



ICICI Lombard
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**CORPORATE INDIA
RISK INDEX**

2022

Intelligence partner

FROST & SULLIVAN



**SECTOR REPORT 2022
HEALTHCARE & DELIVERY**





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Preface

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

The Healthcare sector has been growing tremendously in the last few years, with a Compound Annual Growth Rate of around 22% since 2016, making it one of the fastest-growing sectors in the economy in terms of revenue and employment.

The sector has seen growth due to factors like the aging population, growing middle class, added emphasis on public-private partnerships, and evasione of technology, including telemedicine and increased FDI inflows.

However, the sector has witnessed a growing medical inflation rate of around 14%, with spikes in input costs and an increase in the demand for medical insurance. One of the primary reasons for the growing medical inflation in India is the increasing demand for healthcare services due to the country's growing population and rising incidence of chronic diseases. The availability of advanced medical technologies and treatments has also contributed to rising costs.

Moreover, there is a lack of adequate healthcare infrastructure, which means that people often have to travel long distances and incur additional expenses to access medical care.

There exists a shortage of skilled healthcare workers along with beds per capita, and a larger proportion of medical services are present in urban areas, particularly t
undertaking structural reforms and policies to encourage FDI infl
also includes both short-term and long-term measures for the sec
the manufacturing of pharmaceuticals and medical devices in the

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 Defense, 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. Around 7.4% of the attacks in the Asian region were targeted at India in 2022.

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. From Surat Gas leak to landslides in the north and cyclones in Bay of Bengal, the year 2022 was no exception. Such natural disasters hamper the day-to-day operations of corporates, and it is important for them to understand that such risks cannot go unheeded. Over the years, Indian corporates have learnt to mitigate such risks by diversifying their supply chains, having multiple logistics partners, diversified geographical presence and multiple vendors.

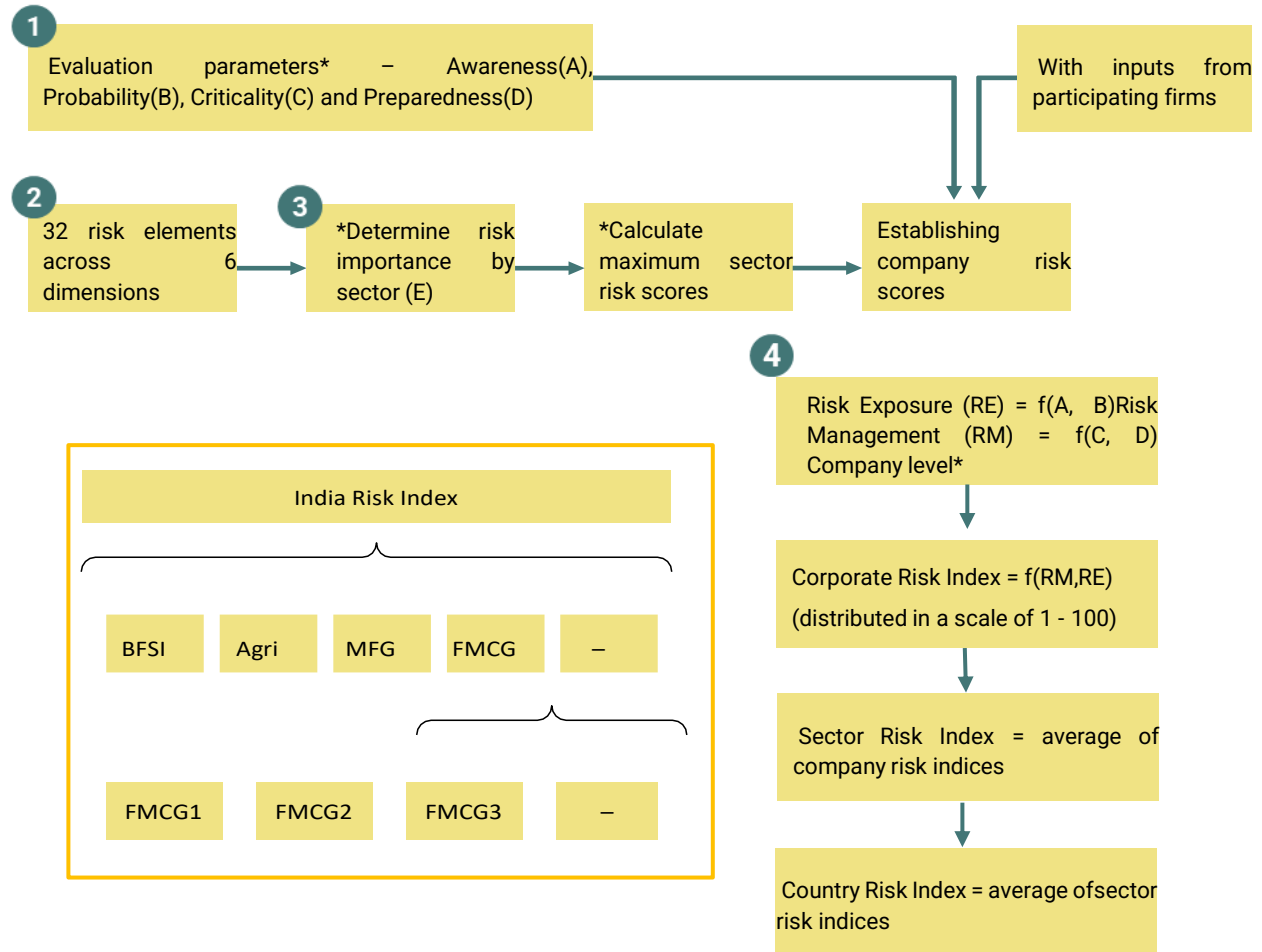
- **Pandemic and other global epidemic diseases:** Risk to business owing to disruptions caused by COVID-19 pandemic and similar another global epidemic.



