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THE FISCAL TRACK

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INSIDE THE ISSUE

ARTICLE 1

Simple Guide to Understanding Financial Statements and Forensic Analysis (Part-I) by Nikhil Sharma, IRMS (Accounts) 2022.

EVENTS AT IRIFM

- Observance of "World Environment Day"
- Observance of International Day of Yoga
- Participation in the panel discussion at **4th edition of ET Rail Show 2025**
- Valedictory for the Probationers of IRMS(A) 2022 batch

ARTICLE 3

From PDF to Pivot: 5 Office Tools to Level Up Your Financial Workflow by Saran Kumar. U, Chartered Accountant.

SPECIAL FOCUS

Despite the massive electrification over Indian Railways in past decade, total fuel costs have not decreased significantly, as the rise in electricity expenditure has only offset the decline in diesel expenditure.

Understanding this Trend of Traction Expenditure of IR by S.Santhi Raju, IRAS, ADG/IRIFM is the special focus of this month's issue.

ARTICLE 2

Smart Contracts in Tenders: A Gamechanger for Indian Railways written by Archit Dhoopar, IRMS (A) 2022 & reviewed by Sitharamaraju, IRAS, Dean/IRIFM.

RAILWAY BUDGET AT A GLANCE

“Knowledge, if it does not determine action, is dead to us.”

– Plotinus

FROM DG'S DESK



Dear friends and esteemed readers,

The focus on celebrating the Environment Day and the International Day of Yoga in the month of June brings into focus the most pressing issue of our times - 'sustainability'. Simplistically putting across, it is the philosophy of live and let live, so that long term survival is not compromised. Sustainable living is about the 'choices' we make an individual, as an organization and as a nation.

The journey from 'ME' to 'WE' to be precise.

India's transport and logistics sector is navigating a dynamic phase, it has gained significant traction in recent times marked by steady demand, evolving cost structures and growing emphasis on sustainability. The logistics cost in India is 14% as against the global average of 8% (as per the Economic Survey 2022-23). A study by NCAER disputes this. However, there is consensus to improve it on nationwide basis.

The unit cost of rail transport is lower than road by Rs 1.6 per PKM and the social costs for rail mode are lower by Rs 1.7 per km making Railways, as the preferred choice (as per NTPDC Report). Projected increase in the rail share will thus serve to bring down the overall cost of logistics. The market share of Rail has been hovering in the range of 26-28% and the National Rail Plan (NRP) aims to bring a significant shift in the modal share taking this to 45%.

Increasing Rail's modal share to reduce overall logistics costs and enhanced efficiency is a best way to serve the social and environment objectives. Time and again Indian Railways has reaffirmed its commitment to environment sustainability by prioritising electrification and proliferating use of LED. With over 23 million passengers, 7000+ stations and vast catering operations, Railways is uniquely positioned to lead by example and amplify national impact by serving as a nation-wide behavioural change platform driving collective change.

Promoting and expanding 'Green Railway Station' initiative with solar panels, rainwater harvesting, effective waste management, mandating afforestation plantation drives along the rail corridors are some of the other measures which can have a nationwide impact.

#BeatPlasticPollution is the theme propagated this year, bringing in to focus, how as an organization we can drive the change.

The plastic waste generated in the country was 4.14 million tonnes in 2023. India's plastic pollution emissions @ 9.3 mt/pa is the highest in the world. Source: India Today 23/06/25

Ban and regulation of single-use plastic, including selling of eatables packed in plastic, promoting eco-friendly material in IRCTC catering services and incentivising returnable and re-useable containers in its pricing scheme can be easily implemented.

Presently, IRCTC projects 'Rail Neer' as one of its verticals for growth, but it can be a change-maker by making a strategic shift in its narrative by aggressively batting for minimizing and eliminating plastic. While booking the tickets as 'meal option' is given with fare add-on; so also, a bottled water option with sizes can be a choice, with discount in fare if 'no bottled water' is chosen.

Installing plastic bottle crushers at appropriate points, setting up recycling tie-ups and plastic-to-product conversion units, include 'plastic management' as a key criterion in green station rating, especially in the new upcoming Amrit Bharat stations. IR can become a torchbearer in India's fight against plastic pollution.

As the use of rail mode for the larger good is to be promoted, sustainable finance management is the next logical thing. Targeted freight initiatives and enabling PPP framework and rationalized subsidy structure, especially towards passenger fare losses, will go a long way in achieving this. IR must blend green technology, financial prudence and modern infrastructure to meet the sustainability goals.

FROM DG'S DESK

An active engagement by Sr.DFM's/ Dy.FAs' and conscious mindfulness on this matter in work place can be a precursor to bringing a noticeable difference.

With United Nations declaring 21st June (the day of Summer Solstice) as the International Day of Yoga in 2014, the ancient practice found State patronage. Again, a choice made unanimously by 177 nations. We are in the 11th year of this new found awareness and the State supported events. Yoga as a means for holistic wellbeing is a sustainable practice for all to follow. Institute had its largest gathering of yoga enthusiasts all in readiness before 6.30 am in the lawn adjacent to the auditorium. After listening to the Hon'ble address by PM, we had an hour-long session.

The Campus was abuzz with a lot of hectic activity in the run-up to celebrating the first 'IRIFM Day'. It was in the month of June 2013 that the foundation stone was laid for this Institute. The day was not just a celebration of our Institute's journey, it was a re-affirmation of our shared commitment to financial learning, leadership, service and capacity building of IR and beyond.

The gaiety and enthusiasm was unmissable with 55 young Probationers gathered in their fineries to celebrate the day with renewed pride, purpose and promise. It also marked the valedictory for IRMS (Accounts) Probationary Officers of 2022 batch.

