk Index is primarily an academic exercise to understand the level of risk that companies are facing and also 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 of 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.

# Executive Summary

In 2024, India's automotive and ancillary sector demonstrated strong resilience and growth, driven by technological advancements, government support, and an increased focus on electric vehicles (EVs) and sustainability. The sector has evolved rapidly, with automakers embracing digital transformation, innovating in EV technology, and responding to shifting consumer demands. Despite global challenges, the industry has made remarkable strides in adapting to new trends and aligning with India's sustainable growth vision, strengthening its position in both domestic and international markets.

However, the sector faced several risks that required strategic responses. Supply chain disruptions, particularly the global semiconductor shortage, affected vehicle production timelines and delivery schedules. To mitigate this, companies diversified their supplier networks, invested in digital tools for real-time tracking, and explored vertical integration. Economic pressures also impacted consumer demand, with high vehicle prices and inflationary challenges leading to delayed purchases. To address affordability concerns, manufacturers offered flexible financing options and expanded their pre-owned vehicle programs. The transition to EVs remained both a challenge and an opportunity, with companies focusing on expanding charging infrastructure, improving battery technology, and educating consumers on the long-term benefits of EV adoption.

Additionally, regulatory changes related to emissions standards prompted automakers to invest in alternative fuels, circular economy practices, and sustainable manufacturing processes. The adoption of AI, machine learning, and software-defined vehicles played a key role in transforming vehicle technology, enhancing customer experience, and optimizing manufacturing. Through innovation and adaptability, the Indian automotive sector continues to navigate these risks effectively, ensuring long-term sustainability and competitiveness in a rapidly evolving landscape.

# Introduction

ICICI Lombard Corporate India Risk Index is a one of its kind, unified, credible, standardized corporate Risk Index that spans over the country level, the industry level, and the company level. The index has a comprehensive sector coverage. Aerospace and Defence, Agriculture and Food Processing, Automotive and Ancillary, BFSI, Biotech & Life sciences, Chemicals and Petrochemicals, Education Skill Development, Energy, FMCG, Healthcare Delivery, Infra and Realty, IT/ITES, Manufacturing, Media and Gaming, Metals and Mining, New Age & Startup, Pharmaceuticals, Telecom and Communication Technology, Tourism and Hospitality, Transportation and Logistics.



The impact is identified across key business risk (internal and external) under the following 'Strategic Risk Areas', The ICICI Lombard Corporate India Risk Index Framework comprises of 32 risk elements across 6 broad dimensions.

## Market and Economic Risk

Corporate Risks arising due to market and economy related factors, such as internal or external political uncertainty, global slowdown, taxation-regulatory changes etc. Market and economy related risks are also identified as 'Systematic Risks', we have further classified the risks into below mentioned categories.

- **Inflation:** Inflation is the general increase in prices within the economy. The rising prices for businesses could result in bigger production spending and a fall in profitability. The companies should be attentive, acute, and responsive to changes in inflation to efficiently manage the prices of final products.
- **Taxation:** In a large democracy like India, complexity of multiple taxes (multiple taxes like GST, custom duties, central excise duty, etc.) is a major concern. The changing legislations, increased scrutiny by tax authorities and increasing public attention are together resulting in tax risks for organizations. There is, thus an increasing urgency for firms to manage their tax affairs efficiently to minimize tax risks.

- **Regulatory Risks:** Regulatory risk is the risk of changes in regulations and laws that might affect an industry or businesses. 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 from 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 market.

## Technology Risk

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Technology risks are also identified as information technology related risks which 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 stoppage of entire computer or operating systems creating substantial losses to business.

# Operational and 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 businesses operations. An untimely equipment breakdown can bring businesses to a standstill or be the root cause for fires and explosions. Mostly, human errors and deferred maintenances are the major reasons for such breakdowns. The companies should actively invest in 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 creating 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 larger 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, Workplace Injuries
- **Human Resource:** Key person risk: This risk occurs when a business or business unit becomes heavily reliant on a key individual. Talent acquisition and retention - The companies require a highly skilled labor force for R&D as well as continuous production. Accessing skilled resources and 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, and security (SHE/Sustainability risk).

- **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, Malwares and Viruses, Piracy, Fraud, Corruption, Malicious attacks
- **Counterfeiting:** Counterfeiting of goods/services leads to loss of revenues, profits and ultimately affects the brand equity
- Threat to Women 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 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 rise in GHG emissions, loss of biodiversity, deforestation, and degradation of environment. 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 global pandemic scale events like the COVID-19 pandemic

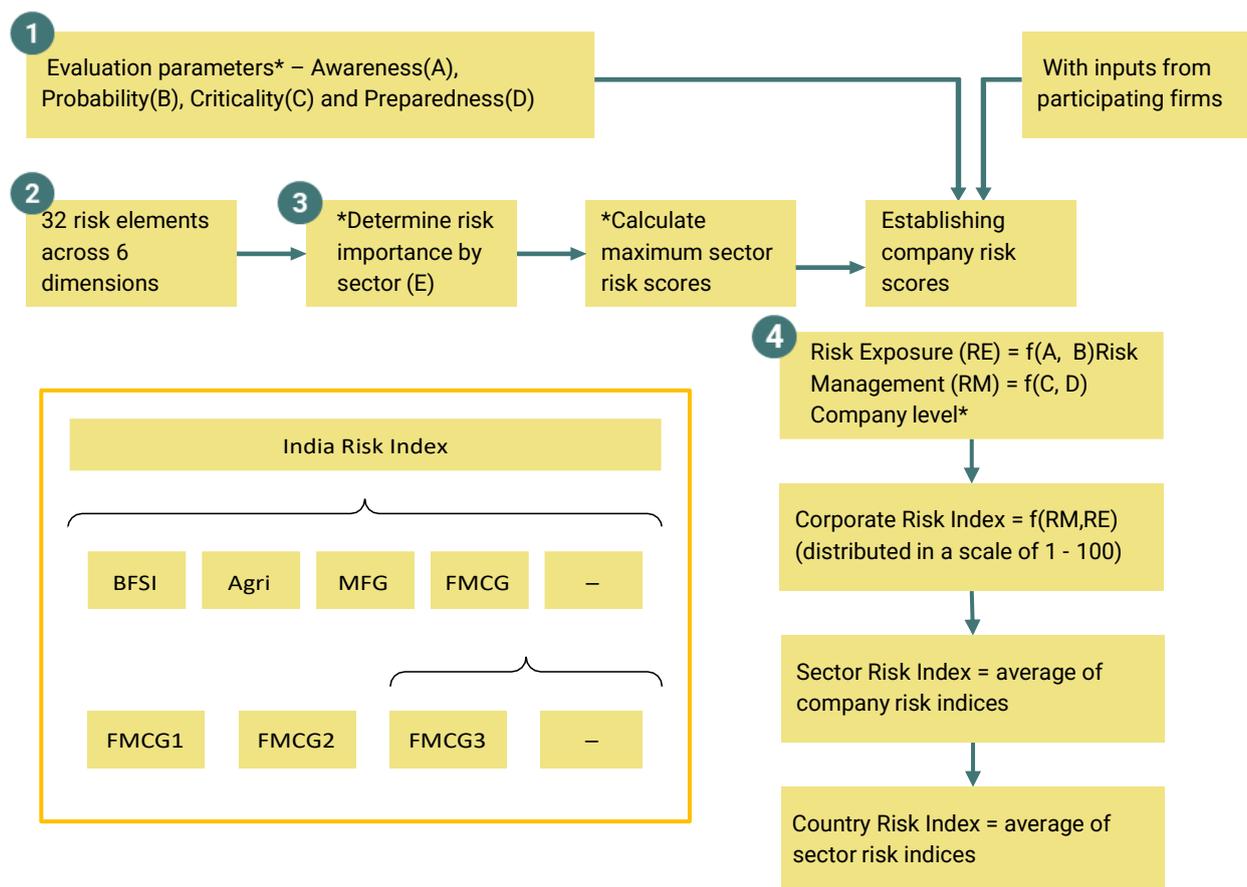
## Strategic Risk

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Strategic risk is the risk of undesirable outcomes of business decisions which may impact 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 / Misutilization / Overall Utilization:** Difficulties in acquisition of land, water, fuel, or other resources for operations of business.
- **Public Sentiment:** Current events playing out in the public scene can change the 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 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 - 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 element is established against individual sector based on the published corporate risk reports, in depth sector

understanding by F&S team and SMEs.