Strategic risk

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



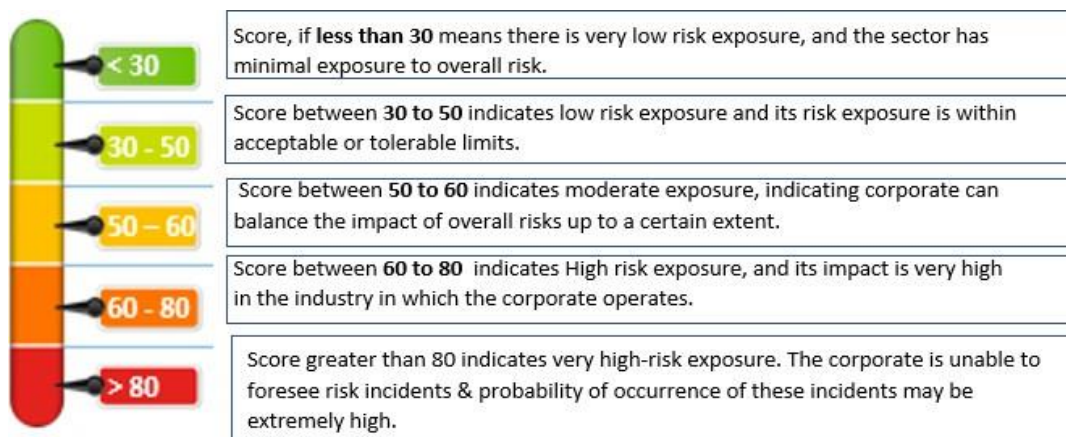
- 1. Evaluation Parameters*:** The index maps the risks faced by any enterprise basis of Awareness, Probability, Criticality and Preparedness against the defined Risk elements. The evaluation Parameters are defined as: Awareness - Level of awareness of potential risk affecting the firm. - Likelihood 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.

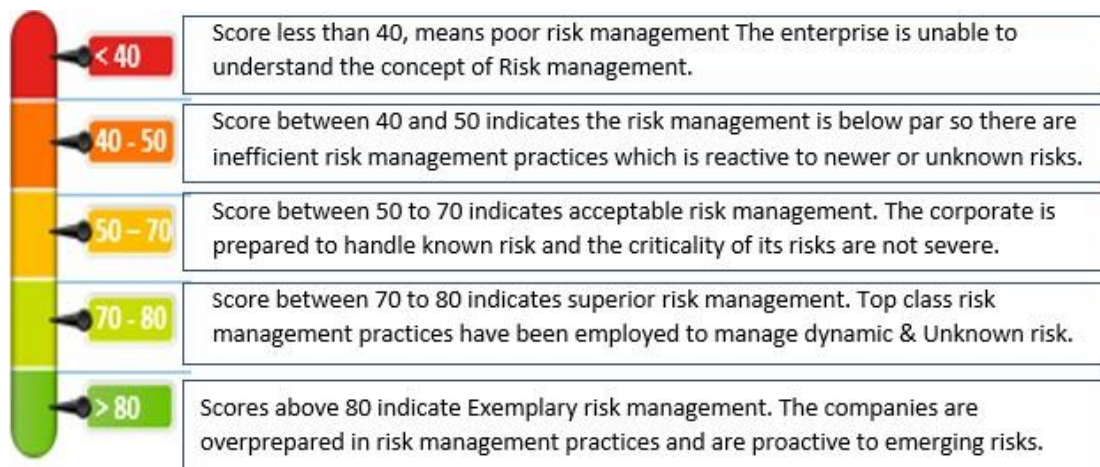
A. ICICI Lombard Corporate Risk Exposure – Scale

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

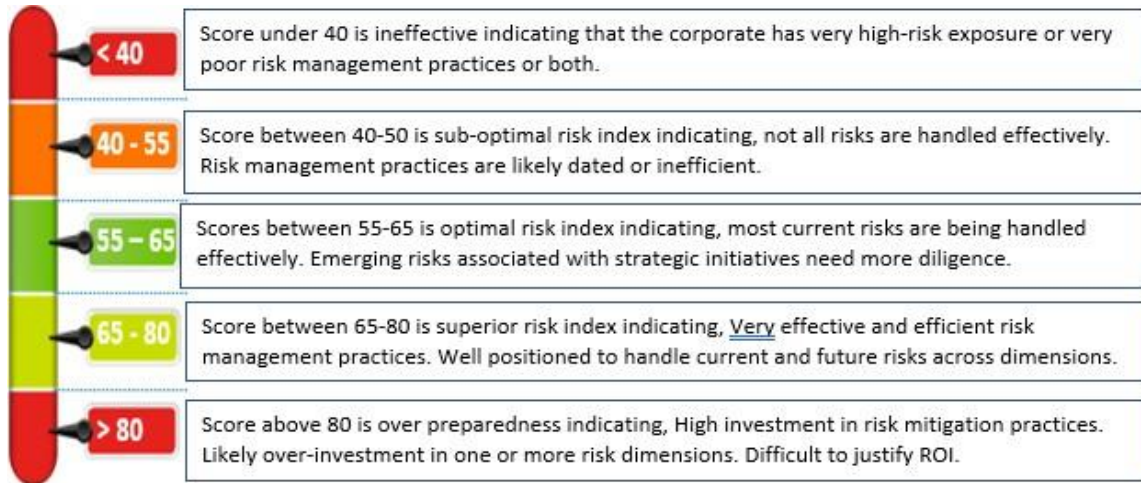
Risk Management: Identification, Evaluation and Prioritization of corporate risks followed by well-coordinated steps to minimize the occurrence of uncertainties in the foreseeable future is defined as the Corporate Risk Management. The risk management scale works in the opposite to that of the risk exposure 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 - Emerging Superpower with Optimized Corporate Risk Handling

Manufacturing sector contribution to India’s GDP in 2022 stands at 17% and is expected to grow to 25% by 2025, the expected growth is attributed to various favorable schemes initiated by Government of India like ‘Make in India’, ‘Digital India’, Improved Road Infrastructure, implementation of modern technologies of manufacturing resulting in optimized and effective production, Also the pandemic has made business realize that they cannot just rely on a single manufacturing hub; hence notion of “China+1” is making the world realize the significance of India. China is in a trade war with the USA, which is positively shaping the role India will play in the global arena.

The below chart showcases the gradual increase in India’s manufacturing exports.

