

An Analysis of Profitability and Liquidity Positions of Indian Private Sector Power Generation Companies

Namrata Gera^{1*} | L.C. Panjabi²

¹Research Scholar, Career Point University, Kota, Rajasthan, India.

²Research Guide, Career Point University Kota, Rajasthan, India.

*Corresponding Author: namrata.gera97@gmail.com

ABSTRACT

This study analyzes the financial performance of India's three largest private power producers—Tata Power, Adani Power, and Reliance Power—over the five-year period from 2020 to 2024. It focuses on key profitability ratios (Net Profit, Return on Equity) and liquidity ratios (Quick Ratio, Current Ratio) to assess each company's financial health and performance trends. The analysis reveals that Adani Power leads in financial performance, showing strong revenue growth, rising net profits, reduced fuel costs, and increased power demand. Tata Power posted record profits, revenue, and EBITDA in FY 2023–24, though its liquidity ratios (below 1) indicate potential challenges in meeting short-term obligations, pointing to a need for improved asset-liability management. Reliance Power, while historically affected by high financing and operational costs, demonstrated signs of recovery and financial improvement in FY 2023–24. Among the three, Adani Power emerges as the most financially stable, with consistent growth and strong liquidity. Tata Power maintains moderate profitability but needs to strengthen liquidity, and Reliance Power, despite past losses, shows potential for turnaround with strategic financial restructuring. This study offers valuable insights for investors, policymakers, and stakeholders, aiming to evaluate the financial viability of major private power producers in India based on their profitability and liquidity performance.

Keywords: Profitability Ratios, Liquidity Ratios, Financial Growth, Net Profit.

Introduction

The electricity sector in India plays a crucial role in the nation's socio-economic advancement, serving as the foundation of its industrial and domestic infrastructure. Profit is essential to the survival and growth of every commercial enterprise, whether it is big or small. A thorough understanding of a company's financial performance is essential for stakeholders, investors, and business enthusiasts as every stakeholder in a company organization is greatly impacted by its financial success.

According to Ministry of Power, in FY 2024–2025, India was able to meet its all-time highest power demand, which was 250 GW and India's per capita power consumption increased by 45.8% (438 kWh) from 957 kWh in 2013–14 to 1,395 kWh in 2023–24. As of November 30, 2024, India's total installed power production capacity stood at 457 gigawatts (GW), up from 249 GW in 2014. The year 2024 marked as a milestone period for India's power sector, with historical advancements in power production, transmission, and distribution.

India is now the world's third-largest user of power due to its rising economy and population. The past 10 years have seen a steady increase in India's power generation capacity due to increased demand, regulatory assistance, and technical breakthroughs. 9,943 MW of additional capacity was installed in 2023–2024 alone, with 8,269 MW originating from non-fossil fuel sources, underscoring the nation's shift to sustainable energy. This highlights the critical need for ongoing investment and innovation in power infrastructure to guarantee that everyone has access to affordable and dependable electricity.

In 2024, the country additionally made great progress in terms of wind and solar energy installations, regulatory changes, and infrastructure upgrades, setting the groundwork for ambitious goals in 2025. India's renewable energy sector has experienced record-breaking growth as the country speeds up its shift to a sustainable future. In comparison to 2023, solar installations more than doubled, while wind installations increased by 21%, with a record-breaking 24.5 GW of solar capacity and 3.4 GW of wind capacity installed in 2024. With 47% of all installed renewable energy capacity, solar energy continued to be the main driver of India's growth in renewable energy. India is becoming a global leader in renewable energy with a goal of 500 GW of non-fossil fuel-based electricity capacity by 2030.

Company Profile

Tata Power Company Limited, established in 1919, is the largest integrated private sector power company in India. With a 14,707 MW capacity that includes 5847 MW of thermal energy, hydroelectric electricity, and renewable energy sources, the firm has a strong transmission network and distributes power in regions such as Delhi and Mumbai. With record-breaking revenues of ₹61,542 crore and a profit after tax of ₹4,280 crore in FY24, Tata Power demonstrated strong financial standing and successful management techniques. Tata Power continues to dominate the rooftop solar business and launched the first utility-scale solar projects in India. With a focus on renewable projects, the firm has started projects including smart energy-saving programs, solar rooftop solutions, and electric vehicle charging stations. With the goal of obtaining 40-50% of its total generation capacity from renewable sources in upcoming years, Tata Power is additionally concentrating on extending its renewable energy portfolio. With large expenditures known as the "green energy push", the corporation hopes to reach more than 20 GW of renewable capacity by 2025. In addition to making a substantial contribution to India's energy landscape, Tata Power Company Limited is a leader in innovation and sustainability. Through its accomplishments, the country has demonstrated a strong commitment to fulfilling its changing energy demands while putting community well-being and environmental responsibility first.