June also marked a major milestone in the annals of IR as the rail link to Kashmir via Chenab rail bridge became a reality on 7th of June. Two other significant news of IR which needs to be highlighted were the successful trials of: upgraded Kavach version 4 implying greater location accuracy, specially for large yards, station to station communication over OFC and direct integration with EI system and advance control system for train running. IR continues its forward march in the area's connectivity, safety and cleaner tomorrow.

Warm regards,

Aparna Garg, IRAS
Director General,
Indian Railways Institute of Financial Management.

"Just start.

Start slow if you have to.

Start small if you have to.

Start privately if you have to.

Just start."

– James Clear

RAILWAY BUDGET AT A GLANCE

ANALYSIS OF CATEGORY-WISE PASSENGER REVENUE BUDGET TARGETS OF IR

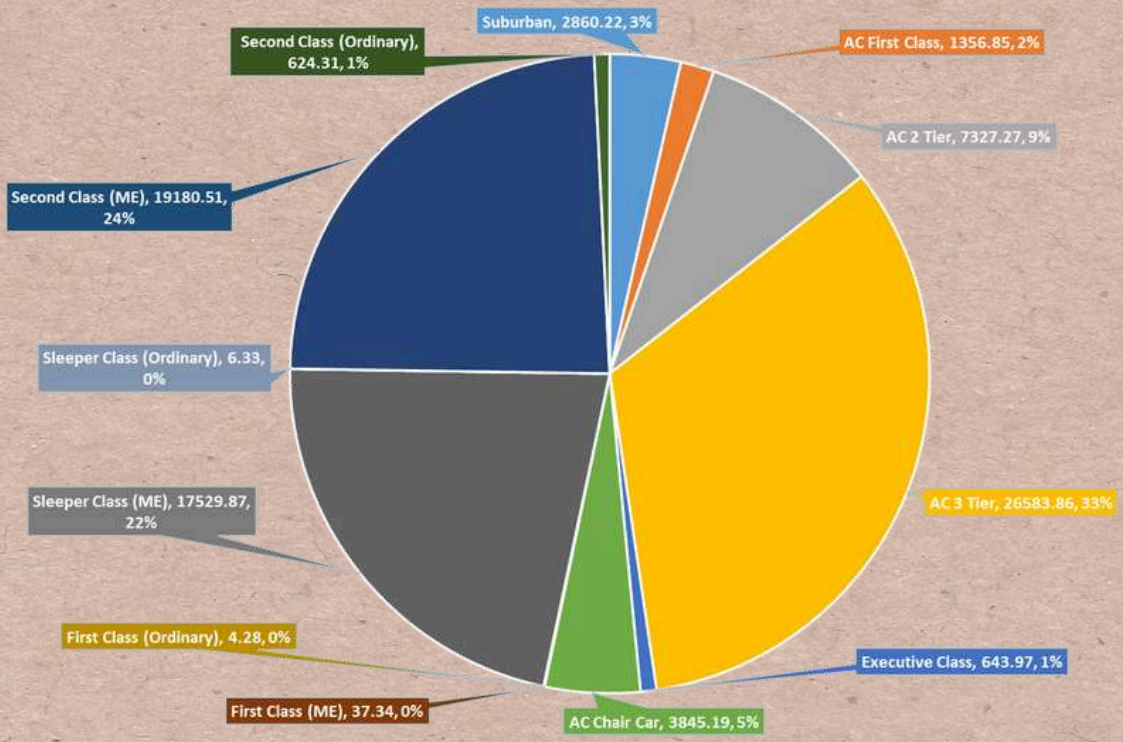
Figs. In Rs. Cr

DESCRIPTION	BE 2024-25	BE 2025-26	GROWTH%
Suburban	**2860.22**	**3070.56**	**7.35**
Non-Suburban			
AC First Class	1356.85	1526.58	12.51
AC 2 Tier	7327.27	8776.18	19.77
AC 3 Tier	26583.86	37115.32	39.62
Executive Class	643.97	987.12	53.29
AC Chair Car	3845.19	5626.01	46.31
First Class (ME)	37.34	40.62	8.78
First Class (Ordinary)	4.28	6.5	51.87
Sleeper Class (ME)	17529.87	16508.55	-5.83
Sleeper Class (Ordinary)	6.33	5.76	-9.00
Second Class (ME)	19180.51	17510.8	-8.71
Second Class (Ordinary)	624.31	1626	160.45
Total Non-Suburban	**77139.78**	**89729.44**	**16.32**
Grand Total	**80000**	**92800**	**16.00**