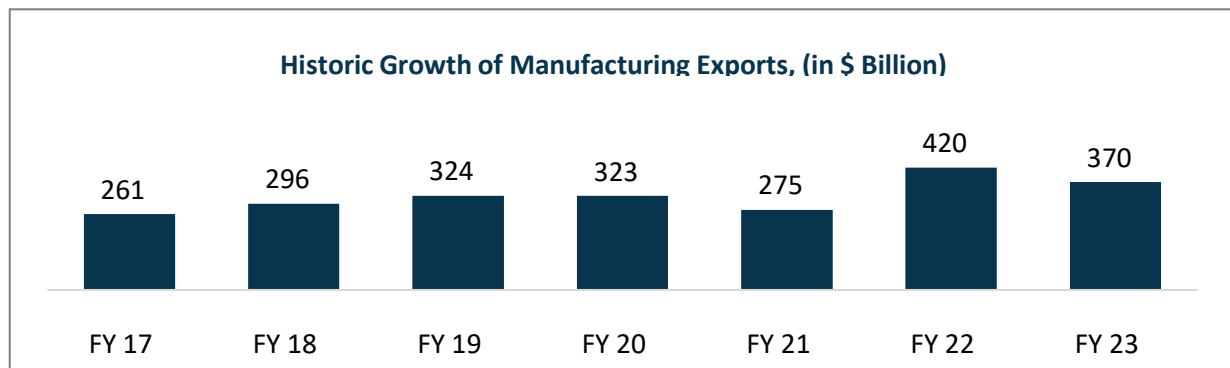


Figure 1: India’s Growth of manufacturing exports. (Source: Redseer)

Indian manufacturing sector is also focusing on electronics manufacturing like mobile phones, industrial electronics consumer electronics, etc. due to government initiatives the production has doubled since 2015.

Aerospace and defense sector in India have evolved significantly, Govt. of India have identified A&D as area of focus due to the belligerent neighborhood, steps like Make in India (Atmanirbhar Bharat) is helping the overall defense sector, however India still remains the largest importer of arms and ammunition, favorable policies and ease in regulations is helping the drone industry in India and many new start-ups and big players are entering in this space.

Urbanization is another phenomenon evolving in India and it is estimated that by 2030 more than 400 million people will be living in cities, due to this megatrend huge push towards realty and infra sector is observed which is also the growth of ancillary industries like metals, cement, water availability, sanitation, mobility etc., the government along with the private sector is working on multiple initiatives to manage the huge inflow.

India has observed a steady adoption towards EVs in recent years, though India adoption still remains very low in comparison to Europe, Canada, China, however all big auto players are coming with new lines of EVs, and significant strategic investment have been made. The adoption is primarily due to lower running

costs, lower maintenance, zero tailpipe emissions, tax and financial benefits by the government, convenience of charging.

BFSI sector in India is showcasing a significant robustness in the time of global crisis, there is a growing demand for financial services as there is a gradual rise in income across income brackets, with a rapid increase in mobile penetration and internet availability more than 2100 fintech companies have emerged in India, the traditional banks are also adopting the digital technologies at a required pace, investment on making the systems secured from cyber threats is utmost priority. Policy support by the government in the union budget 2021-22 is taking up shape and is helping the BFSI sector in 2022 and coming years, like government approval of 100% FDI for insurance intermediaries have increased the FDI limit to 74% from 49%.

Healthcare sector is also continuously growing healthcare has become the one of the India's largest employers, employing around 4.7 million people, though in 2021-22 India only spends 2.1% of its GDP in healthcare, in the union budget 2022-23, US\$ 11.28 billion was allocated to the Ministry of Health and Family Welfare (MoHFW). there is still huge room for improvement in the overall healthcare system in India. Efforts towards having well trained medical professionals in India is top priority. There were exemplary development in the vaccine manufacturing by India, Bharat Biotech Covaxin and Oxford AstraZeneca's Covishield manufactured by SII, helped India get a protection shield against Covid. There is a plan by the government of India to infuse US \$ 6 billion to boost the healthcare infrastructure in India.

The IT/ITes sector is a key engine for fueling India's economic growth and contributing to 7.5% of India's GDP in 2021-22, the Big four IT firms in India have recruited over 1 million employees, As the world is moving towards era of digital economy Indian IT-sector will be contributing significantly towards this journey, the rollout of 5G communication technologies and adoption of new age technologies across industries; like AI, Robotics, Internet of Things will further increase the size of Indian IT sector.

Indian enterprises are also concerned about the risks emerging out of the growing economy and the globalization India is heading towards, its observed that Indian enterprises are taking significant steps towards risk management and keeping budget allocated to implement best in class risk mitigation practices.

India Showcasing an Optimized Risk Handling



Figure 2: Corporate India Risk Index 2022

Corporate Risk Index Score of 63 implies that Indian enterprises are handling the risk in an optimal way but still there is scope of improvement to get into superior risk handling territory, Indian enterprises have a well-defined risk management practice in place for inherent risks, however risk management can be improved further as a potential buffer against potential risk events arising from market & economy, operational and technology related Risk events, openness towards adoption of technology and having a well-defined risk management team was observed across enterprises in India.

Sectorial categorization across above stated five categories, it was found that risk management is getting a paramount importance in the growth strategy of every organization and all the organization fell either into 'Superior Risk Management' or 'Optimal Risk Management' category.

From a risk exposure front the intensity of impact due to market and economy related risks increased due to the heightened inflation, global recession, and geopolitical tensions though from a regulation point the sector specific policies by the government helped the industries. Some of the inherent risks exposure due to the operational aspect did not see a significant change as compared to previous year, however companies are adopting diversification, technologically enabling the supply chain, and creating better hedging against financial related risks, whose results will be seen in coming years.