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

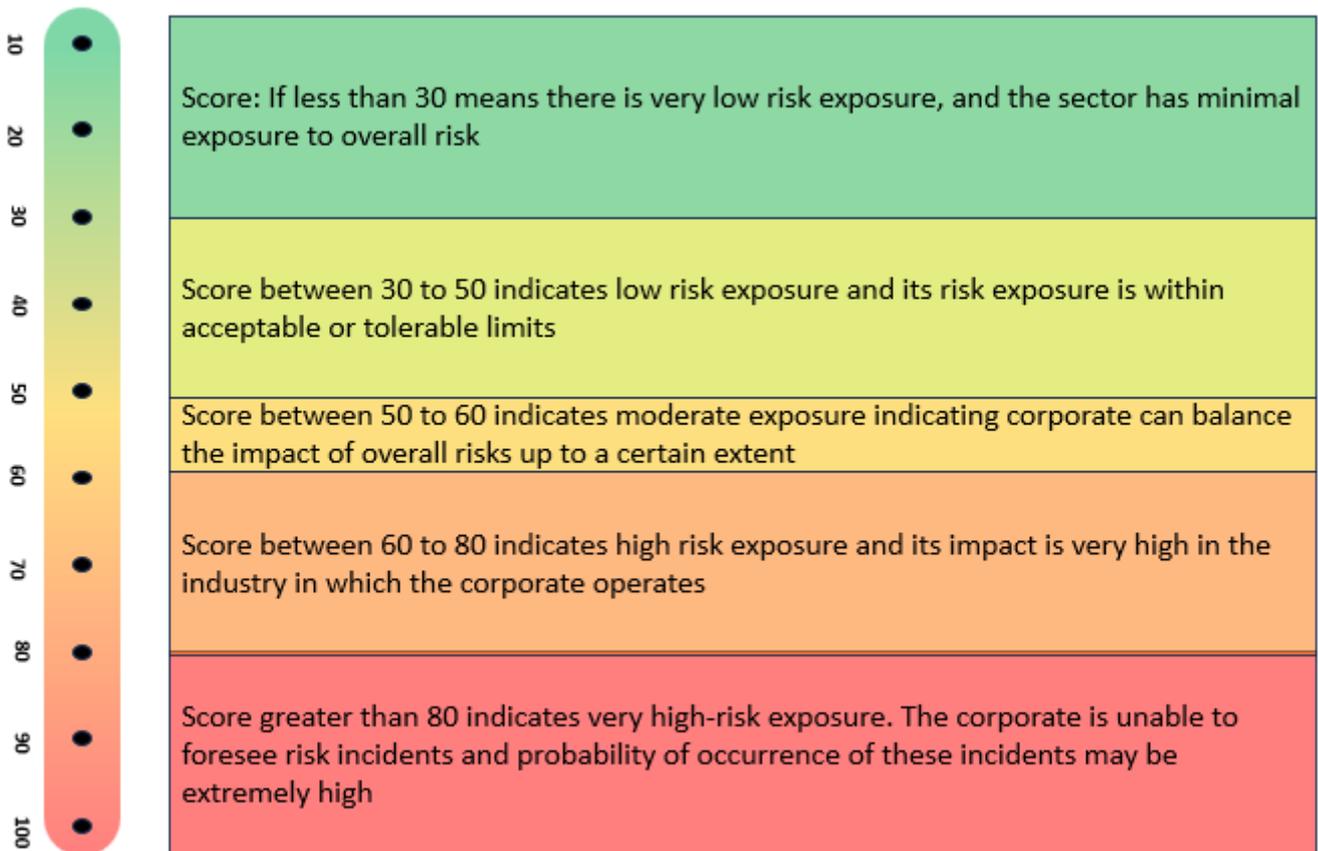
We have selected 20 sectors to understand the current stand of our country today in terms of risk. Risk for various sectors is measured on the risk exposure scale and risk management scale.

## 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.

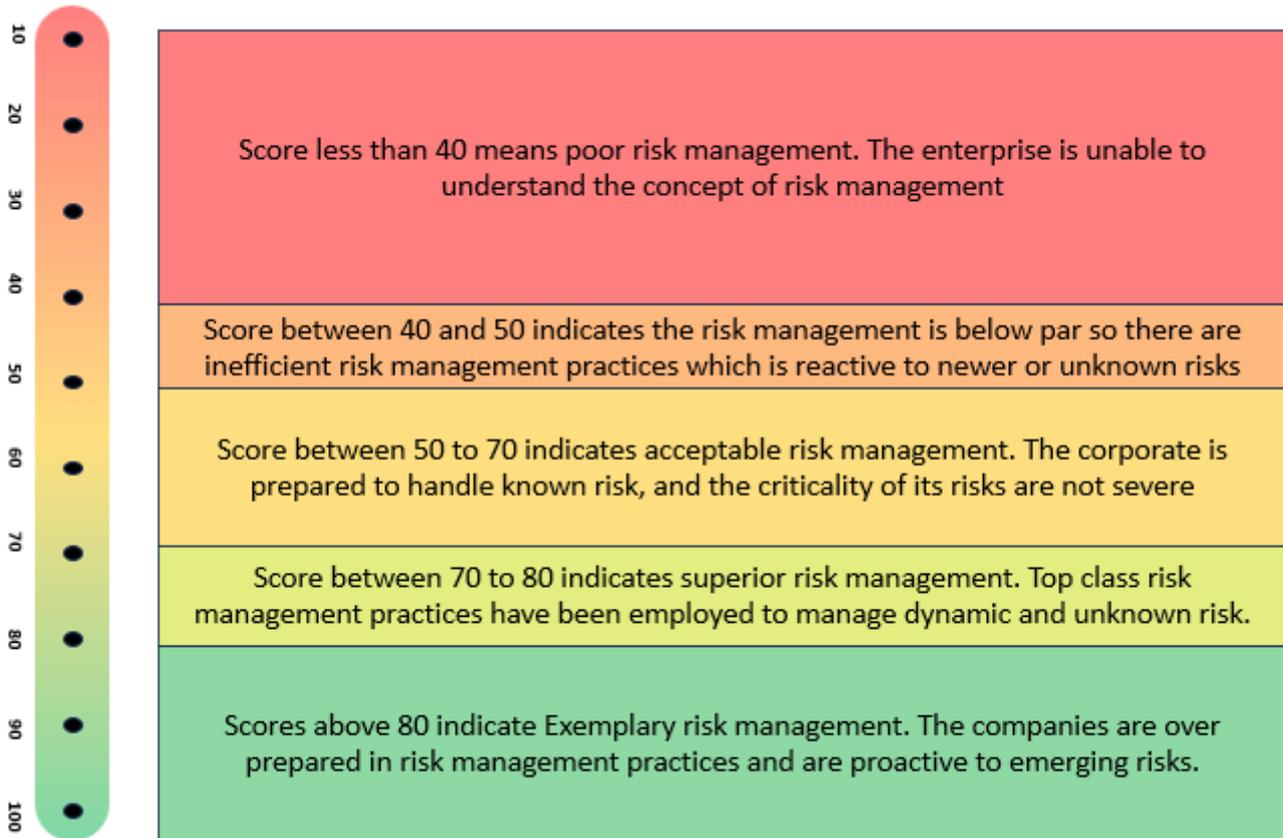


## B. ICICI Lombard Corporate Risk Management – Scale

**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 the Corporate Risk Management.

The risk management scale works in the opposite to that of the risk exposure scale.