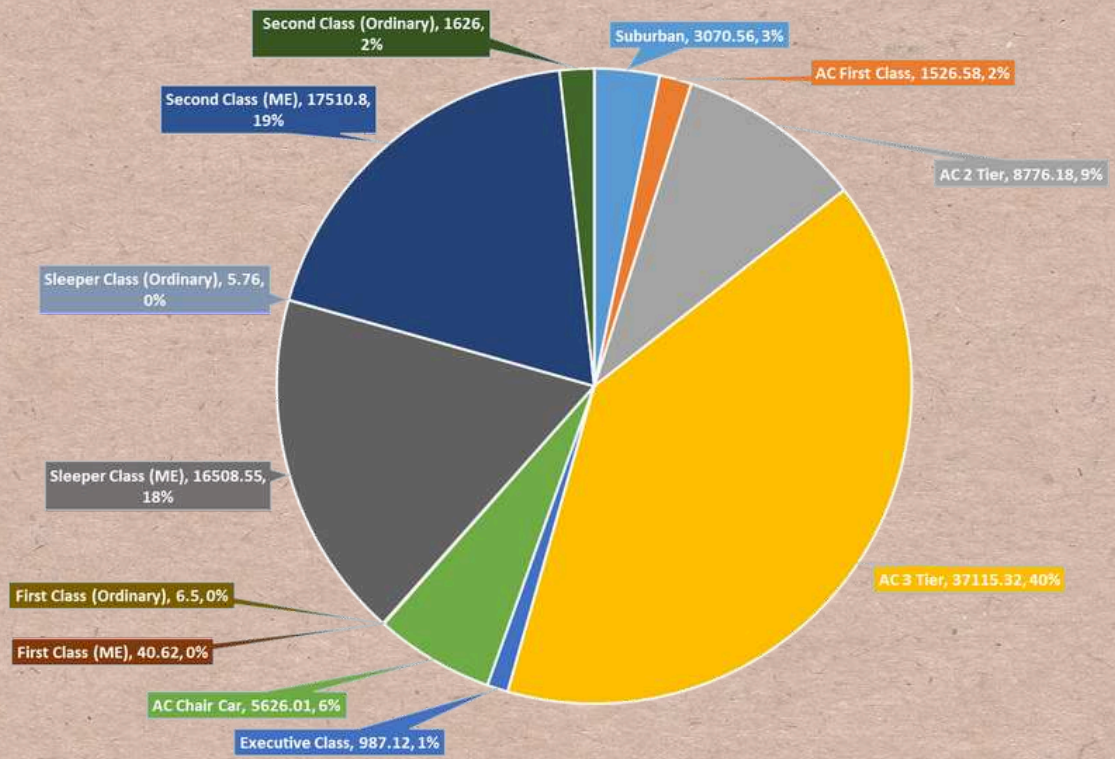
Source: www.indiabudget.gov.in

RAILWAY BUDGET AT A GLANCE

BE 2024-25



BE 2025-26



From the above, it seems that RB expects more revenue from second class(ordinary) in non-suburban trains in current FY as there is an increase of 160.45% in current FY target as compared to that of last FY under the category. Other classes where target given is more than 50% of last FY are Executive Class & First Class(Ordinary) in non-suburban trains.

Source: www.indiabudget.gov.in

SIMPLE GUIDE TO UNDERSTANDING FINANCIAL STATEMENTS AND FORENSIC ANALYSIS (PART-I)

- BY NIKHIL SHARMA, IRMS (A) 2022



The article introduces the basics of financial statements and their role in assessing a organisation's financial health. The purpose, key elements and usage of each financial statement is presented for easy understanding. It also throws light on financial ratios - Profitability Ratios, Leverage Ratios, Liquidity Ratios and Efficiency Ratios.

Through a case study of RITES, the author has demonstrated how to interpret key financial metrics.

What are Financial Statements?

Financial statements are formal records of the financial activities and position of a business, individual, or other entity. They provide critical insights into a company's financial performance and are essential for decision-making by stakeholders like investors, creditors, and management.

Types of Financial Statements:

1. Income Statement (Profit & Loss Statement)		
Purpose: Shows a company's revenues and expenses over a specific period, revealing profit or loss.	**Key Elements:** • Revenue/Sales • Cost of Goods Sold (COGS) • Gross Profit • Operating Expenses • Operating Profit • Net Income	**Usage:** • Assess profitability over time • Evaluate performance against budget • Determine tax liability • Help investors gauge earning potential
2. Balance Sheet (Statement of Financial Position)		
Purpose: Provides a snapshot of a company's financial position at a specific point in time.	**Key Elements:** • **Assets:** Current (cash, inventory) and Non-current (equipment, property) • **Liabilities:** Current (accounts payable) and Long-term (loans) • **Equity:** Owner's capital, retained earnings	**Usage:** • Analyze financial health and stability • Assess liquidity and solvency • Understand capital structure • Guide investment and lending decisions

3. Cash Flow Statement		
Purpose: Reports the inflow and outflow of cash within a business over a period.	**Key Elements:** • **Operating Activities:** Cash from core business operations • **Investing Activities:** Cash from buying/selling assets • **Financing Activities:** Cash from loans, equity, and dividends	**Usage:** • Monitor liquidity and cash position • Identify cash generation efficiency • Forecast future cash needs • Evaluate ability to meet obligations
4. Statement of changes in Equity (or Retained Earnings)		
Purpose: Shows changes in the owner's equity over an accounting period.	**Key Elements:** • Net income or loss • Dividends paid • Issuance or buyback of shares • Other comprehensive income	**Usage:** • Track retained earnings • Understand how profits are reinvested or distributed • Monitor shareholder value changes

4 types of Ratios:

PROFITABILITY RATIOS
How well does the company generate profits?

LEVERAGE RATIOS
How extensively is the company using debt?

LIQUIDITY RATIOS
Does the company have enough cash to pay the bills?

EFFICIENCY RATIOS
How efficiently does the company use its assets and capital?

Formulae:

PROFITABILITY RATIOS

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Assets}} \times 100$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

LEVERAGE RATIOS



$$\text{Debt to Equity Ratio (D/E)} = \frac{\text{Total Debt}}{\text{Total Shareholders Equity}}$$

$$\text{Interest coverage ratio} = \frac{\text{Earnings before interest and tax}}{\text{Interest expense}}$$

LIQUIDITY RATIOS

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \qquad \text{Quick Ratio} = \frac{\text{Current Assets - Inventories}}{\text{Current Liabilities}}$$

$$\text{Cash Ratio} = \frac{\text{Cash \& Cash Equivalent + Short-term Investments}}{\text{Current Liabilities}}$$

EFFICIENCY RATIOS

$$\text{Asset Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Total Assets}}$$

Case Study

RITES

Current Ratio= 3,189.08 / 4,886.81 = 1.53

Interpretation:

- The company has ₹1.53 in current assets for every ₹1 of current liabilities, indicating strong short-term liquidity.
- Low Risk: Comfortable buffer to meet short-term debts (e.g., payables, working capital needs).
- Efficiency Check: A ratio too high (>2.0) may suggest idle assets (e.g., excess cash or inventory).

