ICICI Lombard

CORPORATE INDIA RISK INDEX

2024

Intelligence partner FROST & SULLIVAN

Navigating Risks, Powering India's Growth

SECTOR REPORT 2024

Healthcare Delivery

Table of Contents

Preface

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

India's healthcare delivery sector is undergoing a rapid transformation driven by rising demand, technological advancements, and regulatory changes. The aging population and the rise in non-communicable diseases are prompting hospitals to expand and improve their services. Investments from both public and private sectors are focused on enhancing accessibility and affordability. Innovations such as telemedicine, AI-based diagnostics, robotic-assisted procedures, and the adoption of electronic health records are reshaping patient care, making healthcare more efficient and accessible.

However, challenges persist, particularly medical inflation, which is driving up the cost of medicines, medical devices, and skilled labor, making healthcare less affordable for low-income groups. While government initiatives like Ayushman Bharat aim to address affordability, the sector must balance the increasing costs of healthcare with maintaining quality standards. Medical tourism remains a key growth driver, attracting international patients due to India's high-quality, cost-effective treatments, but issues such as inadequate rural healthcare and regulatory bottlenecks still need to be addressed to ensure long-term growth.

Looking forward, the future of India's healthcare sector hinges on the successful integration of technology, policy reforms, and infrastructure development. Advancements in AI, IoT-based medical devices, and blockchain-driven health records are expected to improve operational efficiency and patient care. Increased government spending on healthcare and expanded health insurance coverage will play a pivotal role in ensuring equitable access. For sustainable growth and to position India as a global leader in healthcare, the sector must continue to balance innovation, affordability, and regulatory oversight.

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

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

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

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

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

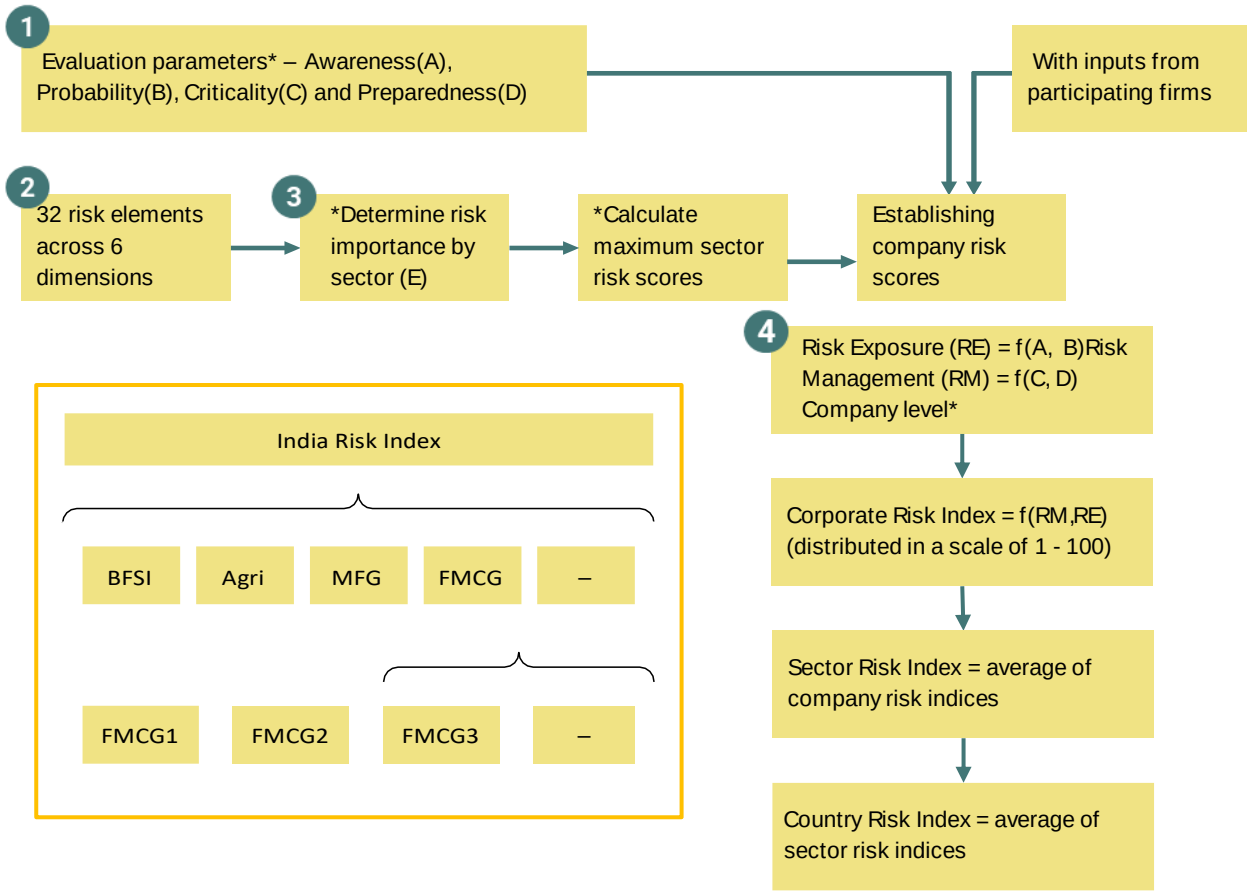


Figure 1: Risk Assessment Approach

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

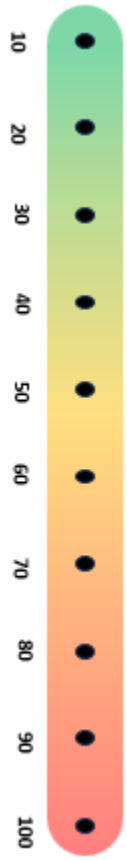
We have selected 20 sectors to understand the current stand of our country today in terms of risk. Risk for various sectors is measured on the risk exposure scale and risk management scale.

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.