Adani Power Limited, established in 1996, is the most prominent private thermal power generator in India and a division of the Adani Group, founded in 1988. With its headquarters located in Ahmedabad, Gujarat, Adani Power Ltd. operates thermal power plants across Gujarat, Maharashtra, Rajasthan, Madhya Pradesh, Karnataka, Chhattisgarh, and Jharkhand, with a combined power output capacity of 15,250 MW. On November 28, 2024, Adani Power Ltd. stated that it received an excellent score of 67 out of 100 in the Corporate Sustainability Assessment (CSA) for fiscal year 2023-24 from global rating agency S&P Global. In Gujarat, the corporation also owns a 40 MW solar power project. Being the first company in the world to establish a coal-based supercritical thermal power facility registered under the Kyoto Protocol's Clean Development Mechanism (CDM), Adani Power Ltd. is admired all over the world for its innovations. The company's overall revenues for FY24 were Rs 50,960 Crore, up 37% from FY23's Rs 37,268 Crore. Additionally, Adani Power's ongoing EBITDA more than doubled, from ₹8,540 crore in FY23 to ₹18,789 crore, demonstrating strong operational performance and efficiency gains. Adani Power is dedicated to increasing its capacity further to meet future energy demands, with plans to add an additional 1,600 MW by examining further inorganic acquisition options and concentrating on energy sustainability goals and technical developments.

Reliance Power Limited, also known as R-Power, established in 1995, is one of India's leading energy companies, specializing in electricity generation and related infrastructure. A wide range of power production projects from various energy sources, such as coal, gas, and renewable energy, are included in Reliance Power's portfolio. With a total revenue of INR 8,257 crore and a profit after tax of INR 2,947 crore during FY23–24, Reliance Power showed excellent operational efficiency and demonstrated sound cost control and high profit margins. The company's activities generated steady cash flow, as seen by its EBITDA, which was INR 590 crore. R-Power now operates a portfolio of about 5,945 MW, and it is engaged in 13 significant power projects with a combined projected capacity of 33,480 MW. To further improve its capacity to produce electricity, Reliance Power also owns and runs significant coal mining facilities. In order to meet India's increasing demand for electricity, Reliance Power continues to strategically prioritize renewable energy projects and increasing operational effectiveness. Despite commercial and operational obstacles, Reliance Power Limited is a significant participant in India's power industry, prioritizing sustainability and a variety of energy sources.

Research Methodology

- **Research Type:** Analytical Study
- **Objective:** To study the present financial and profitability positions of India's leading private-sector power production enterprises.
- **Data Collection:** from the financial reports of the leading private sector power generation companies from year 2020 to 2024 i.e. Tata Power Company Limited, Adani Power Limited, and Reliance Power Limited.

Data Analysis

Table 1: Quick Ratio

Company Name	2020	2021	2022	2023	2024
Tata Power	0.798	0.775	0.691	0.785	0.771
Adani Power	0.622	0.831	0.736	0.929	1.36
Reliance Power	0.241	0.304	0.289	0.223	0.212

