# KNOWLEDGE **PAPERS**

## Series 3/2024



**FICCI PwC Knowledge Report on Strengthening the impact of Investments in Railway Infrastructure**

This report assesses the impact of investments on India's rail infrastructure, highlighting opportunities and challenges. It focusses on enhancing resilience, building capacity through skill development, and leveraging technologies such as artificial intelligence and IoT. It serves as a unique platform for stakeholders, policymakers, and investors, promoting sustainable growth and ensuring a resilient and adaptable rail network for India's evolving economy.

**https://www.ficci.in/api/study_details/23980**



**The Experts' Voice: A compendium of articles 2024**

Indian capital markets have been one of the best performing among emerging markets in FY24, reflecting India's bright economic stature. Significant interest from domestic and global investors in the Indian stock market and sustained IPO activity make our markets an attractive investment destination. Eyes set firmly on India@100, capital markets are set to play an even greater role to support India's growth trajectory and realise Government's vision of Viksit Bharat. Against this backdrop, 21st edition of FICCI's Capital Markets Conference is focused on Capital Market Reforms 2.0 for Viksit Bharat and would deliberate on the interventions required to realise the transformative potential of capital markets. On the occasion, The Experts' Voice, a compendium of articles contributed by members of FICCI's National Committee on Capital Markets was presented, outlining opportunities to deepen the market by increasing retail and institutional participation - both domestic and foreign, building AI capabilities, leveraging technology, innovation, empowering retail investors, enhancing financial literacy, awareness and such others.

**https://www.ficci.in/api/study_details/23983**



**FICCI Compendium on Leading Best Practices in Road Safety in India 2024**

The report on "Compendium on Leading Best Practices in Road Safety in India", showcases exemplary road safety initiatives across India, highlighting successful strategies and interventions that have significantly reduced road accidents and fatalities. The compendium includes detailed case studies from various states, demonstrating the effectiveness of different approaches in improving road safety. By documenting these best practices, the compendium aims to provide a valuable reference for policymakers, road safety professionals, and other stakeholders. It encourages the replication of successful interventions in similar high-risk areas across the country. The launch of this report serves as a call to action, urging all stakeholders to adopt and implement these proven strategies to create a safer road environment for all.

**https://www.ficci.in/api/study_details/23998**



**AMMO India 2024**

The ammunition market is integral to the global defence industry, underscoring its importance for national security and military efficacy. This report dives into the global ammunition landscape with a special focus on India, highlighting current trends, challenges, and opportunities for growth. Globally, the demand for ammunition is estimated at INR1,29,260 crores1 (USD15.5 Bn)1 in 2023 and is expected to grow to INR184,092 crores1 (USD22.0 Bn)1 in 2032, at a CAGR of 3.95 per cent1 over the next decade. Geopolitical conflicts, increase in the military spending and rising insurgency are the primary reasons for this growth. We observe that nations are taking proactive measures to secure their borders as regional conflicts boil over. With increased demand, the global ammunition supply is set to increase and become efficient with the advent of robust technologies. Finally, the report outlines steps for the growth of India's ammunition production capabilities. There is a clear need for increased investment in Research and Development (R&D), improved financial incentives to attract foreign players for access to technology and a short- to long-term plan on identifying export opportunities. Such measures will dictate India's right to win at the centre stage of the global ammunition industry and increase its soft-power and global relevance for years to come. As India continues to focus on self-reliance and innovation, the future of its ammunition market looks promising, ready to meet both domestic and global defence needs. This optimistic outlook reflects a nation on the precipice of significant advancements, poised to make substantial contributions to the global defence landscape.

**https://www.ficci.in/api/study_details/23985**



**FICCI-CRISIL Knowledge Report on 'Collaborative Approaches to Improving Road Safety in India: The Role of Stakeholders'**

The FICCI-CRISIL Knowledge Report emphasizes the crucial role of various stakeholders—government bodies, private sector players, civil society organizations, and individuals—in creating a safer road environment. It underscores that road safety is a collective responsibility, not just the duty of a single entity. The report calls for the implementation of stricter regulations, improvements in road infrastructure, enhanced driver education, and the promotion of a safety culture. Each stakeholder has a vital role in reducing road accidents and saving lives. As we progress, the report serves as a call to action for all stakeholders. The insights and recommendations provided are not merely guidelines but essential imperatives and best practices. By collaborating, we can establish a safer, more responsible, and resilient road network that supports national growth while protecting our most valuable resource—our people. This collective effort is key to fostering a road environment that prioritizes safety and responsibility.

**https://www.ficci.in/api/study_details/23997**



### Charting the path forward in city gas distribution: Emerging trends and insights

The report highlights key factors influencing the CGD sector, including infrastructure development, policy frameworks, energy demand, and economic conditions. This insight is crucial for stakeholders aiming to navigate the complexities of the CGD sector and capitalise on emerging opportunities.

**https://www.ficci.in/api/study_details/23984**



### India's HR Revolution- Building workplaces for the future

HR in India is undergoing radical change, with companies integrating cutting-edge technologies across the HR value chain and developing innovative strategies to unlock human potential. The survey respondents represent a diverse mix of large, medium, and small enterprises across all major sectors, making these findings representative of current trends in the Indian corporate landscape. This report provides a strategic overview of the key trends shaping the future of Human Resources in India. From embedding purpose into organizational culture through ESG initiatives to leveraging the power of GenAI and predictive analytics, this report outlines the essential steps HR leaders must take to build resilient, inclusive, and future-ready organizations. By focusing on employee well-being, fostering diversity and inclusion, and embracing technological innovations, companies can unlock new levels of productivity, engagement, and innovation and build workplaces of the future.