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

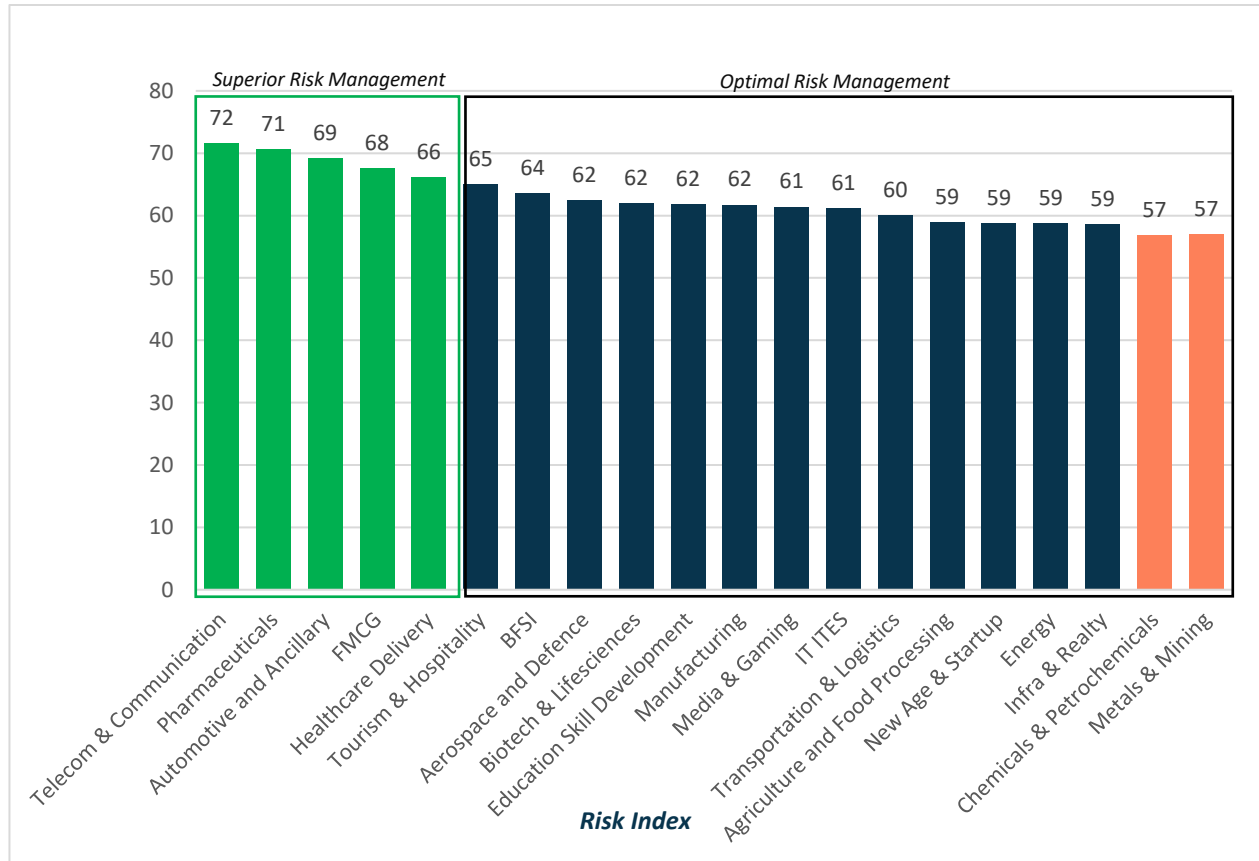


Figure 3: Corporate India Risk Index 2022 Sector Score

Superior Risk Index

Superior risk handling was found in five industrial sectors: Telecom & Communication, Pharmaceuticals, Automotive & Ancillary, FMCG, Healthcare Delivery.

Optimal Risk Index

Optimal risk handling was found in 15 industrial sectors: Tourism & Hospitality, BFSI, Aerospace & Defence, Biotech & Lifesciences, Education Skill Development, Manufacturing, Media and Gaming, IT & ITES, Transportation & Logistics, Agriculture and Food Processing, New Age & Startup, Energy, Infrastructure & Realty, Chemicals & Petrochemicals, Metals & Mining.

Healthcare & Delivery Sector Insights 2022

In 2020, India's healthcare industry was valued at around 280 billion USD and was predicted to reach 372 billion USD by 2022, with an annual growth rate of 23 percent. It is the largest service sector in the country and provides quality healthcare to the population of approximately 1.38 billion people, including hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment.

With a growing demand in meditourism, the Indian medical tourism market was estimated to be worth US\$2.89 billion in 2020, and by 2026, it is anticipated to be worth US\$13.42 billion. The India Tourism Statistics at a Glance 2020 report states that in FY19, around 697,300 foreign visitors came to India for medical treatment. India is ranked 10th overall out of 46 locations in the Medical Tourism Index (MTI) for 2020–21 by the Medical Tourism Association. Telemedicine has also transformed healthcare accessibility in India, particularly in remote and tribal areas, where high-level health facilities are scarce. Telehealth and telemedicine adoption is predicted to continue growing following the COVID-19 pandemic. Despite India accounting for nearly one-fifth of the world's population, its overall bed density is only 15, which is lower than the global median of 29 beds, as well as other developing countries such as Brazil, Malaysia, and Vietnam.

By 2025, it is predicted that the e-health market will be worth US\$10.6 billion. The Minister of Health & Family Welfare, Dr. Bharati Pravin Pawar, informed the Lok Sabha that the country's doctor population ratio is 1:854, assuming 80% availability of 12.68 lakh registered allopathic doctors and 5.65 lakh AYUSH doctors.

The healthcare industry in India is rapidly adopting technology, with a focus on artificial intelligence, big data analytics, and machine learning. This has resulted in process optimization, reduced healthcare costs, and better access to data. The use of robotics for process automation has also been adopted. India is now a hub for R&D activities for international players, largely due to its relatively low cost of clinical research.

The healthcare budget has been increasing year-over-year, with the Ministry of Health and Family Welfare (MoHFW) budget growing at an 11% compound annual growth rate (CAGR) between fiscal 2011 and fiscal 2022. Fiscal 2022 saw a significant rise in healthcare expenditure due to the expenses associated with tackling the Covid-19 pandemic. The utilization rate has been 100% or above in recent years, as it has been since fiscal 2016. In addition, according to data given by the Agency for Promotion of Industry and Internal Trade, FDI inflow for the medications and pharmaceuticals sector was at US\$19.90 billion between April 2000 and June 2022. (DPIIT)

The Pradhan Mantri Garib Kalyan Yojana announced a dedicated life insurance cover of Rs 5 million for healthcare workers, aimed at providing support to their families in case of death due to COVID-19. The government's focus on healthcare presents a significant opportunity for private investment to create affordable healthcare facilities and services. A significant portion of the overall healthcare spending was made by Indian households, who spent Rs 2,87,573 crore on healthcare services. The government has contributed Rs 2,42,219 crore to the country's current health expenditure, which is Rs 5,40,246 crore; where the Government is planning to develop India as a global healthcare hub and is planning to increase public health spending to 2.5% of the country's GDP by 2025. Also, the Indian government is making the

e-medical visa option available to nationals of 156 different nations in an effort to encourage medical tourism in the region. The healthcare industry in India is very diversified and offers numerous opportunities in each provider, payer, and medical technology segment.