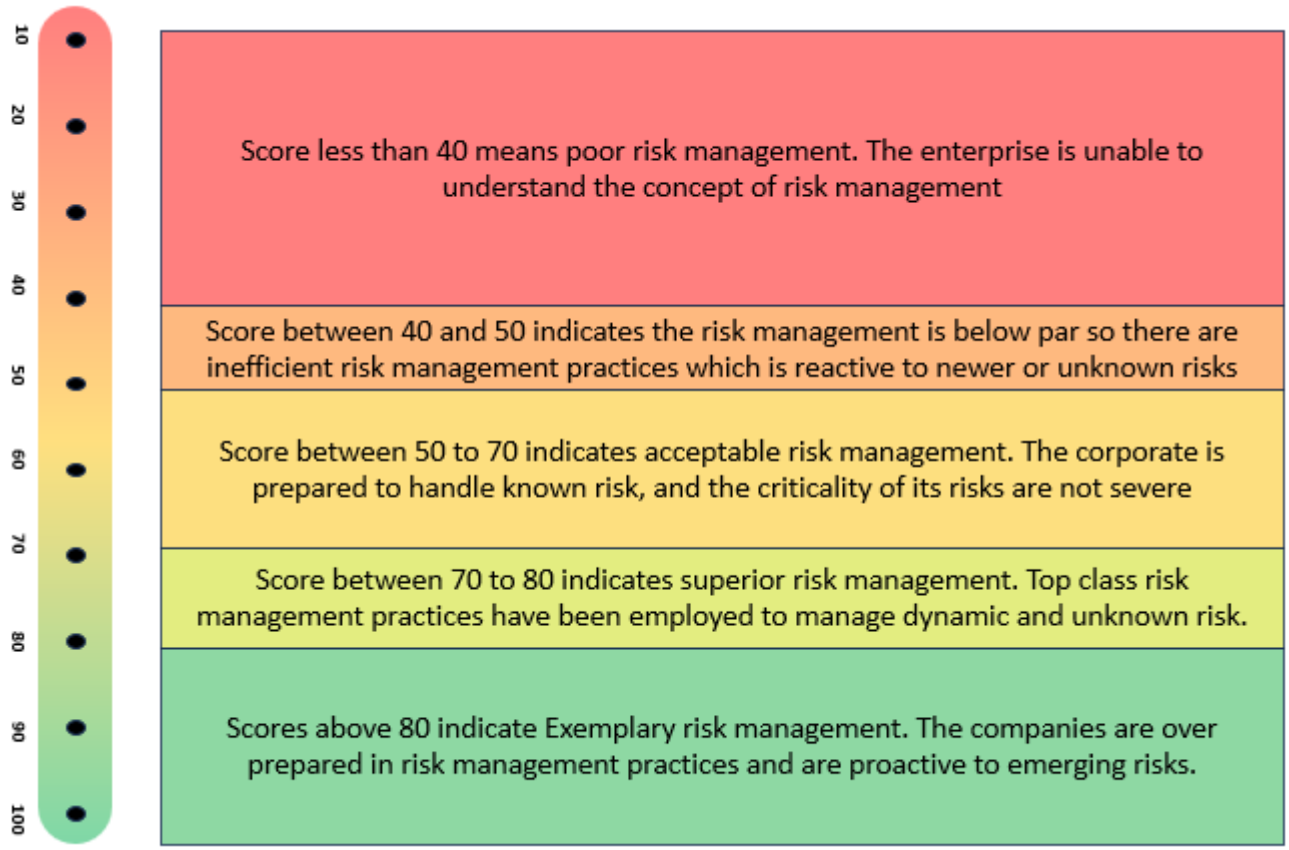
Score: If less than 30 means there is very low risk exposure, and the sector has minimal exposure to overall risk
Score between 30 to 50 indicates low risk exposure and its risk exposure is within acceptable or tolerable limits
Score between 50 to 60 indicates moderate exposure indicating corporate can balance the impact of overall risks up to a certain extent
Score between 60 to 80 indicates high risk exposure and its impact is very high in the industry in which the corporate operates
Score greater than 80 indicates very high-risk exposure. The corporate is unable to foresee risk incidents and probability of occurrence of these incidents may be extremely high

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.

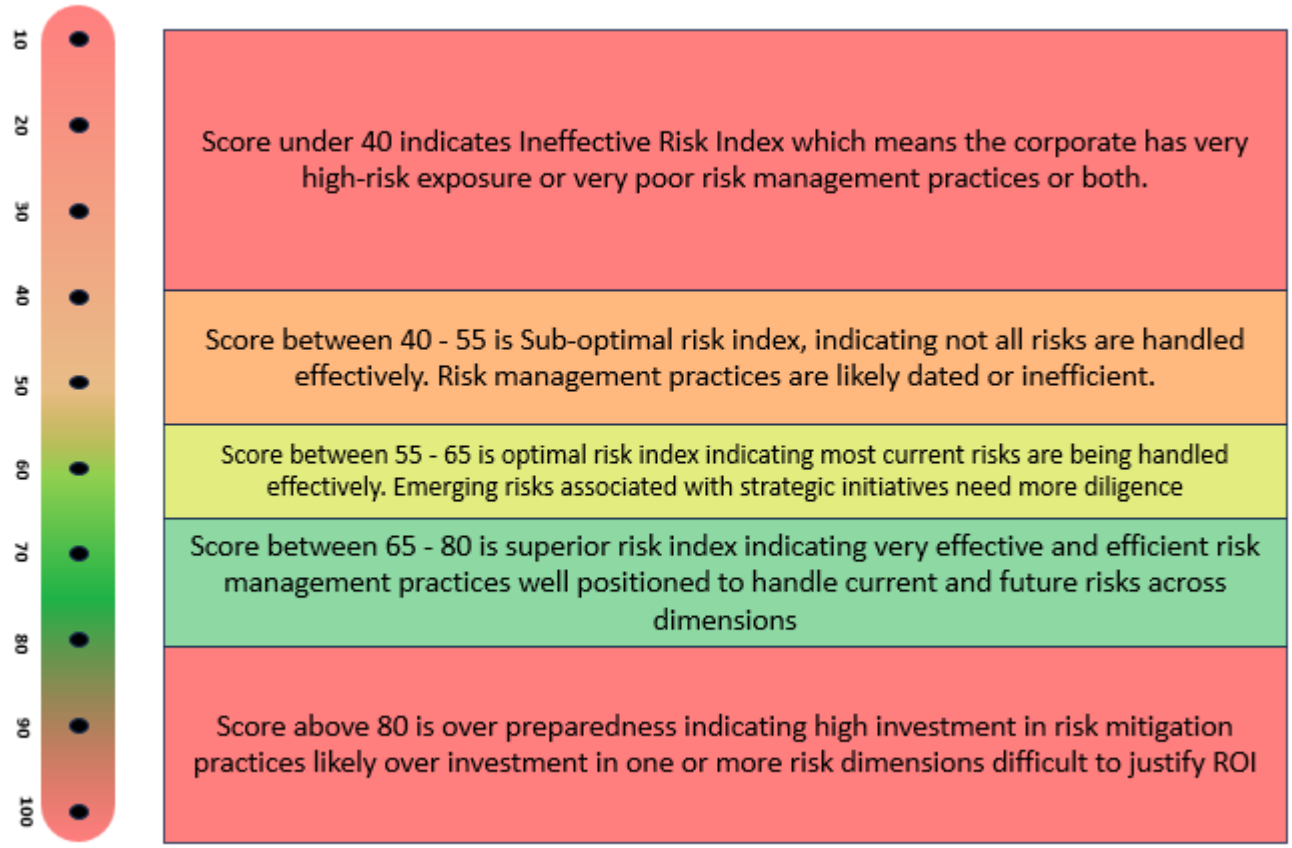
Let's look at the risk management scale.



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.

Healthcare Delivery Sector Insights 2024

The Indian healthcare sector is experiencing sweeping changes, stimulated by rising demand, technological improvements, and regulatory policies. A growing elderly population and an escalation of non-communicable conditions are compelling hospitals and healthcare operators to expand their facilities at breakneck speed. Public and private operators are channeling efforts to enhance accessibility and affordability. The use of telemedicine, AI-based diagnostics, and robotic-assisted procedures is transforming the delivery of healthcare. India's health ecosystem is also changing, as electronic health records and wearable health devices become popular. The sector's growth is also driven by increasing medical tourism, as overseas patients come to India for quality, affordable care.