Return on Equity (ROE) = 423.66/2749.26 = 0.154

Interpretation:

- For every ₹100 of equity, RITES generated ₹15.40 in profit, indicating moderate efficiency in using equity capital.
- ROE is adequate but declining–focus on profitability over expansion
- Decline to 15.4% in FY25 suggests reduced profitability or increased equity base.
- Improve Margins: Cost optimization in low-margin segments

Total Assets Efficiency Ratio = 2217.81/6119.29

Interpretation:

- The company generates ₹0.36 in revenue for every ₹1 invested in assets.
- <0.5x: Low efficiency (typical for capital-heavy industries like infrastructure).
- Sector-Normal: RITES' asset-heavy business (projects, leasing) justifies lower turnover.
- Higher revenue per asset rupee would boost ROE

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Disclaimer: Views expressed are personal and do not reflect the official policy/ position of the Institute.

SPECIAL FOCUS

UNDERSTANDING INDIAN RAILWAYS' EXPENDITURE TREND ON TRACTION

- BY S. SANTHI RAJU, IRAS, ADG/IRIFM



The article analyzes Indian Railways' traction electrification and associated expenditure trends. Despite the massive electrification, total fuel costs have not decreased significantly, as the rise in electricity expenditure has only offset the decline in diesel expenditure. Recommendations include strategic diesel phase-out and full electrification, adoption of 100% open access for power procurement, coupled with renewable energy integration, which can maximize savings and sustainability.

ELECTRIFICATION OVER IR

Indian Railways electrified 44,868 km, growing from 24,479 km to 66,669 km (172.35% increase), reaching 98% of its 68,000 km broad-gauge network by 2024–25. Annual electrification slowed to 1,091 km in 2024–25 as most routes are completed, leaving 1,331 km in challenging terrains.

STATEMENT SHOWING TREND OF ELECTRIFICATION OF IR (TRACTION) FROM 2015-16 TO 2024-25

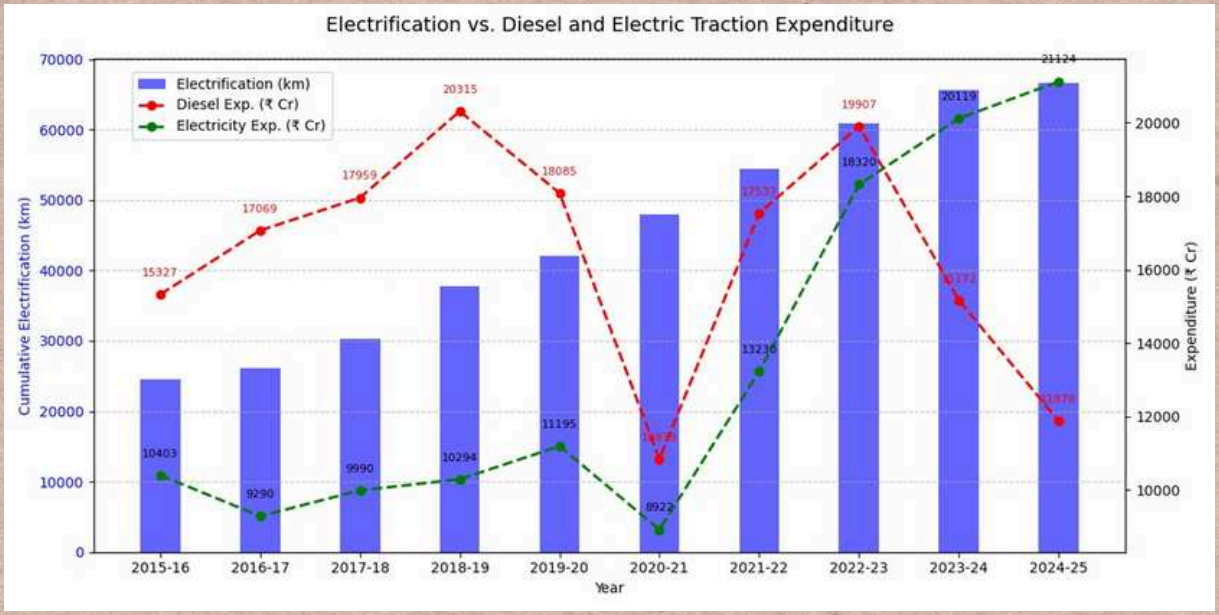
Year	Cumulative Electrification (km)	Diesel Locomotives	Electric Locomotives	Diesel for Traction (₹ Cr)	Electricity for Traction (₹ Cr)	Total Fuel	Total Ordinary Working Expenses	% Fuel over Ordinary Working Expenses	% Diesel over Ordinary Working Expenses	% Electricity over Ordinary Working Expenses
1	2	3	4	5	6	5+6	8	%	%	%
2015–16	24,479	5,869	5,214	15,327.16	10,402.95	25,730.11	107735.93	23.88	14.23	9.66
2016–17	26,125	6,023	5,399	17,069.36	9,289.52	26,358.88	118829.61	22.18	14.36	7.82
2017–18	30,212	6,086	5,639	17,959.22	9,990.11	27,949.33	128496.51	21.75	13.98	7.77
2018–19	37,794	6,049	6,059	20,314.79	10,294.47	30,609.26	140200.30	21.83	14.49	7.34
2019–20	41,988	5,898	6,792	18,084.68	11,194.99	29,279.67	150211.21	19.49	12.04	7.45
2020–21	48,003	5,108	7,587	10,838.55	8,922.43	19,760.98	135844.51	14.55	7.98	6.57
2021–22	54,369	4,747	8,429	17,537.18	13,230.40	30,767.58	156506.34	19.66	11.21	8.45
2022–23	60,934	4,730	9,565	19,907.49	18,319.91	38,227.40	180255.78	21.21	11.04	10.16
2023–24	65,578	4,397	10,675	15,171.91	20,118.80	35,290.71	191093.62	18.47	7.94	10.53
2024–25(RG)	66,669	4,045	11,927*	11,878.17	21,124.31	33,002.48	208000.00	15.87	5.71	10.16