Businesses are trying to investigate the newest dynamics and trends that will benefit their business because of the increased competition. With a CAGR of 16–17%, the hospital sector in India is projected to increase from Rs. 4 trillion (US\$ 61.79 billion) in FY17 to Rs. 8.6 trillion (US\$ 132.84 billion) by FY22. Medical device manufacturers have many prospects in India. With significant capital expenditure for cutting-edge diagnostic facilities, the nation has also emerged as one of the top locations for high-end diagnostic services, serving a larger section of the populace. Also, Indian customers of medical services are more concerned with maintaining their health. Future demand for healthcare services is anticipated to increase due to factors such as advancing income levels, an aging population, rising health awareness, and shifting attitudes toward preventative healthcare. Healthcare spending increased due to more people having health insurance, which is expected to continue over the next 10 years.

Despite the growth potential, the healthcare sector in India faces several challenges, including inadequate infrastructure and inequality in the quality of healthcare services based on affordability and financing. As the proportion of OOPE on health has decreased over the years, it remains much higher than the global average of 18.1 percent as of 2019, according to the World Bank.

Healthcare & Delivery Sector Risk Index 2022 Vs 2021

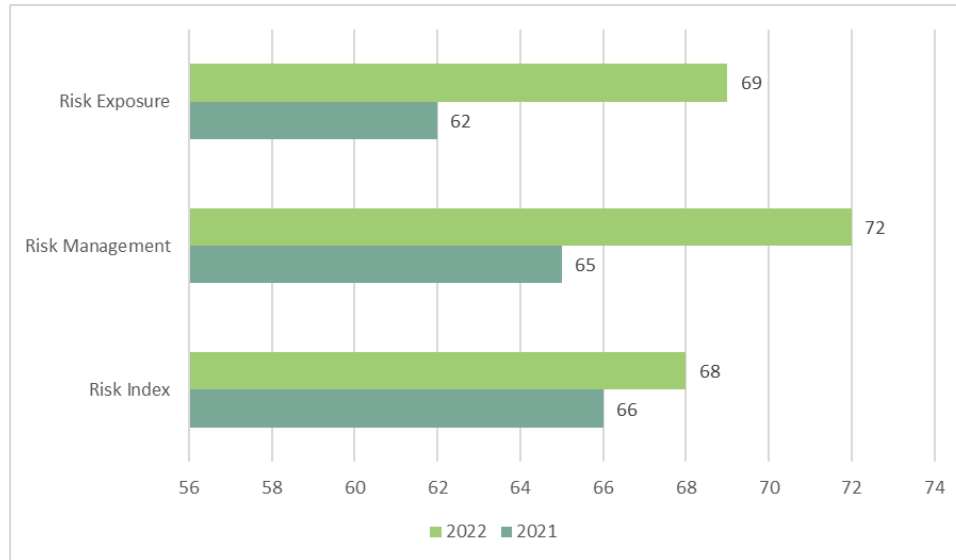


Figure 4: Detailed Comparative Analysis 2021 Vs. 2022

Healthcare & Delivery Sector Risk Index 2022 Vs 2021

The overall Risk Index for the healthcare delivery sector slightly improved to 66 from 65 in 2022 that can be attributed to significant improvement in the sector in the post pandemic world. The pandemic had provided the necessary acceleration for change in the sector and healthcare organizations became more resilient and agile by innovating with digitally enabled data models and technological enablement.

Healthcare & Delivery sector Risk Management 2022 Vs 2021

The sector risk management has reduced from 65 to 60 which is in turn attributed to the lack of appropriate measures in place to handle the risk posed by cybercrimes and possible epidemic diseases. There has been an increased inflation in the sector at 14% which has not been reduced by appropriate measures and regulations in place leading to an increased demand for medical premiums.

Healthcare & Delivery Sector Risk Exposure 2022 Vs 2021

The risk exposure for the sector has significantly reduced from 62 to 56 in 2022 which is due to reduction in resource scarcity and natural hazard risk posed by the pandemic. The sector has however been slow in adopting new technologies and the risk of data compromise is still high with India being a prime target for cybercrimes particularly for the healthcare sector.

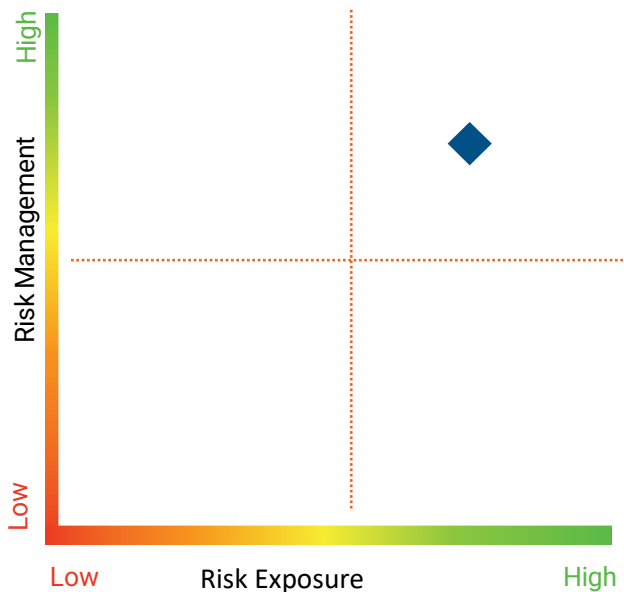
Key Highlights



Risk Dimension Analysis: Market and Economy

Risk Exposure Score: 60

Risk Management Score: 63



Inflation

- In 2021, India had the highest medical inflation rate among Asian countries, at 14%.
- During the COVID-19 crisis in late 2020 and 2021, healthcare supply input costs spiked, with labor costs per adjusted hospital discharge growing by 25% between 2019 and 2022.
- One of the consequences of the increasing costs of medical treatment in India is the rise in health insurance premiums.
- In 2022, there was a 25% overall growth in the demand for medical insurance in India, indicating the continued high demand for healthcare coverage.