Medical inflation continues to be a big issue for the healthcare sector as the cost of medicines, medical devices, and qualified staff is increasing, impacting affordability. Increased operational expenses compel hospitals to hike treatment costs, burdening patients' wallets. Health insurance companies are also increasing premiums in order to recover increased claim settlements, making access more difficult for low-income segments. The government is responding to this challenge with programs such as Ayushman Bharat, which seeks to offer financial protection to economically weaker sections. Still, making care affordable without compromising on quality remains a key challenge that policymakers and healthcare providers alike need to resolve.

India's health sector is drawing significant foreign direct investment (FDI), with foreign firms partnering with Indian hospitals to provide specialized care. Sophisticated medical research, pharmaceutical research, and biotechnology advancements are also gaining international recognition. Medical tourism is flourishing, with foreign patients opting for India for complicated procedures like organ transplants, cancer treatments, and orthopedic procedures at a fraction of the price in Western nations. The nation's image for well-trained physicians and top-quality medical centers is also fueling this expansion. Boosting regulatory systems, enhancing infrastructure, and making patient experiences smooth will be the hallmarks of maintaining the pace of medical tourism.

In spite of its advancement, the Indian healthcare industry is beset with crucial issues such as insufficient rural health facilities,regulatory impediments,and supply chain inefficiencies. Proper medical infrastructure, trained staff, and drugs remain absent in most remote regions. Collaboration between the government and private sector is imperative to filling these gaps and enhancing healthcare access. Improving the supply chain for medical equipment and drugs will minimize disruptions and guarantee timely delivery. Moreover, regulatory compliance and quality control processes need to be optimized to promote innovation while ensuring safety standards.

Investments in digital health solutions, AI-based diagnostics, and public-private partnerships will be critical for future growth.

The destiny of India's healthcare industry rests in the alignment of technology, policy changes, and infrastructure upgrade. The deployment of AI, IoT-based medical equipment, and blockchain-based healthcare records will promote efficiency and improved patient outcomes. Increased health insurance coverage and growth in government spending on healthcare will be key in ensuring quality care for everyone. Improved medical training and education programs will mitigate the lack of professional skills. As the sector develops, a harmonious balance between innovation, affordability, and regulation will be required to provide sustainable growth, making India a world leader in healthcare excellence and medical innovation.

Healthcare Delivery Sector Risk Index 2024 Vs 2023

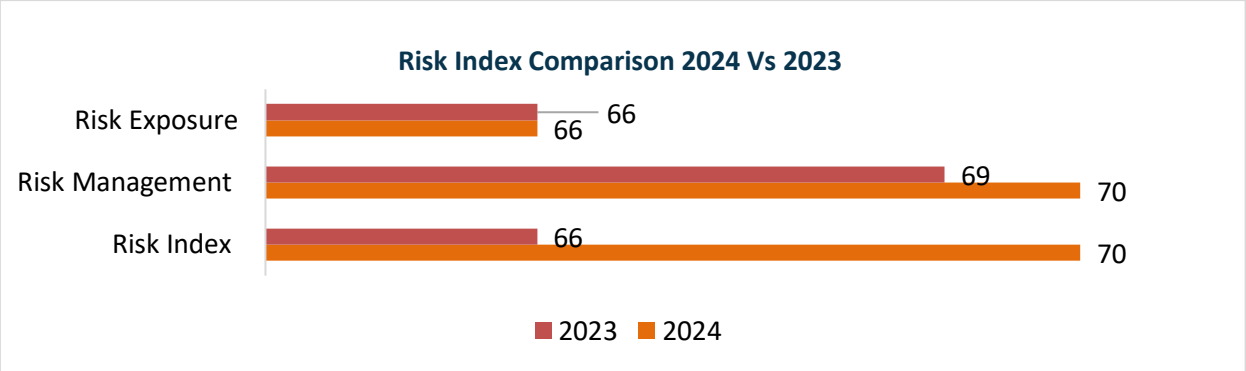


Figure 4: Detailed Comparative Analysis 2024 Vs. 2023

Healthcare Delivery Sector Risk Index 2024 Vs 2023

The overall Risk Index for the sector increased from 66 to 70 in 2024, owing to an increase in the risk management in the sector.

Healthcare Delivery Sector Risk Exposure 2024 Vs 2023

Risk exposure stayed the same due to the persistent and relatively stable challenges that the sector has been grappling with, such as regulatory scrutiny, rising healthcare costs, staffing shortages, and the ongoing pressure to deliver quality care amidst increasing demand. External risks like economic fluctuations, healthcare funding constraints, and infrastructure gaps, especially in rural areas, continued to be present. However, these risks did not significantly intensify compared to the previous year.

Healthcare Delivery Sector Risk Management 2024 Vs 2023

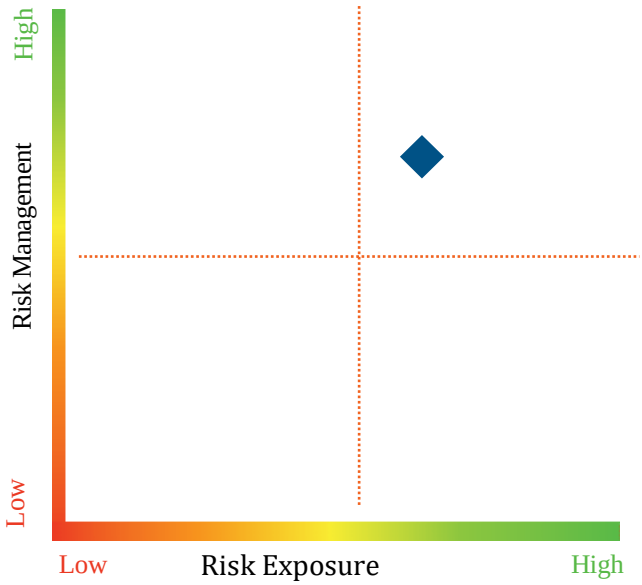
Risk management increased as healthcare organizations and the government adapted to a rapidly evolving landscape. With the continuing digitalization of healthcare services, there was a heightened focus on improving cybersecurity measures to protect sensitive patient data, given the growing use of electronic health records and telemedicine platforms. The sector also invested more in operational efficiency through automation, AI-based diagnostic tools, and better supply chain management to mitigate disruptions caused by global shortages and logistical challenges. Furthermore, healthcare providers placed greater emphasis on compliance with new regulations and sustainability initiatives to reduce environmental impact and ensure quality standards.