EXPENDITURE (Traction):

- Expenditure on Diesel for Traction fell 41.5% (from ₹20,314.79 Cr to ₹11,878.17 Cr).
- Expenditure on Electricity for Traction increased 127% (₹9289.52 Cr to ₹21,124.31 Cr).

NUMBER OF ENGINES:

- Electric locomotives grew 128.74% (from 5,214 to 11,927).
- Diesel locomotives dropped 31.07% (from 5869 to 4045) by 2024–25
- Electric-to-diesel ratio increased from 0.89 to 2.95, a 231.46% increase.



SUGGESTION FOR DIESEL LOCOMOTIVES

1. Phase-Out Strategy:

- Retire Older Engines: Retire 3,000 (75%) diesel locomotives over 3–5 years, retaining 1,045 (25%) for non-electrified/emergency use.
- Heritage Use: Repurpose some diesel engines for tourist/heritage trains.
- Rationalization of running diesel locomotives under wire.

2. Optimize Utilization:

- Route Allocation: Use diesel only on the 1,331 km non-electrified routes; optimize with data analytics.
- Freight Focus: Assign diesel to low-traffic freight in non-electrified regions.

3. Cost And Environmental Benefits:

- Savings: reducing to 1045 engines could save ₹8000 cr/year (fuel).
- Emissions: Supports net-zero goal; needs renewable energy to reach 50% of traction power by 2030.

4. 100% Open Access Procurement:

- Adopting 100% open access allows Indian Railways to purchase electricity directly from competitive suppliers at market determinant rates. This approach can significantly reduce power tariffs, improve transparency and support large-scale integration of renewable energy sources.

CONCLUSION

Railway electrification surged 172.35 % (24,479 km to 66,669 km) from 2014 to 2025, achieving 98% coverage of Broad Gauge. However, Total Fuel expenditure (Diesel + Electricity) increased from Rs.25,730.11 Cr in 2015–16 to a peak of 48.57% increase (Rs.38,227.40 Cr) in 2022–23 then slightly decline to Rs.33,002.48 Cr in 2024–25 and stabilized at 28.26% increase by 2024–25. Despite the massive electrification, total fuel costs have not decreased significantly, as the rise in electricity expenditure has only offset the decline in diesel expenditure. This enabled a 128.74% increase in electric locomotives and a 31.07% decrease in diesel locomotives. With 3964 (98%) of 4045 diesel engines underutilized, they cost ₹11,640 Cr annually (fuel). Thus, recommendations include retiring 75% of older Diesel Locomotives, optimizing diesel deployment, and completing electrification. This shift could save ₹8000 Cr/year (fuel), enhance energy security, and align with Indian Railways' net-zero by 2030 goal–if renewable energy adoption accelerates.

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EVENTS AT IRIFM

5th June 2025: Observance of **"World Environment Day"** on the theme #BeatPlasticPollution by taking pledge of commitment to reduce, reuse, and recycle plastics, as well as promoting sustainable alternatives.



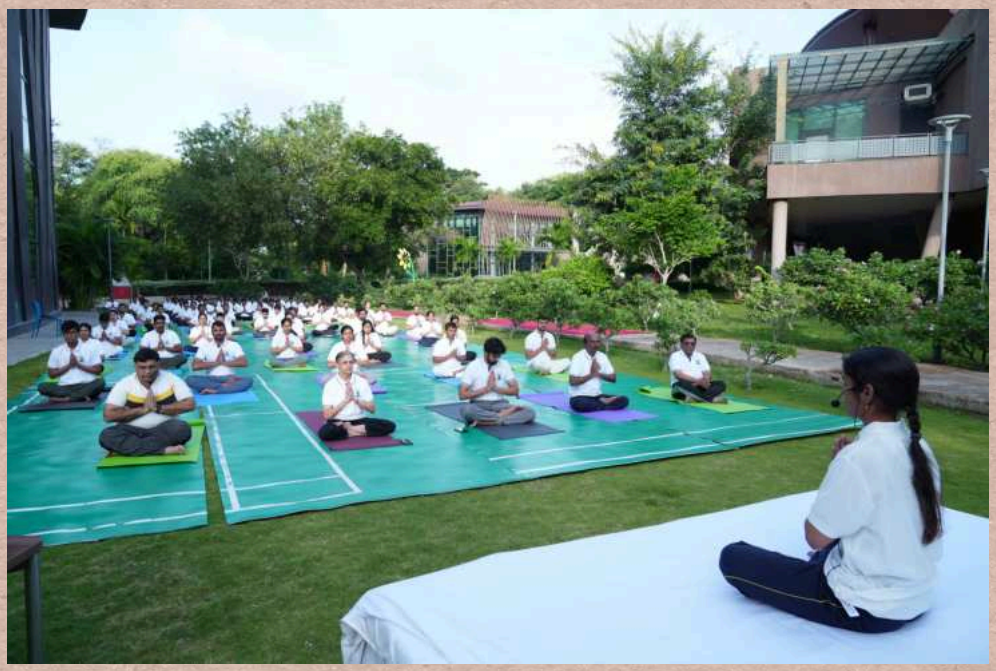
Smt. Aparna Garg, Director General/IRIFM administering green pledge to Officers, Officer Trainees & Staff

13th June 2025: DG/IRIFM participated in **the panel discussion on "The Business of Railways – Unlocking Growth, Investments & Policy Reforms"** at the 4th edition of "ET Infra Rail Show 2025" held at New Delhi, where top policymakers, institutional heads, and industry leaders convened.