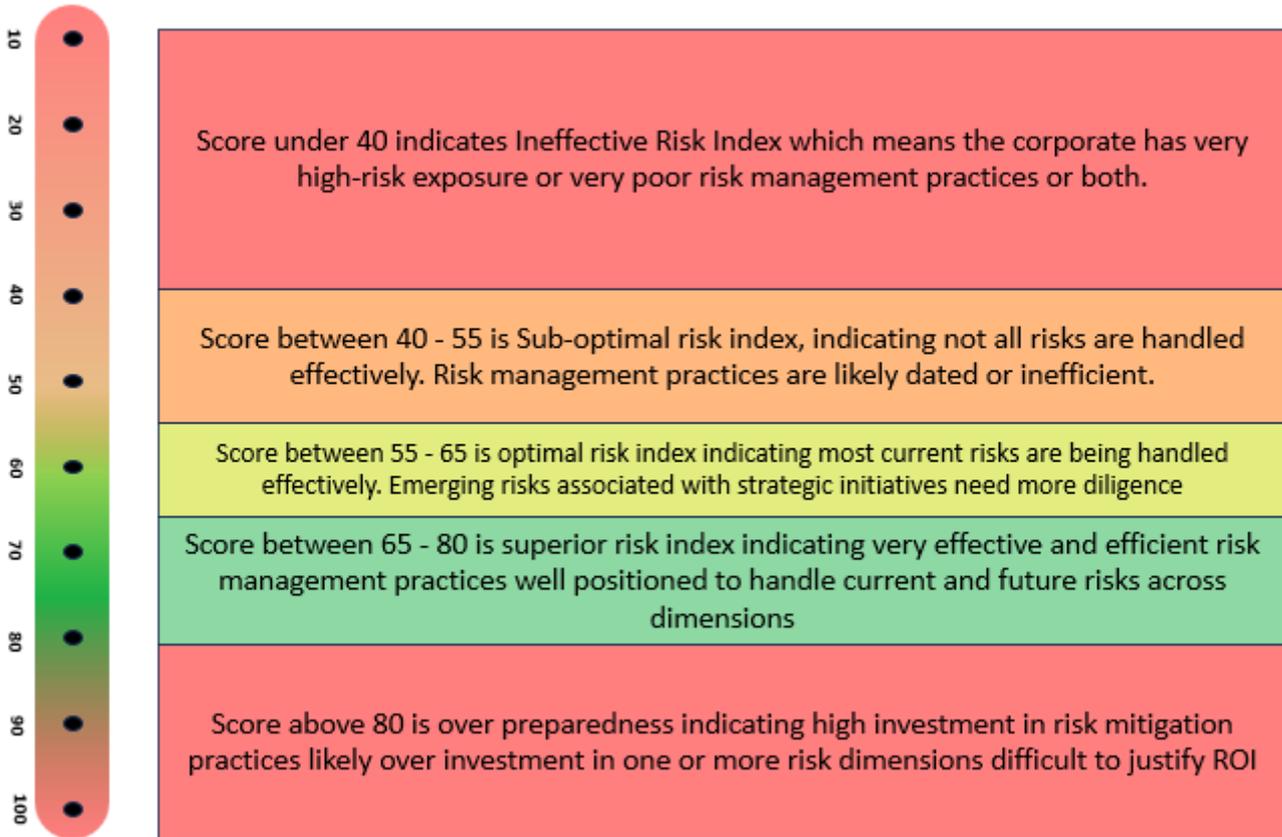
Let’s look at the risk management scale.



### 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 - Resilient Growth and Superior Risk Management

In 2024, India's diverse sectors demonstrated significant growth and resilience, leveraging technological advancements, strategic reforms, and proactive risk management to navigate an evolving economic landscape. Despite global challenges, industries embraced innovation, digital transformation, and sustainable practices, positioning themselves for long-term success.

In this year, the integration of Artificial Intelligence (AI) across various sectors presented both significant opportunities and risks. While AI-driven innovations enhanced productivity, decision-making, and customer engagement, the adoption also raised concerns around data privacy, cybersecurity, and workforce displacement. India navigated these risks by implementing robust data protection regulations and promoting AI ethics in the development and deployment of technology. Additionally, the government and private sector invested in reskilling programs, ensuring the workforce was equipped to adapt to the evolving digital landscape. AI's strategic implementation across sectors like BFSI, healthcare, and manufacturing helped India enhance operational efficiency while balancing the challenges posed by rapid technological transformation. The Aerospace & Defence sector saw substantial advancements as India attracted global aerospace companies seeking to strengthen supply chains. Local firms expanded their capabilities, particularly in the growing private space sector, driving both revenue growth and global competitiveness. The Agri & Food Processing sector turned to precision farming and AI-driven analytics to enhance productivity, while renewable energy solutions like solar-powered cold storage reduced post-harvest losses, improving sustainability and efficiency.

In the Automotive sector, the shift toward electric vehicles (EVs) gained momentum, supported by government schemes aimed at promoting EV adoption. Major manufacturers expanded their EV portfolios, addressing both sustainability goals and evolving consumer demands. The BFSI sector continued its digital transformation, with AI integration enhancing fraud detection and compliance, further improving security and efficiency.

The Biotech & Lifesciences sector experienced accelerated growth, particularly in genomics and vaccine development, with India solidifying its role as a global leader in pharmaceutical manufacturing. The sector's innovation, supported by public and private investments, enhanced healthcare technology and medical devices. In Chemicals & Petrochemicals, India attracted significant investments to meet rising demand, driven by growing consumption from its expanding middle class, while the Education sector embraced AI and digital learning platforms, expanding access to quality education and equipping the workforce for future demands in emerging technologies.

The Energy sector made substantial progress towards sustainability, with a focus on renewable

energy, including ultra-mega solar parks and offshore wind projects. These initiatives were supported by favorable government policies and decreasing costs of clean energy technologies. The FMCG sector adapted to inflationary pressures by shifting focus towards premium products and e-commerce platforms, which were increasingly driving sales, particularly in rural markets.

In Healthcare, there was significant growth fueled by digital innovations such as telemedicine and AI-driven diagnostics, which helped improve access and efficiency in healthcare delivery. India also continued to strengthen its position as a global hub for medical tourism, offering competitive treatment options. The Real Estate sector benefitted from increased demand in affordable housing and infrastructure development, with commercial real estate seeing steady growth and an emphasis on sustainable building practices.