Key Highlights

Risk Dimension Analysis: Market and Economy

Risk Exposure Score: 73

Risk Management Score: 74



Inflation

- Rising costs of medical equipment, pharmaceuticals, and technology due to inflation increase operational expenses. Supply chain disruptions further escalate prices, making essential healthcare services and advanced treatments less affordable for patients and providers.
- Higher treatment costs lead to increased insurance claims, forcing insurers to raise premiums. This makes health coverage expensive, reducing accessibility and financial protection for patients, particularly in critical care and specialized treatments.
- The rising cost of skilled medical professionals strains hospital budgets. Inflation-driven salary hikes limit hiring and retention, causing workforce shortages. This impacts patient care quality and operational efficiency, affecting long-term healthcare sustainability.
- Eroding purchasing power makes quality healthcare unaffordable for many patients. Government schemes offer relief, but rising operational costs challenge the sustainability of subsidized healthcare, putting pressure on public and private healthcare providers alike.

Taxation Risk

- Rising taxation on medical equipment, pharmaceuticals, and healthcare services increases operational costs for providers. Higher GST rates and import duties make essential treatments more expensive, impacting affordability for both hospitals and patients, leading to financial strain across the sector.
- Higher taxation on health insurance policies raises premium costs, reducing coverage affordability for individuals and employers. This limits insurance penetration, increasing out-

of-pocket expenses for patients and restricting access to quality healthcare services.

- Frequent tax policy changes create compliance challenges for healthcare providers. Uncertainty in taxation frameworks affects long-term planning, discourages foreign investments, and disrupts financial sustainability. This impacts research, innovation, and the overall growth of the healthcare sector.

Geopolitical Risks

- Global geopolitical tensions disrupt healthcare supply chains, increasing the cost of importing medical equipment, pharmaceuticals, and raw materials. Trade restrictions, sanctions, and conflicts lead to delays and shortages, impacting hospital operations and the availability of critical healthcare resources.
- Unstable geopolitical conditions affect foreign direct investment (FDI) in the healthcare sector. Investors become cautious, slowing funding for infrastructure expansion, research, and advanced medical technologies. This limits healthcare I nnovation and the sector's ability to meet growing patient demands.
- Medical tourism is highly vulnerable to geopolitical risks. Political instability, visa restrictions, and international conflicts discourage foreign patients from seeking treatment, reducing revenue streams for hospitals and healthcare providers dependent on international clients.
- Geopolitical tensions influence currency exchange rates and economic stability, indirectly affecting healthcare affordability. Inflationary pressures from global conflicts raise operational costs, forcing hospitals to increase treatment prices, making healthcare less accessible for lower-income populations and financially straining the entire sector.

Foreign Exchange Risk

- Fluctuations in foreign exchange rates increase the cost of importing medical equipment, pharmaceuticals, and advanced technology. A weaker domestic currency makes essential healthcare infrastructure more expensive, raising treatment costs and impacting the affordability of specialized medical procedures.
- Hospitals and healthcare providers with foreign loans or international partnerships face higher repayment costs due to currency depreciation. This strains financial stability, reducing investment in expansion, research, and technological advancements, ultimately affecting service quality and patient care.
- Medical tourism, a key revenue stream for many healthcare providers, is highly sensitive to currency fluctuations. A strong domestic currency makes treatments costlier for foreign patients, potentially reducing international patient inflow and impacting hospital revenues.
- Foreign exchange volatility affects multinational healthcare companies operating in India, influencing pricing strategies and investment decisions. Regulatory challenges related to currency exchange further complicate financial planning, limiting collaborations, foreign direct investment (FDI), and long-term sustainability in the healthcare sector.

Regulatory Risk

- Frequent changes in healthcare regulations create compliance challenges for hospitals, pharmaceutical companies, and medical device manufacturers. Adapting to new laws increases administrative costs, operational complexity, and delays in approvals for new treatments and technologies.
- Strict regulatory requirements on pricing, drug approvals, and medical equipment standards impact profitability. Price controls on essential medicines and procedures, while beneficial for patients, can reduce revenue margins for healthcare providers and pharmaceutical firms, limiting innovation and investment.
- Licensing and accreditation rules vary across regions, creating operational hurdles for healthcare institutions. Complex approval processes for hospitals, diagnostics, and telemedicine services slow expansion and increase compliance costs, affecting overall efficiency.
- Regulatory uncertainty discourages foreign investment in the healthcare sector. Sudden policy shifts on FDI limits, clinical trials, or insurance regulations create instability, making long-term planning difficult for international healthcare firms and limiting sectoral growth potential.

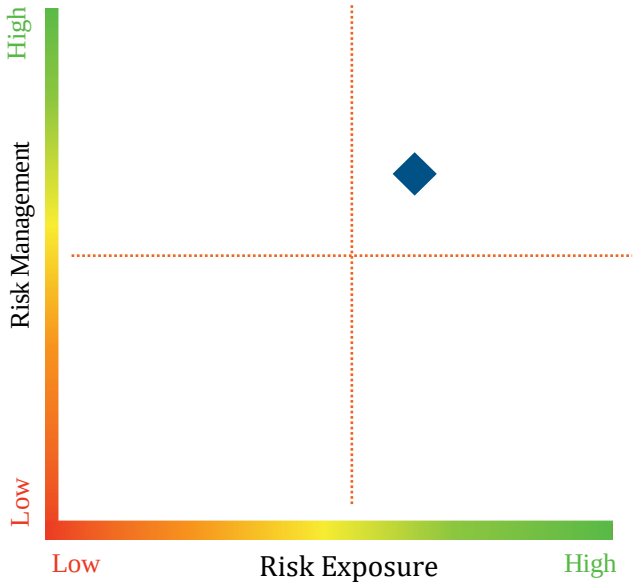
Competitive Risk

- The healthcare sector faces intense competition among hospitals, pharmaceutical companies, and healthcare service providers. Price wars and aggressive expansion strategies pressure profit margins, making it challenging for smaller players to sustain operations and maintain service quality.
- Rapid advancements in medical technology and digital healthcare solutions create competition between traditional hospitals and emerging health-tech startups. Telemedicine, AI-driven diagnostics, and online pharmacies disrupt conventional healthcare models, forcing established providers to innovate or risk losing market share.
- Medical tourism intensifies competitive pressures, with hospitals competing for international patients based on pricing, quality, and specialized treatments. Currency fluctuations, geopolitical factors, and global healthcare advancements further influence patient preferences and hospital revenues.
- Talent acquisition and retention present a competitive challenge, as top medical professionals prefer institutions offering better salaries and advanced research opportunities. Hospitals must invest in workforce development while balancing financial constraints, impacting their ability to deliver high-quality care consistently.

Risk Dimension Analysis: Technology

Risk Exposure Score: 63

Risk Management Score: 67



Innovation Risk / Obsolete Technology

- Rapid advancements in medical technology create the risk of outdated infrastructure and equipment. Hospitals investing heavily in new technologies may face obsolescence if innovations evolve too quickly, leading to financial losses and inefficiencies in healthcare delivery.
- Integration of AI, telemedicine, and robotic surgeries requires significant investment, but adoption challenges persist. A 2023 EY report found that only 30% of Indian hospitals effectively use AI-driven diagnostics, highlighting risks of underutilization and delayed return on investment.