EVENTS AT IRIFM

21st June 2025: Observance of **"International Day of Yoga":** Yoga for One Earth One Health



27th June 2025: Valedictory for the Probationers of IRMS(A) 2022 batch,
where Usha Venugopal, Member Finance, Railway Board was present.



SMART CONTRACTS IN TENDERS: A GAMECHANGER FOR INDIAN RAILWAYS

- WRITTEN BY ARCHIT DHOOPAR, IRMS (A) 2022

& REVIEWED BY K. SITHARAMARAJU, IRAS, DEAN/IRIFM

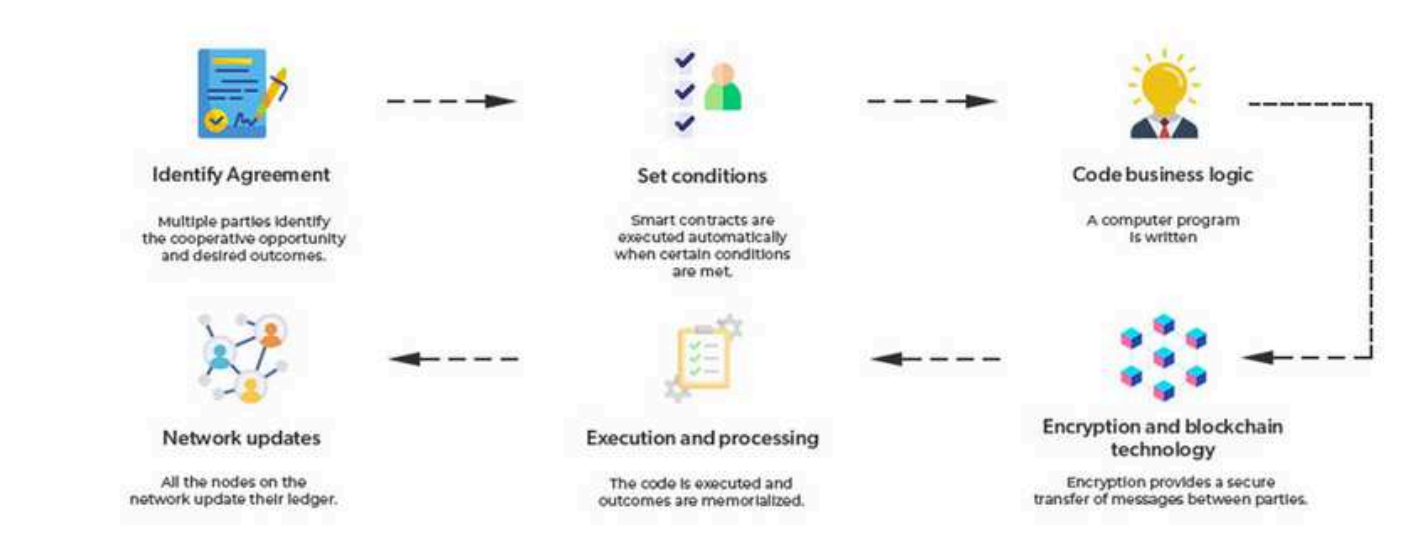


Smart contracts, first proposed by Nick Szabo, are self-executing digital agreements on blockchain that enhance transparency and automate processes. The IPEC Journal of Science & Technology 2022 paper on "Smart Contracts through Block-chain" by Krishna Kumar & Others from Indraprastha Engineering College has showed a concept note for adaption in Government procurement. Research and pilot initiatives suggest smart contracts can significantly improve time savings in tendering, compliance, and payment processes in public sector infrastructure, including potential applications in Indian Railways. The author is advising to adapt the same in Railways at the earliest, as the technological feasibility and benefits are well-established and documented.

In the Amrit Kaal of this great Nation, the journey to a Viksit Bharat by 2047 has gained momentum through technology. Globally, digital transformation is reshaping industries, and Indian Railways–a lifeline of the nation– and a forerunner in technology adoption in Indian Government setup is also evolving by embracing modern technologies. One of the most promising innovations that demands attention is the use of smart contracts in tendering processes. These blockchain-based agreements have the potential to revolutionize procurement, enhance transparency, and eliminate inefficiencies that have long affected the public sector tendering systems. But what exactly are these Smart Contracts we ask.

Smart Contracts were first proposed in 1994 by Nick Szabo, an American computer scientist who conceptualized a virtual currency called "Bit Gold" in 1998, 10 years before Bitcoin was introduced. Szabo defined smart contracts as computerized transaction protocols that execute the terms of a contract. It is a self-executing digital contract stored on a blockchain. The terms of the agreement are directly written into code, and the contract automatically enforces itself when predefined conditions are met. They are scripts that contain functions, module imports, and other programming that automate the actions between two parties. Thus, unlike traditional contracts, smart contracts do not require intermediaries and are tamper-proof once deployed. For example, there can be a condition that 40% payment will be released after 50% percent of the work is completed. Smart contract will track the updates on the work completion and as soon as 50% is completed and the data is received for the same, the 40% tranche of payment will be released. This makes it easier to process payment in a real time manner.