The IT sector continued to thrive despite global challenges, driven by demand for cloud services, cybersecurity solutions, and AI technologies. Tier 2 and 3 cities emerged as new tech hubs, with government support enhancing regional tech expansion. The Pharmaceutical sector saw an uptick in exports and domestic manufacturing, with reduced dependence on imports and new product launches in global markets bolstering its growth. In Manufacturing, India focused on boosting production through initiatives like the Production-Linked Incentive schemes, especially in electronics and EV manufacturing, which also contributed to job creation and supply chain resilience. The "China + 1" strategy adopted by global firms has played a pivotal role in shaping India's manufacturing sector. While it has increased risk exposure, it has also driven companies to invest in more sophisticated, globally relevant risk management practices, strengthening the sector's resilience and positioning India as a key player in global supply chains.

Media & Entertainment saw continued growth, with OTT platforms gaining popularity, especially in regional content. The Gaming industry also flourished, becoming a key revenue generator as mobile gaming gained dominance. In Steel and Mining, investments in decarbonization and digitalization allowed the sectors to reduce environmental impact and enhance operational efficiency. Startups saw substantial funding despite global slowdowns, with SaaS, fintech, and D2C brands leading the charge in innovation and market expansion.

The Telecom sector expanded 5G coverage and rural internet penetration, narrowing the digital divide and improving connectivity across the country. The Tourism & Hospitality sector rebounded strongly, attracting both domestic and international visitors, with eco-conscious travelers opting for sustainable tourism options and luxury experiences. Finally, the Logistics sector benefited from advancements in automation and multimodal connectivity, reducing costs and improving efficiency, while the government's National Logistics Policy streamlined operations, cutting transit times and enhancing cross-sector integration.

In summary, 2024 saw India's sectors display resilience and adaptability, addressing emerging risks through innovation, digital adoption, and sustainability initiatives. The country's ongoing focus on risk management, technological advancement, and strategic reforms has positioned its economy for continued growth and transformation, paving the way for India to solidify its place as a global economic leader.

# India Showcasing an Optimized Risk Handling



**Figure 2: Corporate India Risk Index 2024**

A score of 65 on the Corporate Risk Index indicates optimal handling of risk by the Indian companies. In 2024, India faced significant market, economy, and operational risks across various sectors, highlighting areas for improvement in the coming years. The year was further complicated by global events such as the ongoing Israel-Palestine conflict, which led to geopolitical instability and fluctuations in global oil prices. The rise of recession fears in major economies like the United States and Europe disrupted supply chains and created demand uncertainties, impacting Indian exports and manufacturing. Investor sentiment in India remains flat in 2024, reflecting the cautious behavior of Angel and VC investors globally. This persistent challenge, which has carried over from 2023, highlights ongoing risks in the market and underscores the uncertainty that continues to affect investment decisions in the country.

Additionally, India’s national elections increased risk exposure, with political uncertainty and policy shifts potentially affecting business operations, investor confidence, and sectoral reforms. These global and domestic challenges underscored the need for stronger risk management

frameworks and adaptive strategies across India's industries to navigate future uncertainties effectively.

In response to the heightened risks in 2024, companies across India have increasingly focused on strengthening their risk management frameworks. With the backdrop of global uncertainties, such as geopolitical conflicts and economic slowdowns, alongside domestic challenges like the national elections, businesses have prioritized proactive risk identification, mitigation strategies, and resilience-building measures. This shift reflects a broader trend of embedding risk management into corporate strategy, with an emphasis on agility, digital transformation, and sustainability.

As a result, sectoral risk indices have remained within the superior and optimal risk index range, demonstrating that most industries in India have effectively managed the challenges they faced. Through a combination of technological innovations, regulatory compliance, and strategic planning, sectors have been able to maintain stability and navigate both internal and external risks. This disciplined approach to risk management has ensured that, despite various pressures, India's sectors remained well-positioned for sustainable growth and continued progress in 2024.

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



**Figure 3: Corporate India Risk Index 2024 Sector Score**

### **Superior Risk Index**

Superior risk handling was found in nine industrial sectors: Pharmaceuticals, Healthcare Delivery, Automotive & Ancillary, Manufacturing, Metals & Mining, Telecom & Communication, BFSI, Tourism & Hospitality, and Transportation & Logistics.

### **Optimal Risk Index**

Optimal risk handling was found in 11 industrial sectors: Media & Gaming, FMCG, Infra & Realty, Agriculture & Food processing, Biotech & Lifesciences, IT ITES, Energy, New Age & Startup, Aerospace & Defence, Chemicals & Petrochemicals and Education & Skill Development.

# Automotive & Ancillary Sector Insights 2024

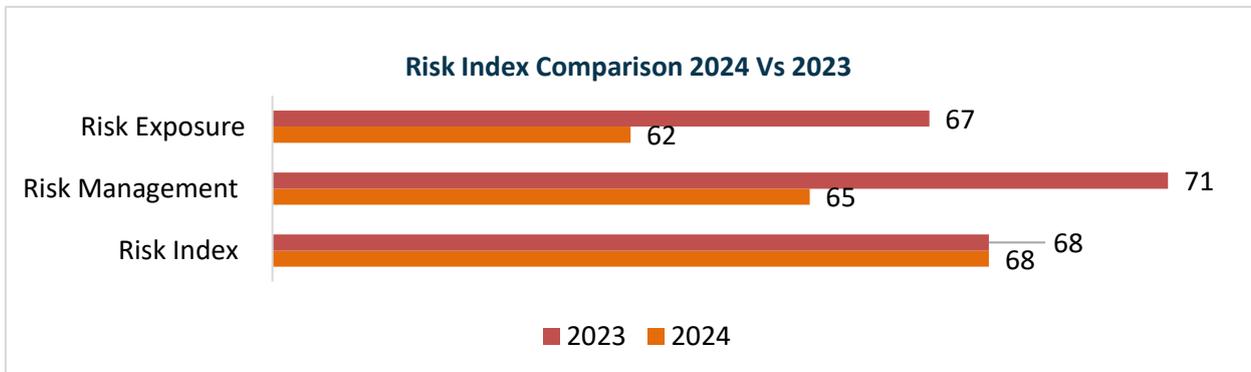
The automotive and ancillary sector is a vital component of the global economy, providing mobility solutions and supporting industries through the manufacturing of vehicles and essential parts. This sector encompasses automakers, component suppliers, and service providers, working together to deliver a seamless automotive experience. As technology advances and consumer preferences shift, the sector faces both unprecedented opportunities and significant challenges.

Automotive companies operate in a highly competitive environment driven by innovation, quality, and cost efficiency. With the growing adoption of electric vehicles (EVs), connected cars, and autonomous driving technologies, the industry is undergoing a transformative phase. This shift demands extensive investment in research and development, supply chain optimization, and digitalization to maintain competitiveness and sustainability.

The ancillary sector plays a crucial role in the automotive ecosystem, supplying essential components like tires, batteries, electronics, and safety systems. These suppliers ensure the seamless production of vehicles and contribute to innovation by developing advanced parts for next-generation automotive technologies. As automakers strive for enhanced performance, fuel efficiency, and sustainability, the demand for high-quality ancillary products continues to rise.

Despite its importance and potential for growth, the automotive and ancillary sector is subject to a broad spectrum of risks. From economic fluctuations and regulatory changes to technological disruptions and environmental concerns, these risks can impact production, profitability, and market positioning. Companies in this sector must adopt proactive risk management strategies, invest in innovation, and strengthen supply chain resilience to navigate the complexities of this dynamic industry.