Regulatory Risk

- A World Health Organization (WHO) review has identified the lack of regulation in the private sector and the need to strengthen resources, governance, and quality in the public sector as urgent issues in the Indian health system that need to be addressed.
- In India, low public health expenditure has resulted in 63% of total spending on health being out-of-pocket, which is one of the highest rates globally. The absence of healthcare reforms has led to much of the gains from economic reforms being squandered among the poor.
- Despite the availability of PLI schemes, their impact has not been as expected. Furthermore, they are geared more toward larger companies rather than small businesses and MSMEs, which make up 80% of India's manufacturing.
- One of the most pressing issues in the country is the affordability of healthcare, which has been addressed through the introduction of various social insurance programs at both the national and state levels, including RSBY, Rajiv Arogyasri, and Yeshaswini.

Geopolitical Risks

- India considers Russia and Ukraine important export markets for its pharmaceutical products, especially as Russia is one of the biggest importers of Indian generic medicines.
- During the pandemic, the prices of all active pharmaceutical ingredients (APIs) experienced a sharp increase due to importers and exporters stockpiling.

Competitive Risk

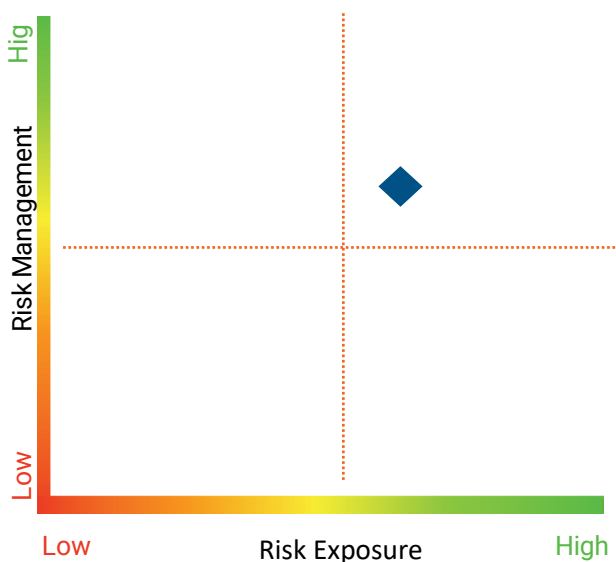
- Despite being the fourth largest medical device manufacturer in Asia, India faces tough competition from countries like China and Taiwan that have better infrastructure, lower costs, and more favourable regulatory environments.
- Leading Indian pharma companies have made significant investments to become global players by expanding domestically and collaborating overseas, turning India into a hot spot for biotechnology and pharmaceuticals. India has become a hub for producing small molecule generics, vaccines, insulins, and other biologic therapies.



Risk Dimension Analysis: Technology

Risk Exposure Score: 60

Risk Management Score: 63



Disruptive Technology

- The Indian healthcare sector has been slow to adopt new technologies and innovations due to various factors, including lack of funding, infrastructure, and skilled workforce. This has led to a gap in healthcare services, particularly in rural areas.
- A report by PwC India states that "India needs to focus on developing a strong healthcare innovation ecosystem to address the current gaps and improve healthcare access and outcomes."
- The most common cause of medical device failure in India was observed to be due to technological obsolescence.

Data Compromise

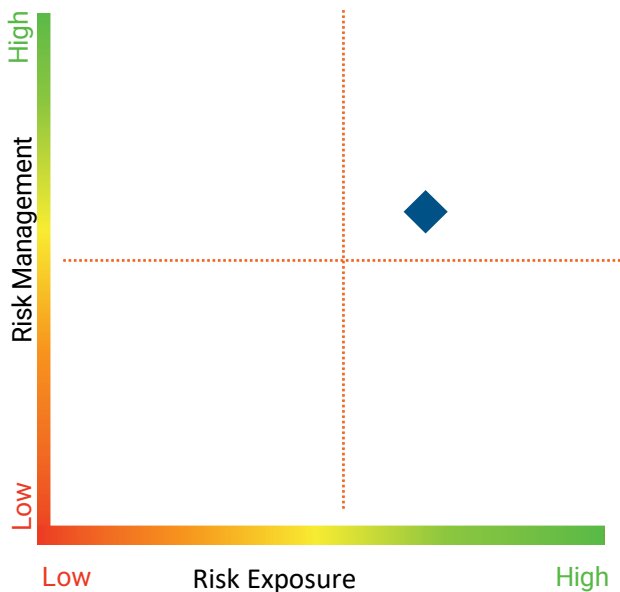
- Many incidents highlight the need for increased cybersecurity measures in the Indian healthcare sector.
- In February 2021, a cyber-attack on Dr. Reddy's Laboratories, a major pharmaceutical company in India, resulted in the theft of confidential data related to the company's Covid-19 vaccine development.



Risk Dimension Analysis: Operational and Physical

Risk Exposure Score: 59

Risk Management Score: 61



Critical Infrastructure Failure

- According to the data, India has a ratio of 1.4 beds per 1,000 individuals, 1 doctor for every 1,445 individuals, and 1.7 nurses per 1,000 individuals.
- The government's healthcare expenditure, the disparity between demand and supply, and persistent scarcities are among the issues that require immediate attention.
- Business Continuity/ Sustainability
- In addition to the primary stakeholders, enhancing health outcomes also depends on innovations in the external environment and other social determinants.

- Improved hygiene and sanitation conditions through campaigns like Total Sanitation Campaign, and initiatives to empower women such as Self-Help Groups can have a positive impact on health outcomes.
- According to the Standard Chartered SDG Investment Map, an investment of USD 2.64 trillion is required to achieve the SDGs in India. This presents an opportunity for the private sector to invest over USD 1.12 trillion by 2030.

Portfolio Risk

- The country has a total of 12,760 hospitals with 576,793 beds. Among them, 6,795 hospitals with 149,690 beds are located in rural areas, while 3,748 hospitals with 399,195 beds are located in urban areas.
- Healthcare services are concentrated in metro cities: The Central Government Health Scheme (CGHS) provides health facilities in 24 cities, with 246 allopathic dispensaries and a total of 438 dispensaries across the country, serving 8,47,081 registered cards/families. However, there are significant disparities as the majority of these facilities (almost two-thirds) are concentrated in four metro cities.