Let us understand how do they actually work. A smart contract is a self-executing digital agreement stored on a blockchain, with its terms and conditions encoded directly into lines of code. These contracts operate based on predefined logical statements, primarily using IF-THEN conditions, which trigger specific actions when certain requirements are met. For example, if one party sends a particular asset, the agreed-upon payment in cryptocurrency is automatically transferred. Additionally, smart contracts can incorporate time-based constraints using WHEN clauses, allowing for deadlines and scheduled actions. Each contract has a unique address on the blockchain, making it accessible for interaction once it is deployed on the network. These digital contracts eliminate the need for intermediaries, reduce the risk of fraud, and ensure transparency and accuracy in execution. Their logic-driven nature allows for flexibility, with no limit to the number of conditional statements that can be included. Ultimately, smart contracts streamline agreements and foster trust in digital transactions across various platforms.



Let us now examine the need of Smart contracts in Government, especially railway tendering system. It has been observed time and again that the current tendering system is plagued with many issues. We often find issues such as Delays in tender processing and payments, Lack of real-time tracking of contract performance, Risk of human errors and manipulation, Tedious documentation and compliance verification, Litigation and disputes due to ambiguous terms or procedural lapses. One of the biggest reasons behind all these is that despite using technology such as IRePS, IRWCMS modules, the major work is done physically including framing the contract, to its execution, inspections and dealing with variations etc. Thus, there remains a gap of complete digitalization, which can be filled by the use of smart contracts.

Smart contracts can automate every stage of the tender lifecycle–from bid submission, evaluation, and award to execution and payment–minimizing manual intervention and errors. This reduces delays and brings consistency across zones and divisions. After the conditions are programmed in the system, smart contracts can help us develop model contracts which can ease the process of framing the contract. Along with that, the use of IoT sensors, cameras, geotagging etc., can help us track the work in progress in real time thus reducing delays and cost overruns. Along with this, All bid details (technical and financial) can be securely stored on the blockchain, making the tendering process tamper-proof and auditable. This discourages favoritism, manipulation, or cartel formation among bidders. It can also help in automating the compliance checks, i.e. Regulatory and financial compliance conditions (like MSME preferences, Make-in-India mandates, past performance, financial capacity, etc.) can be coded into the smart contract. It will automatically screen out non-compliant bidders, saving time and ensuring fairness. Along with that, Variations or amendments in scope, quantity, or rates are a frequent issue. Smart contracts can handle approved deviations automatically if rules are predefined–this enables faster decision-making and audit compliance. There also remains some scope for customization as, different types of tenders–works, services, goods, consultancy–have varying needs. Smart contract templates can be customized accordingly, streamlining the process and reducing the need for repetitive manual drafting.

Another useful application of smart contracts in Railways is at the end of Materials management i.e. procurement and stores. Smart contracts can greatly streamline procurement and inventory processes in the railway system. By embedding purchase order terms directly into the contract, payments can be automatically triggered upon fulfilment of specific conditions, such as delivery confirmation, ensuring timely and error-free transactions. For inventory management, smart contracts integrated with IoT sensors allow real-time tracking of stock levels. When inventory falls below predefined thresholds, automated reordering can be initiated, minimizing shortages and delays. Additionally, regulatory and compliance requirements can be programmed into the contract itself, ensuring consistent adherence to policies.

The transparent and immutable transaction history maintained on the blockchain also simplifies audits and enhances accountability.

Smart contracts, though relatively new in the Indian government system, have seen global adoption across various governance functions. Estonia's e-Residency program uses blockchain and smart contracts to offer secure digital identities to non-residents, allowing them to access services like business registration and banking remotely. In Colombia, the government collaborated with the Inter-American Development Bank to trial blockchain-based procurement, using smart contracts to automate tenders and enhance transparency in public works. Chile's "ChileCompra" platform also integrated smart contracts to enforce timelines and delivery standards in public tenders. Dubai's Roads and Transport Authority leveraged blockchain to manage vehicle lifecycle and maintenance, enabling real-time service tracking and milestone-based payments–similar to Indian Railways' asset management. Additionally, several EU-funded Horizon 2020 projects are experimenting with smart contracts in infrastructure development to streamline compliance checks, enhance vendor accountability, and automate fund disbursement. These global examples highlight the transformative potential of smart contracts in public administration.

Implementing smart contracts in Indian Railways' tendering process presents several challenges that must be carefully addressed. One of the primary concerns is legal recognition, as the current regulatory framework, including the Indian Contract Act, needs to evolve to fully accommodate and enforce smart contracts. Additionally, technical expertise is crucial, as developing and managing these contracts requires skilled professionals and collaboration with blockchain developers. Integration with existing procurement platforms may also necessitate significant system modifications. Furthermore, digital infrastructure across all railway zones must be upgraded to ensure smooth adoption. Cybersecurity and data protection are critical considerations, given the sensitive nature of procurement data. Lastly, there is a need for capacity-building initiatives to train officials and personnel involved in the tendering process, ensuring they are well-equipped to manage this technological shift effectively. Addressing these challenges holistically is essential for the successful implementation of smart contracts in Indian Railways.

The question arises that how should we move ahead? To successfully adopt smart contracts in its tendering process, Indian Railways can begin with pilot projects focused on the procurement of standard goods such as spare parts and tools, EPC contracts for smaller infrastructure works, and maintenance contracts that include performance-linked clauses. These initial projects should be integrated with existing e-procurement platforms to ensure continuity and ease of transition. Additionally, capacity-building initiatives, including training programs for officials, will be essential to familiarize them with blockchain technology and smart contract functionalities. Collaboration with blockchain experts and technology vendors will further support effective implementation and help address technical and operational challenges during the pilot phase.