**https://www.ficci.in/api/study_details/23992**



### Identifying AI generated content in the digital age: The role of watermarking

Today, Artificial Intelligence (AI) capabilities are generating text and images that are often indistinguishable from those created by humans. As AI continues to increase in sophistication, it has also raised concerns about the source and authenticity of content that is available and in use on the internet, social media platforms, and other digital spaces.

AI-generated content and authenticity

The extensive use of AI-generated output and digital content as the basis or source of information often leads to humans forming opinions and making decisions based on it. Therefore, it becomes important for the consumers of such information to recognize the difference between AI-generated and human generated content, whether it's in the form of text, images, videos or audio. Until now, public discourse has largely centered on issues such as spread of deep fakes and impersonation, fake news and social manipulation, false attribution, lack of AI content detection mechanisms and copyrights. However, the issue is much wider. Organizations are increasingly deploying AI to develop new products and services and to improve the efficiency of existing systems. Clarity on the source of inputs used, therefore, becomes important.

**https://www.ficci.in/api/study_details/24003**



### Advancing Tunneling in India Challenges, priorities and potential solutions

The report underscores the crucial role of tunneling in India's infrastructure development, addressing major challenges like time and cost overruns due to geotechnical uncertainties, inefficient risk-sharing in contracts, and skilled labor shortages. It highlights emerging trends such as sustainable tunneling practices using low-carbon materials, reuse of excavation waste, and the adoption of advanced technologies like digital twins and AI to advance the sector. The report also emphasizes the need for specialized skills development, stronger safety regulations, and the integration of digital technologies to overcome these challenges.

**https://www.ficci.in/api/study_details/23993**



### Banking for a Viksit Bharat

The report highlights that India's banking system is strong, with high profitability, robust capital adequacy, and low levels of NPAs. With regard to future growth, achieving a $30 trillion GDP by 2047 requires a 20x growth in the financial services sector, with banks playing a pivotal role. This will need a $4 trillion capital base in banks, with 1/3rd as fresh capital.

Further, the five key structural themes that the report focuses on are:

1. Future of Household Savings: Households are increasingly shifting from physical to financial assets, and from informal to formal borrowing channels. There is need for innovative deposit products, and structural support for targeted lending.
2. Asset Quality & Leverage: There is a need to address the growth in unsecured lending and re-imagine operating models for retail and MSME lending. Retail lending has driven financial inclusion and profitability for the banking industry. The shape of this growth is very different though. Unsecured lending has grown much faster. The unsecured to secured loan mix is 30:70 in India (vs. 10:90 for many large economies).
3. Productivity Vision: There is a need to reimagine operating models to manage rising costs and breaking legacy cost structures.

   Digital Funnel Growth: Leading Indian banks rank among the top globally in digital maturity, however, banks still need to monetize the digital opportunity across other dimensions like product fulfilment journeys and money insights.
4. Building Future Capabilities: The Indian banking system has made significant strides in building future-ready competencies but must embrace resilience, addressing the "GenAI paradox," tackling climate risk, and enhancing cyber security.

The report also provides suggestion for banks, regulators and government.

**https://www.ficci.in/api/study_details/23994**

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**Knowledge Paper on Embracing Transformation in Textiles: Sustainability, Digitalization and Innovation**

The FICCI Wazir knowledge report on Embracing Transformation: Sustainability, Digitalization and Innovation, which was released by Smt. Roop Rashi, Textile Commissioner, Ministry of Textiles, Government of India during FICCI's Annual Textile conference TAG 2024 in Mumbai, highlights major key trends shaping the textile Industry. These trends include buyers diversifying from China; Growing demand for synthetic textiles and evolving sourcing strategies of buyers including sourcing consolidation and preference towards vertically Integrated setups. The report highlights how Global brands are embracing sustainability amidst Changing Regulatory Landscape, and how sustainability can be achieved through various measures. The report also provided overview of Impact of Digitalization for global competitiveness and how Key Technologies such as Automation and Robotics Artificial Intelligence (AI), Blockchain, 3D Printing and Virtual Prototyping are Driving Digitalization. On Emerging Innovation in textile industry, report highlights various innovations taking place in material, Process, sustainability , nanotechnology and customization and personalization through AI tools. FICCI Wazir report provides a roadmap on the policy support required from government on each of the key pillars of Sustainability, Digitization and Innovation as well as Infrastructure support for the textile clusters for the sustainable growth of the Industry. It also suggests role of private sector by way of bringing increased focus on value-added products as well as Product Diversification.

**https://www.ficci.in/api/study_details/24004**




**The Indian Maize Sector- Trends, Challenges & Imperatives for Sustainable Growth**

This report reviews the global as well as domestic production, consumption, and trade trends, delves into the key challenges faced across various legs of the supply chain and identifies select interventions that could boost sustainable long-term growth of India's maize ecosystem. This report will serve as a reference document to inspire actions and pave the way for transformative changes required to build a more resilient and prosperous maize sector in India.

Key imperatives for sustaining growth of maize sector identified in the report are:

- Develop a roadmap to scale up maize production and acreage.
- Ensure faster and broader adoption of new technologies.
- Devise effective extension programs to promote adoption of good agricultural practices.
- Strengthen post-harvest infrastructure for building a robust maize supply chain.
- Facilitate maize supply security for diverse industry.
- Promote private sector investment across the maize value chain through various incentives and schemes.

**https://www.ficci.in/api/study_details/24008**

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