Intellectual Property Risk

- Patent expirations in the healthcare sector increase competition from generic manufacturers, reducing profitability for pharmaceutical companies. This limits incentives for research and development, affecting the introduction of new and advanced treatments in the market.
- Medical device and drug innovations are vulnerable to counterfeiting and patent infringement. Weak enforcement of intellectual property rights allows unauthorized replication, impacting brand reputation, patient safety, and financial returns for original manufacturers.
- Regulatory complexities in patent approvals create delays in bringing new drugs and medical technologies to market. Lengthy approval processes discourage investment in innovation, slowing advancements in critical healthcare solutions.
- Intellectual property theft and inadequate legal protections affect research and development efforts. Healthcare firms face challenges in safeguarding proprietary technologies, leading to potential financial losses and reduced global competitiveness in medical innovation.

Disruptive Technology

- Disruptive technologies like AI, telemedicine, and blockchain are transforming healthcare but pose risks related to adoption and integration. Traditional hospitals and clinics may struggle with digital transformation, leading to inefficiencies and resistance from both medical professionals and patients.

- High implementation costs and uncertain return on investment make disruptive technologies financially risky. Healthcare providers must invest in infrastructure, training, and cybersecurity, but slow adoption rates and regulatory hurdles can delay profitability and impact financial planning.
- Regulatory and ethical concerns around AI-driven diagnostics, robotic surgeries, and digital health records create uncertainties. Inconsistent policies and data privacy issues limit widespread adoption, increasing compliance risks for healthcare organizations.
- Job displacement and skill gaps emerge as automation and AI take over routine medical tasks. Healthcare workers need continuous upskilling, but resistance to change and lack of adequate training programs slow down workforce adaptation, impacting service efficiency.

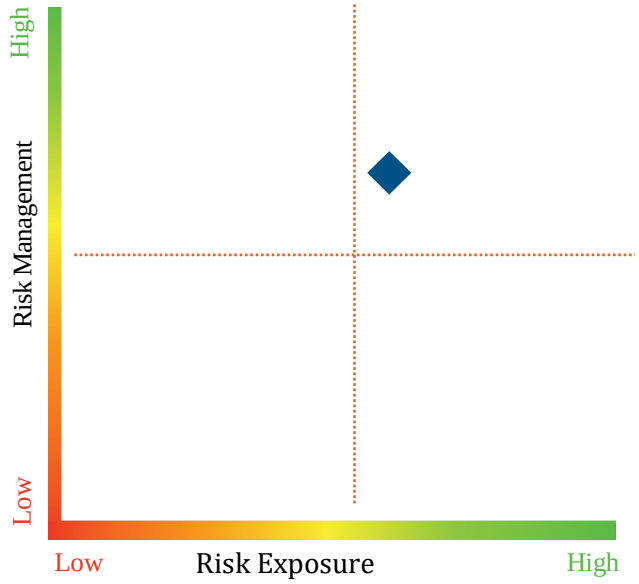
Data Compromises

- Healthcare organizations face significant risks from data breaches, as patient records contain sensitive personal and medical information. Cyberattacks on hospitals and clinics can lead to unauthorized access, identity theft, and financial fraud, compromising patient trust and legal compliance.
- Weak cybersecurity measures in healthcare systems make them vulnerable to hacking, ransomware, and phishing attacks. Insufficient encryption and outdated software increase the risk of data leaks, disrupting hospital operations and leading to potential regulatory penalties.
- Improper handling of patient data by third-party vendors, insurers, and cloud storage providers raises privacy concerns. Unauthorized sharing or data misuse can violate regulations, leading to legal liabilities and reputational damage for healthcare institutions.
- Data loss due to system failures, power outages, or inadequate backup solutions can impact continuity of care. If electronic health records become inaccessible, critical patient history and treatment plans may be lost, endangering patient safety and operational efficiency.

Risk Dimension Analysis: Operational and Physical

Risk Exposure Score: 66

Risk Management Score: 70



Critical Infrastructure Failure / Machine Breakdown

- Aging hospital infrastructure, inadequate medical facilities, and outdated equipment pose significant risks to healthcare service delivery. Insufficient investment in modernizing critical infrastructure can lead to inefficiencies, reduced patient capacity, and compromised treatment quality during emergencies.
- Natural disasters, cyberattacks, and power failures threaten the operational continuity of healthcare institutions. A lack of robust disaster recovery plans and cybersecurity measures can disrupt patient care, delay treatments, and compromise sensitive medical data, leading to financial and reputational damage.
- Dependence on centralized supply chains for pharmaceuticals and medical equipment makes healthcare providers vulnerable to disruptions. Infrastructure failures in transportation, logistics, or manufacturing can result in shortages, delaying life-saving treatments and escalating costs.

Business Continuity / Sustainability

- Healthcare institutions must ensure operational resilience against disruptions such as pandemics, cyberattacks, and supply chain failures. A lack of robust contingency plans can lead to service interruptions, impacting patient care, financial stability, and overall sector efficiency.
- Workforce shortages due to crises like health emergencies or labor strikes can severely disrupt hospital operations. Ensuring staff availability through flexible workforce management, telemedicine integration, and remote healthcare solutions is crucial for business continuity and uninterrupted patient care.
- Reliance on single-source suppliers for medical equipment and pharmaceuticals creates vulnerabilities. Diversifying procurement channels and maintaining strategic stockpiles can help mitigate risks from geopolitical conflicts, trade restrictions, or logistical disruptions.
- Digital transformation in healthcare introduces risks of cyber threats and system failures.

Implementing strong cybersecurity protocols, data backup systems, and disaster recovery strategies is essential to protect patient records, ensure regulatory compliance, and maintain trust in healthcare services.

Supply Chain Risk

- Disruptions in the global supply chain for medical equipment, pharmaceuticals, and essential raw materials increase costs and delay treatments. Dependence on specific countries for critical supplies makes healthcare providers vulnerable to trade restrictions and geopolitical conflicts.
- Shortages of essential drugs, medical devices, and protective equipment impact patient care and hospital efficiency. Unexpected crises, such as pandemics or natural disasters, strain supply chains, leading to inflated costs and limited availability of life-saving resources.
- Logistical challenges, including transportation delays and storage limitations, affect the timely delivery of medical products. Poor cold-chain infrastructure can compromise vaccine efficacy and the quality of temperature-sensitive medications, increasing risks for patients.
- Regulatory barriers and trade policies affect the seamless movement of medical goods across borders. Sudden changes in import/export restrictions, taxation policies, and compliance requirements create uncertainty, raising operational costs and limiting healthcare accessibility.