Environmental Risk

- India faces a significant challenge in dealing with the imbalances arising from climate change, with recent studies highlighting the country's poor performance in addressing climate-related concerns. India ranked at the bottom of the list in the Environment Performance Index 2022.
- In rural India, the adverse effects of climate change are exacerbating existing challenges. For instance, floods can damage people's livelihoods and increase the spread of communicable diseases, which are treatable but difficult to manage due to a lack of adequate healthcare facilities in rural areas.

Workplace Accident

- Healthcare personnel faces various challenges that negatively affect their health, such as illnesses, fires, and inadequate working conditions.
- Out of all industry sectors, healthcare workers have some of the highest rates of work-related injuries and illnesses. Infections and poorly designed workplaces are also factors that can impact the well-being of healthcare professionals.

Human Resource

- The World Health Organization has recommended a doctor-patient ratio of 1:1000, but in India, the current ratio stands at 1:1456. This is a matter of concern, especially with the increasing burden of both non-communicable and communicable diseases.
- Furthermore, it is projected that by 2025, there will be a shortage of 200,000 to 450,000 registered nurses and 50,000 to 80,000 doctors (10 to 20 percent and 6 to 10 percent of the workforce, respectively). As a result, healthcare labor cost growth is expected to surpass inflation.

Financial Risk

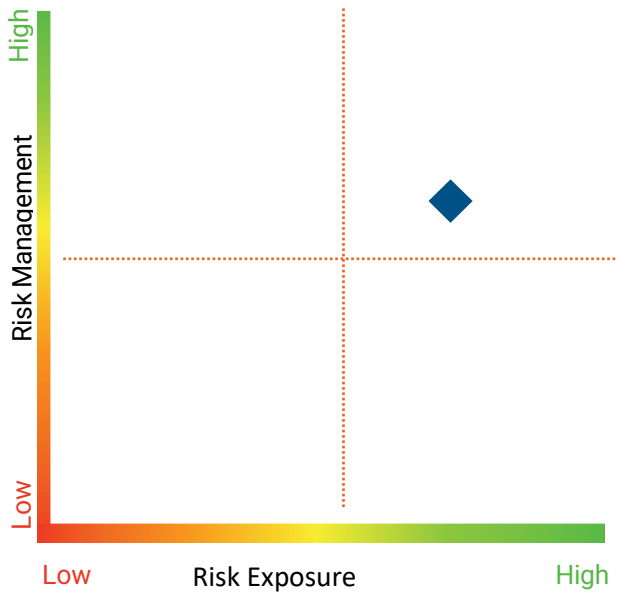
- Over the past year, the industry has experienced a 10% decline. However, there is optimism regarding future earnings, with a projected annual growth rate of 21%.
- Compared to its 3-year average PE ratio of 45.4x, the Medical Equipment industry is currently trading at a higher value, indicating that investors have a positive outlook on this sector.



Risk Dimension Analysis: Crime and Security

Risk Exposure Score: 53

Risk Management Score: 56



Cyber Crimes

- A report released by CloudSEK revealed that India ranked second in cyberattacks on healthcare systems globally in 2021, accounting for 7.7% of total cyberattacks.
- These attacks are carried out for various reasons, including blackmail and financial gain, making the healthcare industry a prime target for hackers.

Threat to Women's Security:

- A study has revealed that young doctors are more susceptible to workplace violence, while female doctors are particularly vulnerable in the healthcare industry.

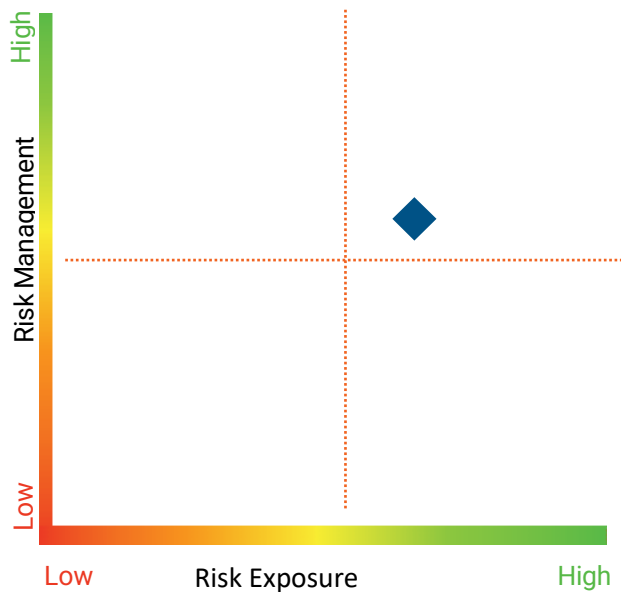
Terrorism:

- India has faced security challenges from terrorist groups in the past, and the healthcare sector could potentially be a target in the future.
- While the overall risk of terrorism in the Indian healthcare industry may be low, it is still important for healthcare facilities to have appropriate security measures in place to prevent and respond to potential threats.

Risk Dimension Analysis: Natural Hazard and Event

Risk Exposure Score: 54

Risk Management Score: 58



Natural Hazards:

- Natural hazards have highlighted the need for better disaster management planning and infrastructure in the Indian healthcare industry.
- Heavy rains and floods, cyclone and other natural hazards have caused significant damage to hospitals and healthcare infrastructure.

Pandemic and other global epidemic diseases

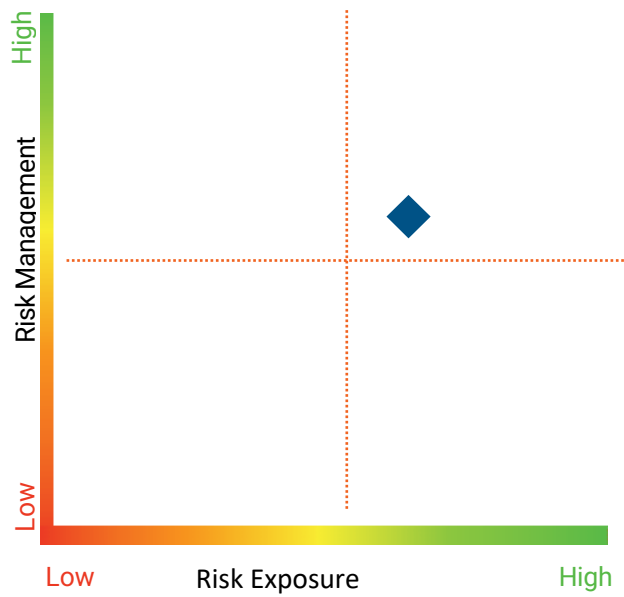
- The COVID-19 pandemic has highlighted the risks and challenges faced by the Indian healthcare industry in managing and responding to epidemics.
- A strong infrastructure needs to be in place for better preparedness in future.