The time has come for the integration of smart contracts in railway tenders which has the potential to be a transformative step towards greater efficiency, transparency, and accountability. By automating contract execution, ensuring real-time compliance, and minimizing human intervention, smart contracts can significantly reduce delays, cost overruns, and procedural discrepancies that often plague traditional tendering systems. For a vast and complex organization like Indian Railways, this digital shift can streamline procurement, improve vendor management, and enhance trust among stakeholders. As global examples demonstrate the feasibility and benefits of such technologies, Indian Railways stands at the cusp of a digital revolution–where smart contracts could truly become a gamechanger in public procurement and infrastructure development.

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FROM PDF TO PIVOT: 5 OFFICE TOOLS TO LEVEL UP YOUR FINANCIAL WORKFLOW

- BY SARAN KUMAR.U, CHARTERED ACCOUNTANT



The article introduces five built-in Office tools that can enhance speed, clarity, and professionalism in financial reporting and analysis. These tools allow finance teams to produce smarter documents, quicker insights, and more effective communication by extracting, organizing, analyzing, and presenting data more effectively without relying on third-party software.

Introduction

Every month, finance teams handle reports, trackers, reconciliations, and audit schedules that live or die by formatting, filtering, and time-efficiency. And while most professionals only scratch the surface of Office tools, a deeper layer of features can simplify document handling, amplify Excel's analytical power, and make your reports sharper and faster to produce. This month's picks include PDF-to-Excel table conversion, smart visuals, and Word tables that do more than just hold data.

1. Converting PDF Tables into Excel via Word

Objective:
Extract tabular data from a PDF and convert it cleanly into Excel - without using paid software or online tools. This method uses Ms Word as a conversion bridge, giving you editable tables that can be pasted directly into Excel.

Navigation:

- This step converts the PDF into Word:
  Open Word Document ➜ File Tab ➜ Open ➜ Select the PDF
- This step covert Word tables into Excel
  Copy table from Word ➜ Paste in Excel (Use Paste Special, if needed)

Practical case study

A vendor sends a scanned financial statement in PDF. Instead of retyping manually, you open it in Word, copy the table either Balance Sheet or Profit and Loss account, paste into Excel, clean formatting, and the final sheet is ready in in less than a minute. Even works for Bank Statement PDFs, Internal Schedule Copies etc.

2. Slicer Option in Pivot Table of Excel

Objective:
Slicers allow you to filter Pivot Tables visually using clickable buttons. It replaces cumbersome dropdown filters and gives you interactive dashboards within seconds.

Navigation:
Click inside Pivot Table ➜ PivotTable Analyze ▶ Filter ▶ Insert Slicer.

Steps:

- Insert a Pivot Table on your dataset in Excel
- Click inside the Pivot Table.
- Go to PivotTable Analyze ▶ Insert Slicer.
- Choose the field(s) you want to filter by (e.g., Region, Quarter).
- Click buttons on the slicer to filter instantly.

Practical case study:

You've created a sales summary Pivot for 12 zones. Instead of manually filtering "East", "West", "South", etc., you add a Slicer for "Zone". Now your CFO can click each zone button during review calls and the summary updates live - no need to touch the filter menu or rebuild views.

3. Using Table Functions in Word Document

Objective:
Tables in Word can do more than a layout - when formatted correctly, they support sorting, formulas (like SUM, AVERAGE), and even quick data arrangement for small statements or checklists.

Navigation:
Select a table ➜ Layout ▶ Formula or Layout ▶ Sort.

Steps:

- Insert or select an existing table in Word
- To add a total, click inside the last cell ➜ Table Layout Group ▶ Data Group ▶ Formula
- Use built-in functions like =SUM(ABOVE) or =AVERAGE(LEFT).
- For sorting, select the table ➜ Table Layout ▶ Sort, pick column, and order.

Practical case study:

You're drafting a brief annexure in Word with a 5-row cost table: Rent, Electricity, Admin, Travel, Misc. Instead of exporting to Excel, you add totals right inside Word with =SUM(ABOVE) and sort by descending cost. Useful for internal notes or draft policy documents without switching tools.

4. Sparklines Feature in Excel

Objective:
Sparklines provide tiny, in-cell charts that summarize trends row-wise, perfect for time-series data like monthly revenue, expenses, or stock movements.

Navigation:
Insert ▶ Sparklines ▶ Line/Column/Win-Loss.

Steps:

- Select an empty cell next to your data row
- Go to Insert ▶ Sparklines
- Choose Line (or Column/Win-Loss), select data range, and location
- Format sparkline with color, markers, high/low points

Practical case study:

You're comparing 6 months of collections across 15 branches. With a Sparkline next to each row, you instantly see trends - flat, rising, or erratic. During review meetings, these tiny visuals help leadership grasp patterns briefly without diving into charts.

5. Grouping and Ungrouping in Periodical Columns in Excel

Objective:
Collapse or expand monthly/quarterly columns in Excel to keep sheets clean and allow detailed drill-down only when needed. Ideal for MIS, financial modelling, and budget tracking.

Navigation:
Select columns ➜ Data ▶ Outline ▶ Group

Steps:

- Select the time-based columns (e.g., Jan to Dec)
- Go to Data ▶ Group
- A minus (-) sign appears to collapse the section
- Click the plus (+) sign to expand when needed
- To ungroup, use Data ▶ Ungroup

Practical case study:

Your P&L template has monthly columns from Jan to Dec across 3 years. To make the file board-ready, you group each year and keep only totals visible. When someone wants Q2 of FY23, you expand just that group–professional presentation with full detail one click away.

Conclusion:

This month's set of tools proves again that productivity isn't always about learning new software - it's about unlocking what you already have. Whether you're converting PDFs with precision, visualizing cash trends through Sparklines, or building interactivity into your MIS, these features can save hours and impress stakeholders in equal measure. In the finance world, clarity + speed = credibility and these tools deliver both.

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Give wings to your dreams and let them come true in 2025

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