# Automotive & Ancillary Sector Risk Index 2024 Vs 2023



**Figure 4: Detailed Comparative Analysis 2024 Vs. 2023**

## Automotive & Ancillary Sector Risk Index 2024 Vs 2023

The overall Risk Index for the sector remained stable at 68 from 2023 to 2024, owing to a balance between decrease in risk exposure and risk management

## Automotive & Ancillary Sector Risk Exposure 2024 Vs 2023

The reduction in risk exposure suggests that the sector managed to lower its exposure to major risks over the year. This could be due to improved supply chain diversification, investments in EV infrastructure, and the expansion of sustainable practices, such as alternative fuel technologies. Automakers also focused on minimizing risks associated with fluctuating demand through flexible consumer financing and robust pre-owned vehicle programs. Additionally, efforts to align with new regulatory frameworks for emissions may have also helped reduce environmental and compliance-related risks. As these strategies took hold, the sector was able to reduce its vulnerability to external and internal pressures.

## Automotive & Ancillary Sector Risk Management 2024 Vs 2023

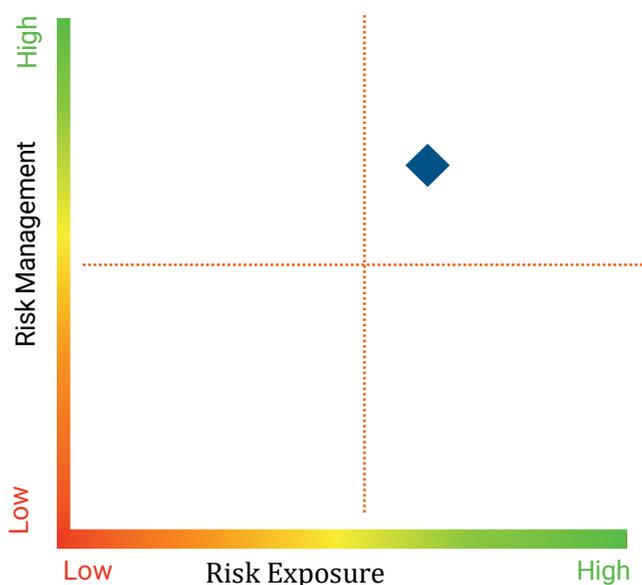
The drop in the risk management score indicates that while companies made significant progress in addressing risks, there may have been challenges in fully mitigating all risks. The industry faced considerable hurdles, such as global supply chain disruptions (like semiconductor shortages), fluctuating consumer demand, and the ongoing transition to electric vehicles (EVs), all of which may have strained the ability to manage these risks at an optimal level. Although companies took strategic actions, like diversifying suppliers, implementing flexible financing options, and investing in EV technology, there may have been gaps or slower-than-expected responses in some areas, affecting the overall effectiveness of risk management.

# Key Highlights

## Risk Dimension Analysis: Market and Economy

**Risk Exposure Score: 69**

**Risk Management Score: 71**



### Inflation

- Inflationary pressures lead to rising costs for raw materials, labor, and logistics, directly impacting vehicle production expenses. Higher prices for steel, aluminum, and semiconductor chips increase manufacturing costs and squeeze profit margins.
- As inflation affects consumer purchasing power, demand for automobiles may decrease, leading to lower sales volumes. This creates additional pressure on manufacturers to balance cost management with competitive pricing.
- To manage inflation risks, automotive

companies adopt strategic sourcing, negotiate long-term supplier contracts, and invest in cost-saving technologies. Efficient inventory management and price adjustment strategies also help mitigate the impact of inflation.

### Taxation Risk

- Frequent changes in corporate tax rates, import duties, and environmental levies create financial planning challenges for automotive manufacturers and suppliers. Tax policies impacting fuel efficiency standards and emission controls add further complexity.
- Taxation risks also arise from differences in tax regulations across international markets, increasing compliance burdens and operational costs for global automakers.

### Geopolitical Risks

- Political instability, trade wars, and shifting international alliances pose significant threats to

the automotive sector's global operations. Sanctions, tariffs, and import/export restrictions disrupt supply chains and increase costs.

- Geopolitical conflicts can lead to shortages of critical materials like semiconductors, affecting production timelines and vehicle availability. Such disruptions force companies to find alternative suppliers and adjust production plans.
- To address these risks, automotive firms diversify their geographic footprint and strengthen local partnerships. Developing regional supply chains minimizes dependency on politically unstable regions and ensures business continuity. These factors including the disruptions in Venezuelan oil production led to challenges in sourcing raw materials for the Indian chemical industry, affecting production costs and competitiveness.

### **Foreign Exchange Risk**

- The automotive sector operates globally, making it highly susceptible to currency exchange rate fluctuations. Changes in foreign exchange rates can increase costs for imported raw materials and components, directly affecting production expenses and vehicle pricing.
- Volatile currency rates also impact the profitability of exports, influencing demand in international markets. A strong domestic currency can make exports more expensive, reducing competitiveness abroad.
- To manage foreign exchange risks, automotive companies implement hedging strategies and establish operations in multiple regions to balance currency exposure. Flexible pricing models and diversified supply chains also help mitigate these risks. Middle East-based petrochemical producers faced margin pressures throughout 2023 due to volatile feedstock supplies and weak global demand. The uncertain global macroeconomic outlook added further pressure on product portfolios, impacting trade dynamics and potentially affecting foreign exchange rates.

### **Regulatory Risk**

- The automotive sector must comply with stringent safety, environmental, and labor regulations. Non-compliance can result in hefty fines, product recalls, and reputational damage.
- Evolving emission standards and safety regulations require continuous investment in technology and redesign efforts, increasing production costs and time to market.
- Automotive companies mitigate regulatory risks by adopting robust compliance frameworks, investing in employee training, and staying informed on evolving legal standards. Collaborative efforts with regulatory bodies help anticipate and address potential issues. Taxation risks also arise from differences in tax regulations across international markets, increasing compliance burdens and operational costs for global automakers.

### **Competitive Risk**

- Intense competition from established automakers and new entrants, especially in electric and autonomous vehicles, pressures companies to innovate and maintain cost efficiency.

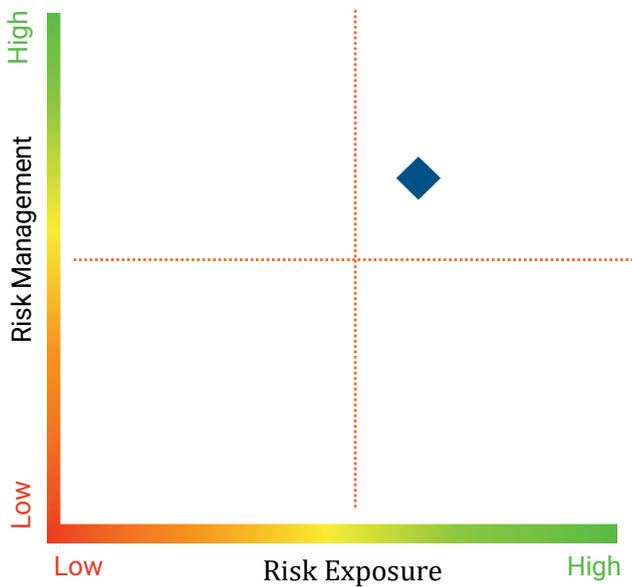
Differentiation through advanced technology and superior quality is crucial.

- Price wars and aggressive marketing strategies further squeeze profit margins, making it challenging to balance affordability with quality. Consumer loyalty shifts rapidly, demanding constant adaptation.
- Automotive companies invest heavily in research and development, expand product lines, and enhance customer experience to stay ahead. Collaborations with tech firms and startups drive innovation and competitive advantage.