Risk Dimension Analysis: Strategic Risk

Risk Exposure Score: 52

Risk Management Score: 58



Public Sentiment

- According to a study, nearly 75% of doctors in India have experienced some form of violence during their practice. Of all reported incidents, almost 50% occurred in intensive care units (ICUs), with patient relatives being actively involved in 70% of the cases.
- The highest incidence of violence was reported in the Obstetrics and Gynecology department, followed by the Internal Medicine and Surgery departments.

Failed/ Hostile Mergers & Acquisitions

- While M&A activity can bring about benefits such as increased efficiency and access to new technologies, it can also result in challenges such as cultural clashes and financial risks.
- A recent example of M&A risk in the Indian healthcare industry is the failed merger between Fortis Healthcare and Manipal Health Enterprises. The proposed deal fell through after months of negotiations and legal battles, leading to uncertainty for both companies and their stakeholders.

ICICI LOMBARD: Key Solution Offerings



Property

- a. Businesses are always prone to risks and fire eruption and fire insurance provides a comprehensive protection against damages caused due to fire explosion and other risks. Besides fire related perils, it also protect damages caused due to any natural calamity, bursting of water tanks, theft etc. The built in covers include alterations or extensions, stocks on floater basis, temporary removal of stock, cover for specific contents, start-up expenses, professional fees, costs for removal of debris etc
- b. **Solutions**
 - i. **Property Loss Prevention exercise** - We have developed the methodology of Property Value Added Services for corporate customers which focuses on technical engagement with detail risk visit, followed by benchmarking of the risk (Industry Risk Profiling).
 - ii. **Fire Hydrant IoT** - Fire hydrant online monitoring devices use IoT to monitor fire hydrants and assure their availability in emergencies. We've helped multiple corporate customers maintain and monitor this important fire safety component in real time.



Marine

- a. We offer specially curated plans for covering the risk of theft, malicious damage, shortage, and non-delivery of goods, damages during loading and unloading, and mishandling of goods/cargo
- b. Marine Cargo insurance primarily covers loss during transit caused due to fire, explosion, hijacks, accidents, collisions, and overturning
- c. **Solutions**
 - i. **GPS Device Tracking:** With the help of our advance GPS devices we can have bird eye view on the consignment and vehicle from anywhere in the world. OurSAAS allows us to track and get the visibility of the vehicle on the basis of our requirements which is fully customizable



Liability

a. Comprehensive general liability:

- i. This policy is important for every small and medium sized businesses to protect the insured entity against claims arising out of legal liability where they are held responsible for third party bodily injury or property damage due to insured's business, premises or products. It should be taken by every new business as it covers all risk a business may face.

b. Cyber - With cyber risk steadily increasing, security/ data breaches affect millions of records a year. Cyber Risk insurance coverage is designed to help an organization mitigate its risk exposure by offsetting costs involved with recovery after a cyber-related security breach or similar event.

c. Solutions

- i. **Simulated phishing tests** - Simulated real looking phishing tests and record employee behavior to phishing attacks along with training collateral in form of co-brandable posters, infographics and videos
- ii. **Cyber maturity assessments** - Assess the security posture of your organization and identify the potential risks with our assessment based on ISO 27001 Control measures for Information security
- iii. **D&O** - The need of Directors & Officers Insurance is more than ever before. Any breach or non-performance in the duties can result in claims against directors, officers and employees by reason of wrongful act and need to incur various expenses like defense costs, damages or compensation and other incidental costs. This can affect company's growth and performance.



Group Health

- a. Employees are the backbone of an organization and the most valued asset. Our Group health insurance product is designed to offer health coverage to suit employees of all business types ranging from small & medium enterprises to large organizations.

b. Solutions:

- i. **IL Take Care** - AI enabled mobile app for employees
- ii. **Health assistance services** - Health Assistance is a dedicated medical care service that assists you in all your health related queries for identifying specialist/hospital/fixing an appointment with doctors/nutritionist /facilitating 2nd opinion
- iii. **Tele Consultation** – Hello Doctor
- iv. The insured is eligible to avail unlimited General Physician consultations for routine health issues over the phone by a qualified doctor
- v. **Diagnostics & pharmacy services** – Book a lab test or home delivery of medicines



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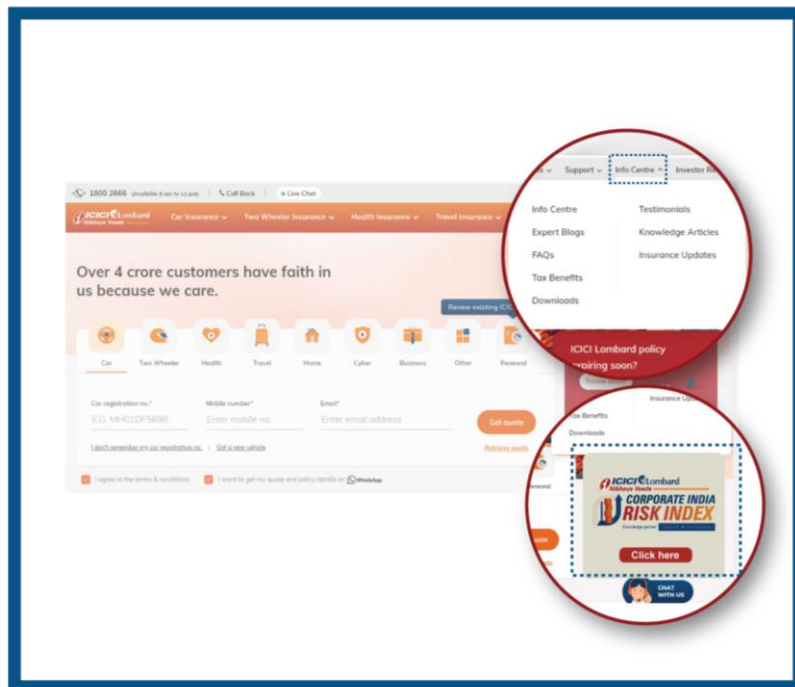
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Now accessible at

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