Commodity Price Risk - Volatility in prices of raw materials

- Fluctuations in the prices of essential medical commodities, such as pharmaceuticals, surgical equipment, and diagnostic materials, directly impact healthcare costs. Rising raw material expenses force hospitals and manufacturers to increase prices, affecting affordability for patients.
- Global supply chain disruptions, geopolitical tensions, and inflation contribute to volatility in commodity prices. Higher costs for metals used in medical devices, chemicals for drug manufacturing, and protective equipment strain hospital budgets and reduce profitability.
- Dependence on imported raw materials exposes the healthcare sector to currency fluctuations and trade restrictions. A weaker domestic currency increases procurement costs, making essential medicines and medical equipment more expensive.
- Unstable commodity prices create financial planning challenges for healthcare institutions. Budget constraints limit investment in infrastructure, advanced treatments, and research, ultimately affecting service quality and innovation in the industry.

Portfolio Risk

- Diversified healthcare businesses, including hospitals, pharmaceuticals, and diagnostics, face portfolio risk due to varying demand and profitability across segments. Economic downturns or regulatory changes can disproportionately impact specific areas, affecting overall financial stability.

- Dependence on a particular revenue stream, such as elective procedures or medical tourism, increases risk exposure. Fluctuations in patient demand, policy shifts, or travel restrictions can disrupt cash flow, requiring strategic diversification to mitigate financial volatility.
- Investments in advanced medical technology and infrastructure carry long-term risks. High capital expenditures may not yield immediate returns, and rapid technological advancements can render older investments obsolete, impacting competitiveness and financial sustainability.
- Market competition and innovation pressures affect portfolio performance. Health-tech startups and telemedicine services challenge traditional business models, forcing established healthcare providers to continuously evolve their service offerings or risk declining market relevance.

Environmental Hazard Risk

- Healthcare facilities generate significant biomedical waste, including infectious materials, chemicals, and radioactive substances. Improper disposal poses environmental and public health risks, leading to regulatory penalties, reputational damage, and increased waste management costs for hospitals and pharmaceutical companies.
- Climate change and extreme weather events, such as heatwaves, floods, and hurricanes, disrupt healthcare infrastructure and supply chains. Hospitals may face power outages, water shortages, and structural damage, affecting patient care and increasing operational costs.
- Air and water pollution from pharmaceutical manufacturing and hospital operations contribute to environmental hazards. Contaminants in wastewater and emissions can harm ecosystems and communities, leading to stricter environmental regulations and higher compliance costs.

Workplace Accident

- Healthcare workers face high risks of workplace accidents, including needlestick injuries, exposure to infectious diseases, and chemical hazards. Poor safety protocols can lead to infections, long-term health issues, and increased compensation claims, affecting hospital operations and staff morale.
- Slips, trips, and falls in hospitals due to wet floors, cluttered hallways, or poor lighting pose significant risks to both staff and patients. Injuries from such accidents lead to lost workdays, higher insurance costs, and potential legal liabilities for healthcare institutions.
- Heavy lifting and repetitive tasks put healthcare workers at risk of musculoskeletal disorders. Improper patient handling, lack of ergonomic equipment, and long working hours contribute to chronic injuries, reducing workforce productivity and increasing medical leave.
- Violence and aggression from patients or visitors create safety concerns for healthcare staff. Inadequate security measures and mental health challenges in high-stress environments increase the risk of physical or verbal assaults, impacting employee well-being and retention rates.

Human Resource

- Healthcare institutions face workforce shortages due to high demand, burnout, and limited availability of skilled professionals. The increasing need for specialized doctors, nurses, and technicians strains existing staff, affecting service quality and patient care efficiency.
- Employee retention is a challenge due to competitive salaries in the private sector and opportunities abroad. High attrition rates force hospitals to invest heavily in recruitment, training, and retention programs, increasing overall operational costs.
- Workforce well-being is critical as long working hours, emotional stress, and exposure to infections lead to burnout and mental health issues. Inadequate support systems impact productivity, job satisfaction, and the overall efficiency of healthcare delivery.
- Advancements in technology and digital healthcare require continuous workforce upskilling. The integration of AI, telemedicine, and robotic surgeries demands training programs to keep healthcare professionals updated, adding financial and logistical challenges for institutions.

Financial Risk

- Rising operational costs, including salaries, medical equipment, and infrastructure maintenance, have strained financial stability in the healthcare sector. According to ICRA, private hospitals in India saw a 15-18% increase in operating expenses in FY23, impacting profitability despite revenue growth.
- Debt burdens are increasing, with many healthcare providers relying on loans for expansion. CRISIL reported that the debt-to-equity ratio for major hospital chains increased to 1.2x in 2023, raising financial risk. High interest rates further impact repayment ability, affecting long-term sustainability.
- Insurance claim delays and policy changes affect cash flow. The Indian health insurance market grew by 20% in FY23, but delayed reimbursements from insurers and government schemes like Ayushman Bharat create liquidity challenges for hospitals, especially smaller ones.
- Revenue dependency on elective procedures and medical tourism makes financial performance volatile. In 2023, India's medical tourism industry saw a 12% decline due to geopolitical tensions and currency fluctuations, impacting hospitals that rely on international patients for high-margin treatments.

Breaches of law (local/ international)

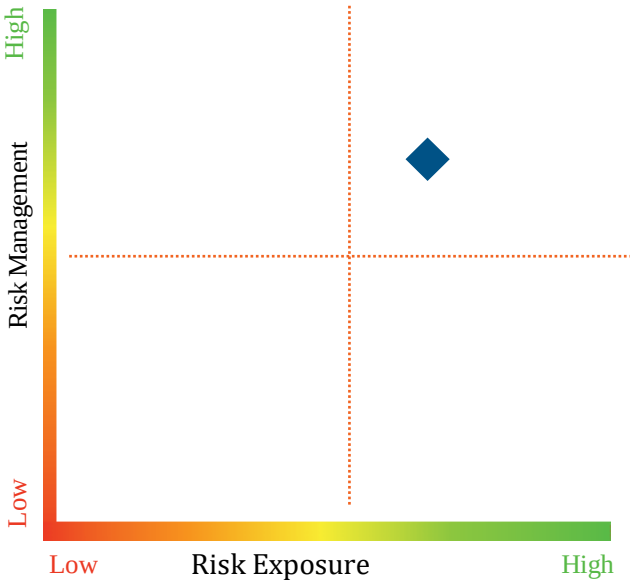
- Non-compliance with regulatory frameworks leads to legal risks for healthcare providers. In 2023, the National Pharmaceutical Pricing Authority (NPPA) fined multiple hospitals for overcharging on essential drugs, highlighting the financial and reputational risks of violating price control regulations.
- Data privacy breaches in healthcare are increasing. A 2023 CERT-In report found that over 1.9 million patient records were exposed in India due to cyberattacks on hospitals, leading to legal actions under the Digital Personal Data Protection Act and potential lawsuits.

- Medical negligence cases are rising. The National Consumer Disputes Redressal Commission (NCDRC) reported a 34% increase in healthcare-related complaints in 2023, with hospitals facing penalties and damage to their credibility due to malpractice claims.
- Violations of environmental laws, such as improper biomedical waste disposal, result in fines and operational restrictions. In 2023, the Central Pollution Control Board (CPCB) issued 200+ notices to hospitals for non-compliance with hazardous waste management guidelines, leading to legal consequences and financial liabilities.