# Risk Dimension Analysis: Technology

**Risk Exposure Score: 61**

**Risk Management Score: 64**



## Innovation Risk / Obsolete Technology

- The rapid pace of technological advancements requires continuous innovation. Companies failing to adopt emerging technologies risk product obsolescence and market share loss.
- High research and development costs strain budgets, especially when innovation timelines extend beyond expected windows of profitability.
- Automotive firms foster innovation through strategic partnerships, in-house R&D initiatives, and open innovation ecosystems.

Agile development models accelerate time-to-market for new technologies.

## Intellectual Property Risk

- Protecting proprietary technologies and designs is critical for maintaining competitive advantage. Intellectual property theft and counterfeiting undermine innovation investments.
- Legal battles over patent infringements distract from core operations and incur substantial costs. Insufficient IP protection limits market expansion efforts.
- Companies safeguard intellectual assets through patents, trademarks, and digital rights management. Collaborations with legal teams ensure swift action against infringements. The developments in the external value of intellectual property in the chemical industry, highlight potential implications for companies

## Disruptive Technology

- The automotive sector faces disruption from autonomous vehicles, electric powertrains, and digital connectivity. Rapid technological shifts demand continuous adaptation.
- Legacy systems and infrastructure struggle to integrate with emerging technologies, slowing innovation adoption. Disruptive competitors capture market share through agility.
- Automotive companies invest in digital transformation initiatives and collaborate with tech startups to stay ahead of industry shifts. Innovation incubators drive experimental development. The lack of availability of indigenous.

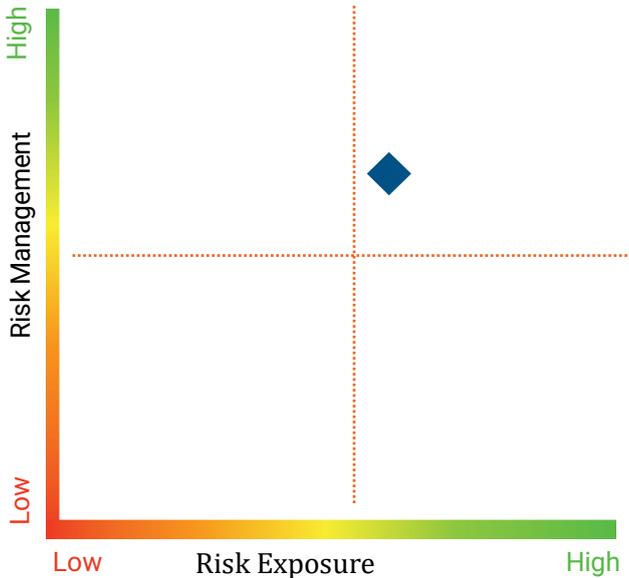
## Data Compromises

- Connected vehicles and digital ecosystems increase cybersecurity vulnerabilities. Data breaches expose customer information and compromise operational integrity.
- Ransomware attacks and intellectual property theft disrupt production and damage reputations. Regulatory scrutiny on data protection intensifies compliance pressures. Entering unfamiliar markets introduces regulatory and cultural complexities. Overextending resources strains financial stability.

# Risk Dimension Analysis: Operational and Physical

**Risk Exposure Score: 62**

**Risk Management Score: 69**



## Critical Infrastructure Failure / Machine Breakdown

- Manufacturing plants, logistics networks, and digital systems form the backbone of automotive production. Any failure in these infrastructures can halt operations and lead to significant financial losses.
- Cyberattacks targeting digital infrastructure pose an increasing risk, compromising production data and operational continuity. Physical infrastructure failures due to natural disasters exacerbate these challenges.

■ Automotive firms mitigate these risks through advanced predictive maintenance, redundant systems, and robust cybersecurity protocols. Investing in modernized facilities ensures resilience and minimizes downtime. Price wars and aggressive marketing strategies further squeeze profit margins, making it challenging to balance affordability with quality. Consumer loyalty shifts rapidly, demanding constant adaptation.

## Business Continuity / Sustainability

- The automotive industry faces threats from economic downturns, pandemics, and environmental changes. Ensuring operational stability during crises is essential for maintaining supply chain integrity and customer trust.
- Sustainability initiatives, such as reducing carbon footprints and adopting green manufacturing practices, align with regulatory requirements and consumer expectations. Companies that fail to prioritize sustainability risk losing market share.
- Automotive firms develop comprehensive business continuity plans, diversify supply sources, and invest in renewable energy solutions. Flexible production models enable swift adaptation to external shocks. Geopolitical conflicts can lead to shortages of critical materials like semiconductors, affecting production timelines and vehicle availability. Such disruptions force companies to find alternative suppliers and adjust production plans.

### Supply Chain Risk

- Globalized supply chains expose the automotive sector to delays, quality issues, and cost fluctuations. Dependence on single-source suppliers heightens vulnerability to disruptions.
- Shortages of critical components, like microchips, can halt production lines and extend delivery times. Logistics issues, including shipping delays and labor strikes, compound these challenges.
- To mitigate supply chain risks, companies adopt digital supply chain management tools and maintain buffer inventories. Strengthening relationships with multiple suppliers ensures a steady flow of material.

### Commodity Price Risk - Volatility in prices of raw materials

- Rising costs for essential materials like steel, aluminum, and lithium directly impact production expenses. Fuel price volatility further increases transportation costs.
- Inflation-driven material cost increases erode profit margins, requiring strategic price adjustments. Currency fluctuations amplify commodity price risks for globally sourced materials.
- Automotive companies negotiate long-term supply contracts and explore alternative materials to stabilize costs. Efficiency improvements in manufacturing processes help offset price increases. Sustainability initiatives, such as reducing carbon footprints and adopting green manufacturing practices, align with regulatory requirements and consumer expectations. Companies that fail to prioritize sustainability risk losing market share.

### Portfolio Risk

- Over-reliance on specific vehicle models or market segments exposes companies to demand fluctuations. Rapid shifts in consumer preferences, such as increased EV adoption, necessitate diversified offerings.
- Product recalls and declining model popularity exacerbate revenue instability. Balancing legacy production with innovative designs ensures long-term competitiveness.
- Automotive firms expand their portfolios through continuous market research and flexible production capabilities. Offering a mix of traditional, hybrid, and electric vehicles mitigates portfolio concentration risks. Cyberattacks targeting digital infrastructure pose an increasing risk, compromising production data and operational continuity. Physical infrastructure failures due to natural disasters exacerbate these challenges.

### Environmental Hazard Risk

- Natural disasters like floods, earthquakes, and wildfires disrupt production facilities and logistics networks. Climate change intensifies the frequency and severity of these events.
- Environmental regulations demand reduced emissions and sustainable practices, increasing compliance costs. Failure to meet green standards results in legal penalties and reputational damage.

- Companies invest in climate-resilient infrastructure and adopt eco-friendly manufacturing processes. Renewable energy usage and emission reduction initiatives align operations with global sustainability goals. The industry's high energy intensity, accounting for around 12-15% of total energy consumption in India, results in substantial greenhouse gas emissions, contributing to climate change

### **Workplace Accident**

- Manufacturing environments pose safety risks from heavy machinery and high-speed production lines. Workplace accidents lead to legal liabilities and operational disruptions.
- Employee safety issues affect morale and productivity, increasing turnover rates. Compliance with occupational safety regulations requires ongoing training and investment.
- Automotive companies prioritize safety through stringent protocols, advanced safety equipment, and regular audits. Promoting a safety-first culture enhances workplace well-being. Environmental regulations demand reduced emissions and sustainable practices, increasing compliance costs. Failure to meet green standards results in legal penalties and reputational damage.

### **Human Resource**

- The automotive sector relies heavily on skilled labor for manufacturing, research, and innovation. Shortages of qualified professionals can delay production schedules and compromise quality.
- High turnover rates and labor disputes exacerbate workforce instability, increasing training costs and operational disruptions. Employee retention becomes a challenge in competitive job markets.
- To address these issues, automotive companies invest in employee development programs, offer competitive benefits, and foster inclusive work environments. Partnerships with technical institutions also help build a steady talent pipeline.

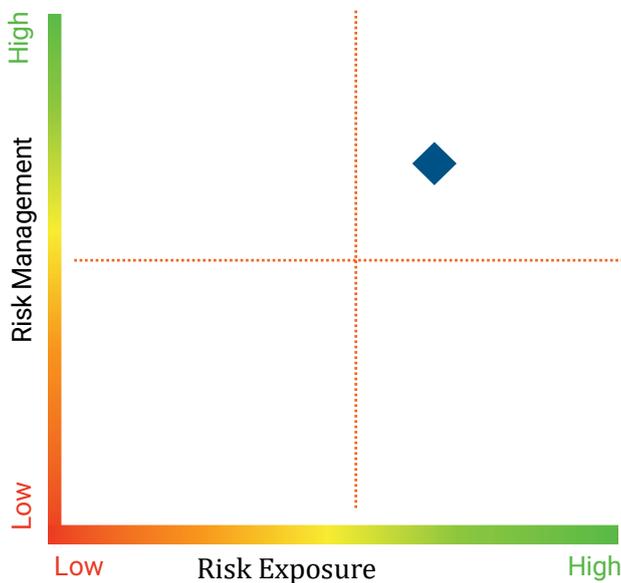
### **Breaches of law (local/ international)**

- Non-compliance with labor laws, safety standards, and environmental regulations results in legal penalties and reputational damage. The automotive sector's global reach heightens exposure to varying legal requirements.
- Intellectual property disputes and anti-competition allegations further complicate legal landscapes. Regulatory breaches can halt production and disrupt supply chains.
- Automotive firms implement robust compliance frameworks, conduct regular audits, and collaborate with legal experts to ensure adherence to evolving standards.

# Risk Dimension Analysis: Crime and Security

**Risk Exposure Score: 59**

**Risk Management Score: 64**



## Cyber-crimes

- Phishing attacks and system breaches disrupt automotive digital operations. Cyber crimes targeting supply chain networks compromise production efficiency.
- Hacking attempts on vehicle software threaten passenger safety and undermine product reliability. Digital transformation efforts heighten cybersecurity challenges.
- Companies adopt multi-layered cybersecurity frameworks and collaborate with cybersecurity experts to fortify digital defenses. Incident response protocols minimize operational impact

## Counterfeiting

- Counterfeit automotive parts compromise vehicle safety and brand reputation. Unauthorized distribution channels exacerbate quality control challenges.
- Identifying counterfeit components in supply chains requires advanced verification processes. Legal actions against counterfeiters drain resources.
- Automotive firms deploy product authentication technologies and educate consumers on genuine parts. Supplier audits reinforce quality assurance. Operational uncertainty during pandemics complicates demand forecasting and inventory management. Remote work adaptations disrupt collaborative workflows.

## Threats to Women Security

- Ensuring workplace safety and gender inclusivity remains a priority. Inadequate safety measures deter female workforce participation.
- Harassment incidents and unequal opportunities damage company culture and attract legal scrutiny. Diversity gaps hinder innovation and productivity.
- Automotive companies implement zero-tolerance harassment policies and provide secure reporting channels. Diversity initiatives promote equitable opportunities. Identifying counterfeit components in supply chains requires advanced verification processes. Legal actions against counterfeiters drain resources.

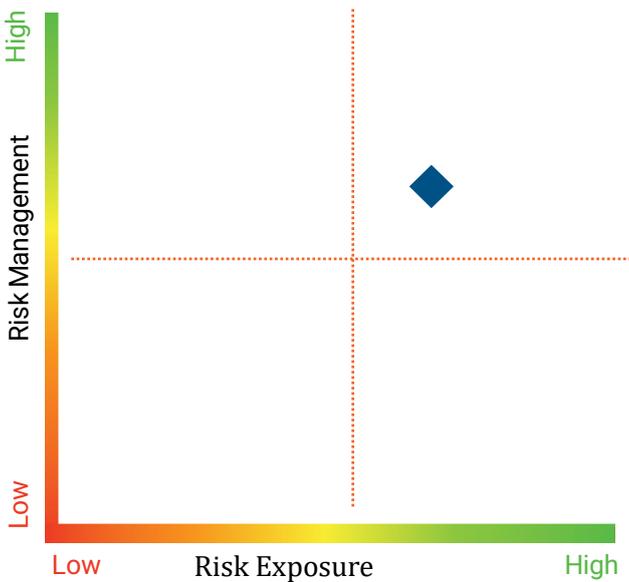
## Corruption

- Unethical practices like bribery and financial misconduct undermine corporate integrity. Corruption allegations tarnish reputations and attract legal penalties.
- Procurement fraud and conflicts of interest inflate operational costs and disrupt supply chains. Transparency gaps fuel governance challenges.
- Companies enforce anti-corruption policies through regular audits and whistleblower protections. Ethical training programs reinforce corporate values. Harassment incidents and unequal opportunities damage company culture and attract legal scrutiny. Diversity gaps hinder innovation and productivity.

# Risk Dimension Analysis: Natural Hazard and Event

**Risk Exposure Score: 59**

**Risk Management Score: 64**



hazardous substances

## Natural Hazards like flood, drought, famine, earthquake, landslide etc

■ Natural disasters like floods, earthquakes, or cyclones can lead to infrastructure damage, potentially causing chemical spills or leaks that contaminate soil, water sources, and air. This contamination can have severe consequences on ecosystems, wildlife, and human health

■ Natural hazards increase safety risks for workers in chemical plants and nearby communities. Industrial accidents triggered by natural disasters can lead to injuries, fatalities, and health hazards for individuals exposed to

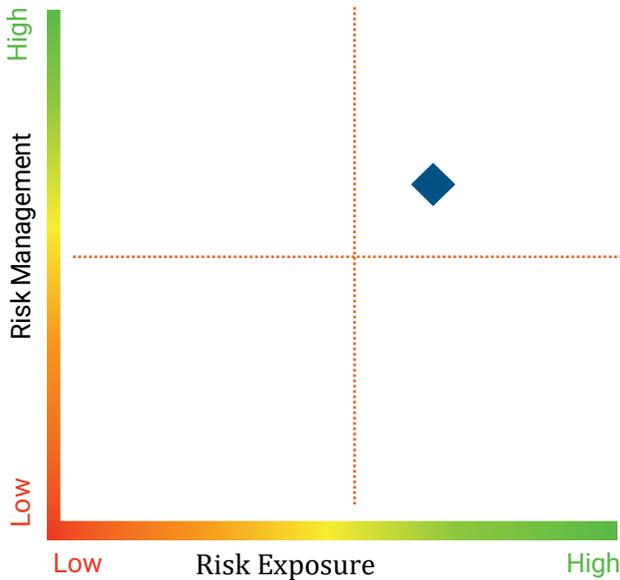
## Pandemic and other Global Epidemic Diseases

- Health crises impact workforce availability and supply chain efficiency. Pandemic-induced lockdowns halt production lines and delay product launches.
- Operational uncertainty during pandemics complicates demand forecasting and inventory management. Remote work adaptations disrupt collaborative workflows.
- Companies enhance health protocols and digital collaboration tools to maintain operations. Employee wellness programs support long-term productivity.