Risk Dimension Analysis: Crime and Security

Risk Exposure Score: 58

Risk Management Score: 67



Cyber-crimes

- Healthcare institutions are prime targets for cybercrime due to the vast amount of sensitive patient data they store. Hackers exploit weak security systems to steal medical records, financial details, and personal information, leading to identity theft and fraudulent activities.

- Ransomware attacks on hospitals and healthcare providers disrupt critical operations. Cybercriminals encrypt patient data and demand ransom for its release, delaying treatments, affecting emergency care, and causing financial losses while forcing institutions to pay hefty recovery costs.

Counterfeiting

- Counterfeiting in the healthcare sector poses severe risks to patient safety, as fake medicines and medical devices often contain incorrect or harmful ingredients. These substandard products lead to ineffective treatments, adverse reactions, and, in some cases, life-threatening consequences.
- The distribution of counterfeit drugs undermines trust in pharmaceutical brands and healthcare providers. When patients receive ineffective or harmful medications, the reputation of legitimate manufacturers and hospitals suffers, leading to financial losses and legal challenges.
- Weak supply chain controls and inadequate regulatory enforcement enable counterfeit products to enter the market. Gaps in tracking systems, lack of authentication measures, and corruption in distribution networks make it difficult to prevent fake drugs from reaching consumers.
- Advanced counterfeiting techniques, such as replicated packaging and fake barcodes, make it increasingly challenging to distinguish genuine products from fraudulent ones. Without robust verification mechanisms, counterfeiters continue to exploit vulnerabilities, endangering public health and damaging the credibility of the healthcare industry.

Threat to Women Security

- Healthcare facilities pose security risks to women, including female patients, nurses, and staff, due to inadequate safety measures. Insufficient surveillance, poorly lit areas, and a lack of security personnel increase vulnerability to harassment, assault, and misconduct in hospitals

and clinics.

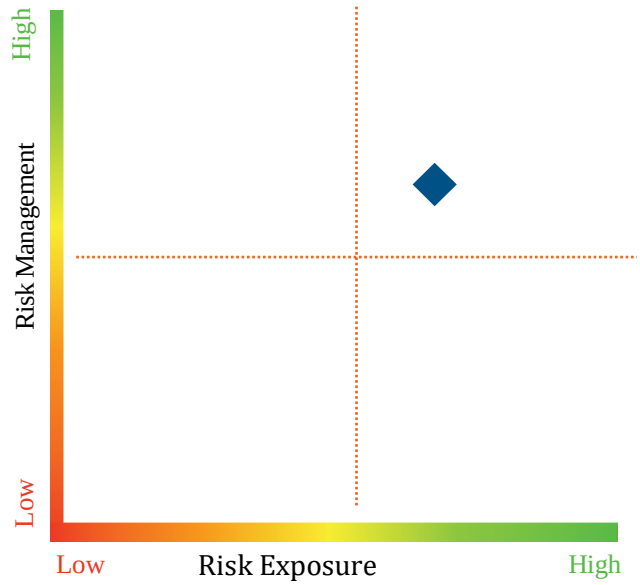
- Workplace harassment remains a significant concern for female healthcare professionals. Power imbalances, long working hours, and male-dominated leadership structures create environments where women may face discrimination, verbal abuse, or exploitation, impacting their mental well-being and career growth.
- Security risks in emergency and night shifts expose female healthcare workers to potential threats. Lack of safe transport, isolated duty stations, and minimal protective policies increase the likelihood of workplace-related crimes, making healthcare jobs less appealing to women.
- Cyber threats, including online harassment and data breaches, compromise the safety of female patients and professionals. Unauthorized access to medical records, doxxing, and targeted digital harassment can lead to privacy violations, emotional distress, and reputational harm.

Terrorism

- Healthcare facilities are vulnerable targets for terrorism due to their critical role in public safety. Attacks on hospitals, clinics, and pharmaceutical supply chains can disrupt medical services, endanger lives, and create widespread panic, particularly in conflict zones or politically unstable regions.
- Bioterrorism poses a significant threat to healthcare systems, with the deliberate release of viruses, bacteria, or toxins causing mass infections. Hospitals may struggle to manage sudden outbreaks, overwhelming medical infrastructure and leading to severe public health crises.
- Cyberterrorism targeting healthcare institutions can cripple emergency response systems, disrupt patient care, and compromise sensitive medical data. Ransomware or hacking attacks can disable life-saving equipment, leading to fatalities and loss of trust in healthcare security measures.
- Terrorist groups may exploit healthcare networks to gain access to medical supplies, drugs, and chemicals for illicit use. Weak supply chain monitoring and insufficient regulations make it easier for harmful substances to be diverted for attacks, increasing national security concerns.

Risk Dimension Analysis: Natural Hazard and Event

Risk Exposure Score: 64
Risk Management Score: 70



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

- Natural hazards like earthquakes, floods, and hurricanes pose serious threats to healthcare infrastructure. Hospitals and clinics may suffer structural damage, power outages, and equipment failures, disrupting emergency medical services and endangering patient lives during critical situations.
- Flooding and water contamination can compromise medical supplies, leading to shortages of essential drugs, vaccines, and sterilised equipment. Poor disaster preparedness can delay response efforts, worsening healthcare crises and increasing mortality rates in affected regions.

Pandemic and other Global Epidemic Diseases

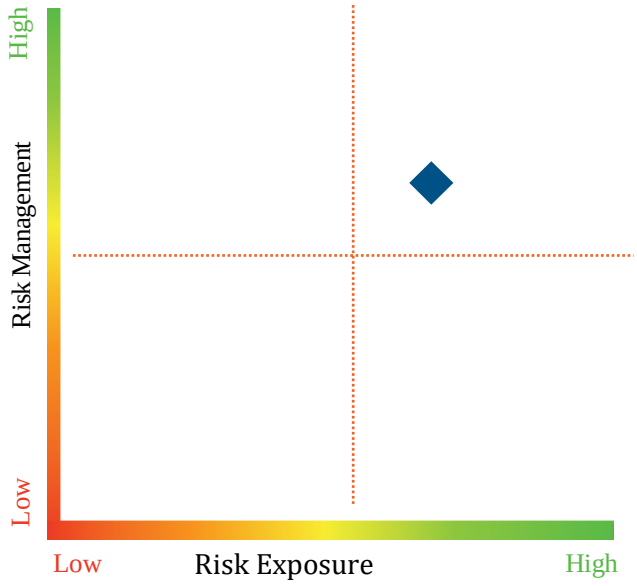
- Pandemics put immense pressure on healthcare systems, leading to hospital overcrowding, medical supply shortages, and workforce burnout. The rapid surge in patients strains infrastructure, reducing the quality of care and increasing mortality rates, especially in underprepared regions.
- Economic disruptions caused by pandemics impact healthcare funding and sustainability. Increased spending on emergency response, vaccine development, and public health measures can divert resources from routine medical services, affecting long-term healthcare investments and operational stability.
- Supply chain disruptions during pandemics lead to shortages of essential medicines, protective equipment, and ventilators. Dependence on global suppliers exacerbates delays, making it difficult for healthcare providers to maintain adequate stock for patient care.
- The rise of telemedicine and digital healthcare during pandemics transforms medical service delivery but creates accessibility challenges. While virtual consultations improve remote care, unequal access to technology and internet services limits their effectiveness for

underprivileged populations.

Risk Dimension Analysis: Strategic Risk

Risk Exposure Score: 63

Risk Management Score: 68



Resource scarcity / Misutilization / Overall Utilization

- Resource scarcity in healthcare leads to shortages of essential medical supplies, including medicines, oxygen, and life-saving equipment. Limited availability forces hospitals to ration resources, impacting patient care and increasing mortality risks, especially during crises like pandemics or disasters.
- Infrastructure constraints, such as inadequate hospital beds, ICU facilities, and diagnostic equipment, hinder the ability to manage large patient volumes. Rural and underdeveloped areas suffer the most, with limited access to specialized treatments and emergency care.

Public Sentiments

- Public sentiment toward the healthcare sector significantly influences trust and engagement with medical services. Negative experiences, high treatment costs, and service inefficiencies can lead to dissatisfaction, reducing patient confidence in hospitals, doctors, and healthcare policies.
- Misinformation and distrust in medical advancements, such as vaccines and new treatments, create resistance to healthcare initiatives. Public skepticism, fueled by social media and unreliable sources, can slow disease control efforts and impact public health outcomes.
- Affordability concerns and perceived commercialization of healthcare impact public perception. When medical services are viewed as profit-driven rather than patient-centric, trust declines, leading to hesitancy in seeking professional medical care and increased reliance on alternative treatments.
- Positive healthcare experiences and transparent communication improve public sentiment. Hospitals that prioritize patient-centric care, ethical practices, and community engagement foster long-term trust, encouraging proactive health management and better relationships

between healthcare providers and society.

Delay in Execution of projects

- Project delays in the healthcare sector disrupt infrastructure development, medical research, and technology upgrades. Construction delays for hospitals and clinics result in prolonged gaps in healthcare access, especially in underserved areas, impacting patient care and service delivery.
- Regulatory approvals and bureaucratic hurdles slow down medical research, drug development, and the launch of new treatments. Prolonged approval timelines delay innovation, affecting the availability of advanced medical solutions and reducing investment incentives for healthcare companies.
- Supply chain disruptions, labor shortages, and financial constraints contribute to delays in procuring medical equipment and setting up healthcare facilities. These setbacks hinder operational efficiency and limit the expansion of critical healthcare services.
- Inefficient project management and coordination failures in healthcare IT systems, such as electronic health records or telemedicine platforms, create delays in implementation. This affects digital transformation efforts, reducing efficiency in patient data management and remote healthcare accessibility.

Increased in no. of recalls and quality audits

- An increase in the number of audits places additional compliance pressure on healthcare institutions, requiring more administrative resources and documentation. Frequent inspections can strain hospital management, diverting attention from patient care to regulatory reporting and procedural adherence.
- Repeated audits lead to higher operational costs, as hospitals and pharmaceutical companies must invest in compliance teams, legal support, and process improvements. Failure to meet audit standards can result in penalties, reputational damage, and financial losses.
- Stringent auditing processes may delay healthcare service expansion, research initiatives, and new medical technology implementation. Extended scrutiny can slow down decision-making, affecting innovation and the timely introduction of advanced treatments.
- While audits improve transparency and accountability, excessive regulatory oversight may create operational inefficiencies. Hospitals and healthcare providers may become overly focused on meeting audit requirements rather than optimizing patient care, leading to bureaucratic bottlenecks and reduced service flexibility.

Failed Mergers and Acquisitions

- Failed mergers and acquisitions in the healthcare sector lead to financial losses and operational disruptions. High integration costs, misaligned business strategies, and regulatory hurdles often prevent successful consolidation, weakening the financial stability of the involved

entities.

- Cultural and operational differences between merging healthcare organizations create inefficiencies. Incompatible management styles, conflicting corporate values, and resistance from employees can hinder collaboration, leading to reduced productivity and service quality.
- Regulatory challenges and antitrust concerns delay or block healthcare mergers. Governments impose strict scrutiny to prevent monopolies, and failure to meet compliance requirements results in abandoned deals, wasted resources, and reputational damage.
- Unsuccessful acquisitions disrupt patient services and create uncertainty for stakeholders. Poorly executed transitions in hospital networks, insurance providers, or pharmaceutical companies can lead to system failures, staff layoffs, and reduced patient trust in the organization's reliability.

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.

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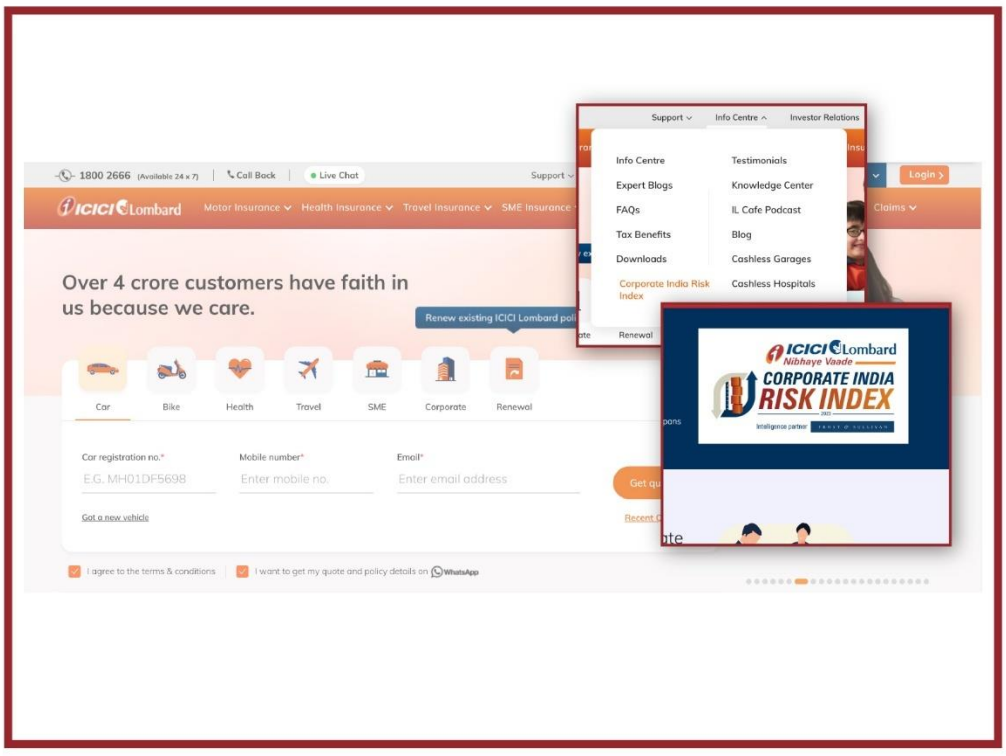

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