# Risk Dimension Analysis: Strategic Risk

**Risk Exposure Score: 56**

**Risk Management Score: 65**



## Resource scarcity / Misutilisation / Overall Utilisation

- Limited access to critical raw materials like lithium and semiconductor chips constrains production capacities. Global supply chain dependencies heighten scarcity risks.
- Material shortages inflate procurement costs and delay manufacturing timelines. Competition for scarce resources strains supplier relationships.
- Automotive firms diversify sourcing strategies and invest in sustainable alternatives. Long-term supplier contracts stabilize material

availability.

## Public Sentiments

- Consumer perception influences brand loyalty and market performance. Negative publicity around recalls or safety issues damages reputations.
- Environmental and social responsibility expectations shape purchasing decisions. Inadequate transparency erodes public trust.
- Companies engage in proactive public relations campaigns and corporate social responsibility initiatives. Transparent communication fosters positive sentiment.

## Delay in Execution of Projects

- Production facility expansions and technology rollouts face timeline overruns. Regulatory approvals and supply chain disruptions delay project milestones.
- Cost overruns from delayed projects impact profitability and investor confidence. Workforce availability issues exacerbate implementation challenges.
- Companies adopt agile project management methodologies and contingency plans to maintain schedules. Cross-functional teams enhance execution efficiency.

## Increased Number of Recalls and Quality Audits

- Product recalls damage brand reputations and erode customer trust. Quality audit findings

highlight systemic production flaws.

- Frequent recalls increase warranty costs and operational disruptions. Supplier quality issues amplify recall frequencies.
- Automotive firms enforce stringent quality control protocols and supplier evaluations. Real-time monitoring systems ensure product reliability.

### **Failed / Hostile Mergers & Acquisitions**

- Integration challenges from failed acquisitions disrupt corporate alignment. Cultural clashes impair collaborative efficiencies.
- Hostile takeovers create leadership conflicts and operational instability. Misaligned objectives undermine growth potential.
- Companies conduct thorough due diligence and structured integration plans. Open communication fosters smoother transitions and maximized synergies.

# 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 solutions such as Electrical Audit & Thermography, etc.
- **Fire Hydrant IoT:** Fire Hydrant IoT: Fire hydrant IOT (ILGIC Patented Solution) is an automated device for monitoring key parameters such as Hydrant and Sprinkler line pressure, Main and Jockey pump on-off status, Firewater tank level. These can be interpreted to provide intelligence on unauthorized usage of water and leakage, effectively saving water. 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.
- **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 locations.
- **Renewable Solutions:** In line with our philosophy of recommending business solutions, we recommend efficiency measurements for wind and solar power generating assets. Drones are used to provide high accuracy and 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 and in surface transportation / INLAND movement 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, to determine root cause analysis with MIS, claim assessment reports collectively in the form of logistics audit.
- **MWS (Marine warranty surveys):** Our inhouse practices of condition survey prior risk inception & post risk inceptions helps our customers to have an independent risk management of the high value / ODC (over dimensional cargo) movements conducted by the Insured so that reliance over logistics service provider is supervised with Insured's nominated risk assessment team having a worldwide presence with a supervised network. Not only marine cargo, but HULL insurance risk exposures are surveyed for risk assessment and risk management.
- **Technical engagements:** Uncertainty of the risk associated with the transit can be concluded

with marine experts. Assessing vessel's condition for SEA transit as a full chartered load on behalf of the Insured, 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 (software as a service) 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 is recommended to effectively monitor and mitigate theft / pilferage prone dispatches to 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. We have case studies of successful recovery of stolen goods with our telematics services.

## Liability

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

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 prevention with reference to some parameters of distinctive research and industries best practices.
- **Drone Solutions for Linear Projects:** 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.



# Bibliography

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[Thyssenkrupp to Cut 1800 Jobs Due to Automotive Weakness \(Reuters\)](#)

[AP News Article](#)

[Trump's Tariffs Paused: Big Three Automakers May Race to Build Inventories \(MarketWatch\)](#)

[Hostile \\$7 Billion Chip Deal Leans on Electric Faith \(Reuters\)](#)

[2020–2023 Global Chip Shortage \(Wikipedia\)](#)

[Electric Vehicle Supply Chain \(Wikipedia\)](#)

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[Trump's Tariffs Paused: Big Three Automakers May Race to Build Inventories \(MarketWatch\)](#)

[Hostile \\$7 Billion Chip Deal Leans on Electric Faith \(Reuters\)](#)

[Car Prices & Tariffs in Canada and Mexico \(WSJ\)](#)

[Electric Vehicle Supply Chain \(Wikipedia\)](#)

[Automotive Industry in China \(Wikipedia\)](#)

[2008–2010 Automotive Industry Crisis \(Wikipedia\)](#)

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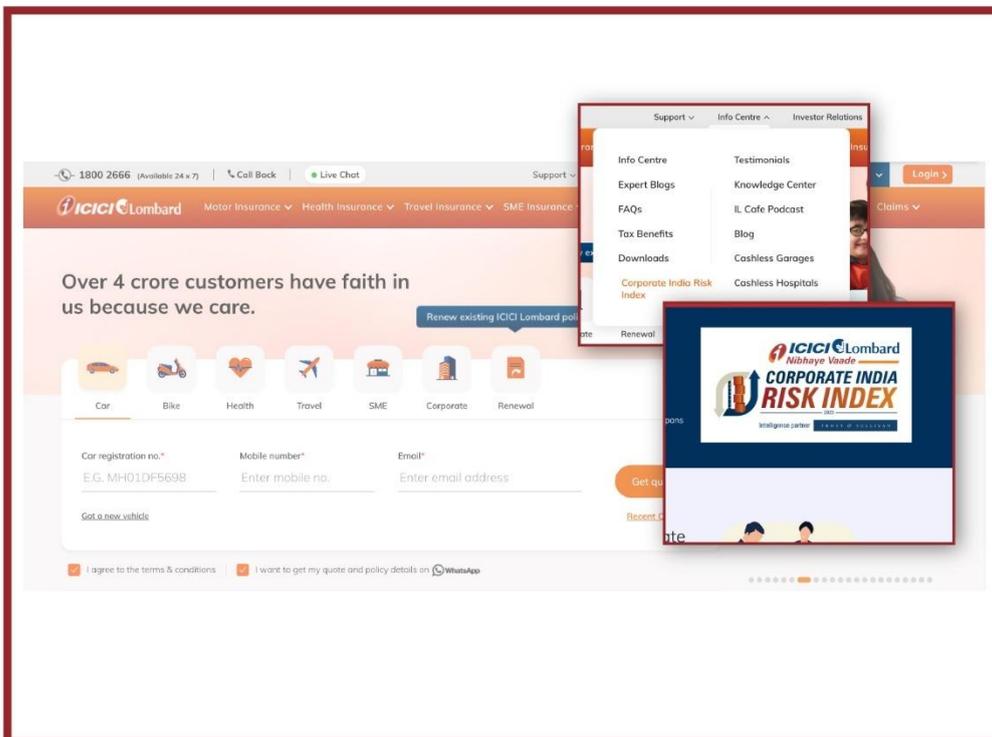
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