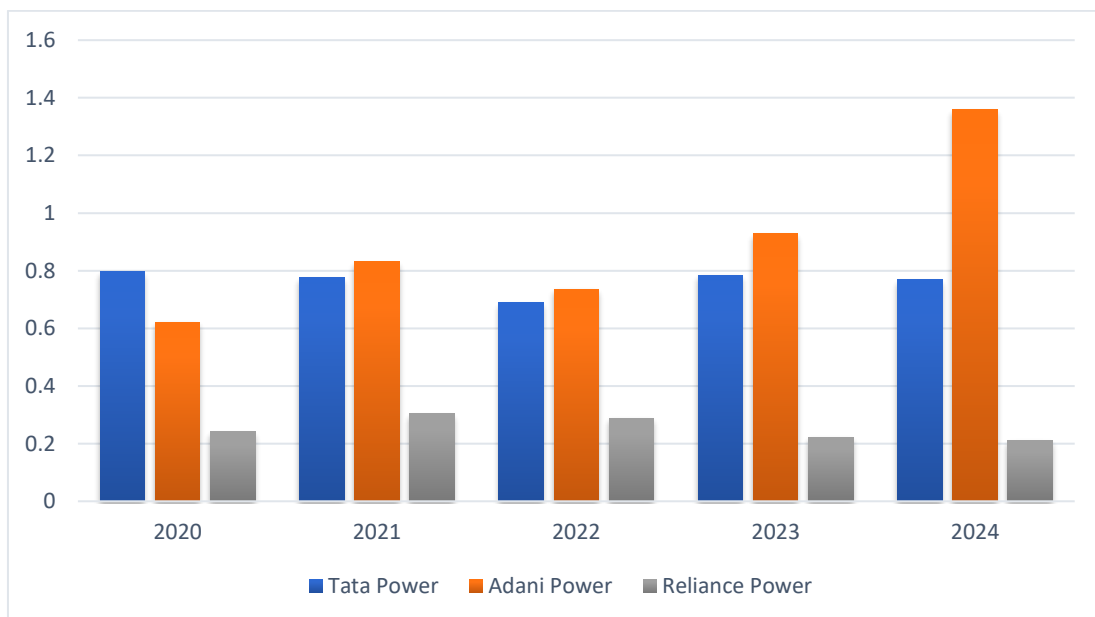


Figure 1: Quick Ratio

Significant performance patterns can be observed when comparing the Quick Ratio of Tata Power, Adani Power, and Reliance Power over the five-year period from 2020 to 2024, as follows:

- **Tata Power** has maintained a very consistent performance, however significantly lower overall, ranging between 0.691 and 0.798. Although the growth trend indicates an uncertain direction, quick ratio levels below 1 indicate that the corporation may still have difficulties using quick assets to cover its present liabilities.
- **Adani Power** has shown a significant improvement in its liquidity over these years. With the quick ratio rising from 0.62 in FY19–20 to 1.36 in FY23–24, the business appears to be in a far better position to fulfill its short-term financial obligations. This tendency might be important in determining the company's operational efficiency and financial health over these fiscal years.
- **Reliance Power's** values have consistently declined, falling from 0.241 in 2020 to 0.212 in 2024, suggesting poor performance and perhaps deeper issues that must be addressed.

Overall, **Adani Power** appears as the better-performing firm, with excellent development prospects. **Tata Power** has shown fluctuating performance with moderate growth, requiring caution and possible strategic action. On the other hand, **Reliance Power** may require strategic realignment to reverse their downward trajectory.

Table 2: Current Ratio

Company Name	2020	2021	2022	2023	2024
Tata Power	0.861	0.836	0.799	0.872	0.876
Adani Power	0.802	0.941	0.947	1.10	1.62
Reliance Power	0.304	0.359	0.337	0.273	0.265

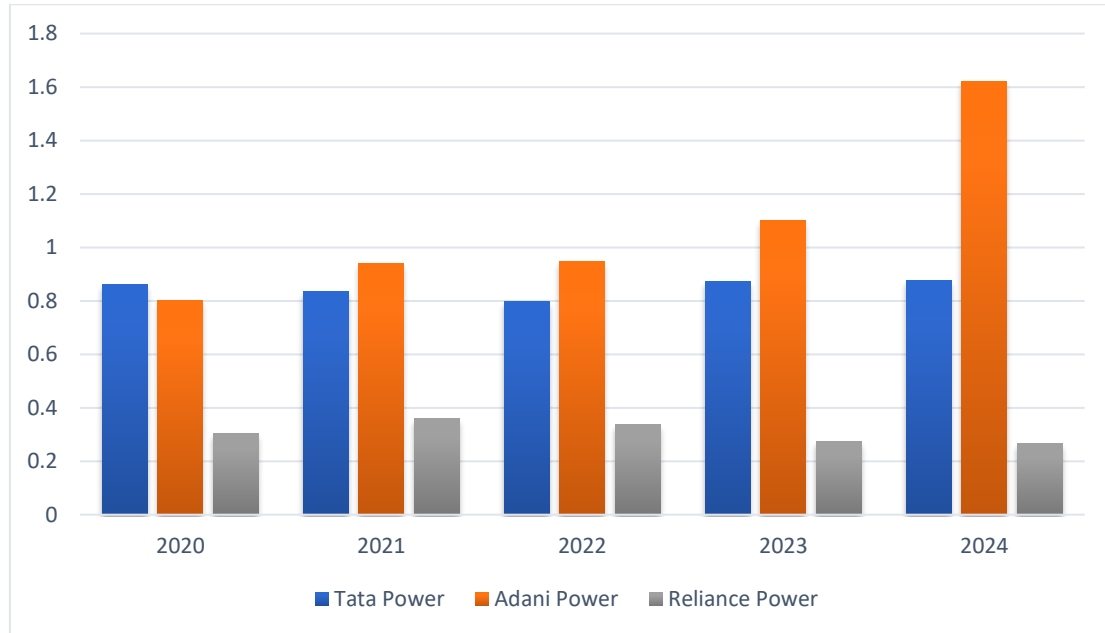


Figure 2: Current Ratio

From 2020 to 2024, Tata Power, Adani Power, and Reliance Power's five-year data indicate the following trends:

- **Tata Power** has maintained a very steady liquidity position over the years, as seen by the constant ratio values from FY 2019–20 to FY 2023–24. A reasonably constant liquidity profile with small improvements was shown by Tata Power's current ratio, which increased slightly from FY 2019–20 to FY 2023–24 throughout the reporting years. Since a ratio greater than one is usually seen as healthy, Tata Power's most recent ratios highlight areas of potential concern.
- **Adani Power** has shown significant growth in its capacity to meet its short-term liabilities, which is encouraging for stakeholders and possible investors. The current ratio's rising trend from FY2019–20 to FY2022-23 indicates that Adani Power's liquidity situation is becoming stronger.
- **Reliance Power's** current ratio has fluctuated over the years. R-Power gradually but steadily declines from 0.304 in 2020 to 0.265 in 2024. Even though the decline is not very sharp, the downward trend indicates poor performance, which may be the result of operational or financial difficulties.

In conclusion, **Tata Power** demonstrates stability but lacks momentum, **Reliance Power** is on a downward trajectory that needs strategic intervention, and **Adani Power** shows indications of recovery and possible future development. While **Tata Power** and **Reliance Power** could require concentrated efforts to improve performance, stakeholders might see **Adani Power** as a firm with increasing prospects.

Table 3: Return on Equity

Company Name	2020	2021	2022	2023	2024
Tata Power	5.63	5.41	7.76	11.59	11.42
Adani Power	-35.10	216.75	87.04	64.68	48.28
Reliance Power	-34.35	1.87	-4.86	-4.06	-17.81

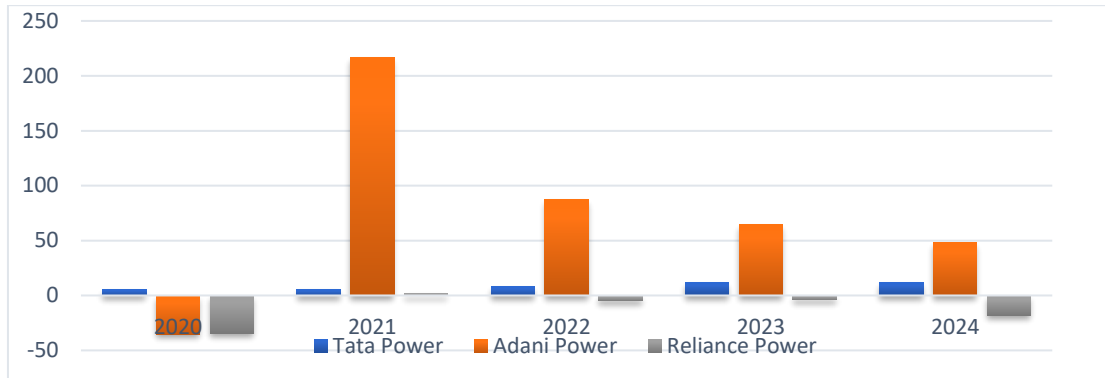


Figure 3: Return On Equity

The ROE statistics for Tata Power, Adani Power, and Reliance Power from 2020 to 2024 reveal varying performance trends among the three companies:

- **Tata Power** has grown consistently throughout the last five years, from 5.63 in 2020 to 11.42 in 2024. This increasing trend could be a sign of improved operational performance, profitability, or efficiency and represents an ongoing development.
- **Adani Power's** return on equity trend demonstrates high volatility, with an early loss followed by an amazing recovery and a gradual leveling in succeeding years. The above pattern indicates a quickly changing and possibly tough business climate, demanding constant monitoring of future performance, especially because it appears to have stabilized at a significantly lower ROE in the most recent fiscal year compared to previous highs.
- **Reliance Power's** values have consistently declined, suggesting very poor performance and possibly underlying issues that must be addressed. These variations in ROE show the difficulties and shifts in Reliance Power's performance during its specified fiscal years.

In summary, **Tata Power** shows consistent and positive development, while **Adani Power** shows exceptional growth and momentum. However, **Reliance Power** has a significant reduction that requires a strategy review to stay competitive.

Table 4: Net Profit of the Companies (in Crores INR)

Company Name	2020	2021	2022	2023	2024
Tata Power	1,316	1,439	2,156	3,810	4,280
Adani Power	-2,274.77	1,270	4,912	10,727	20,829
Reliance Power	-4076.59	453.94	-556.53	-402.89	-2,068

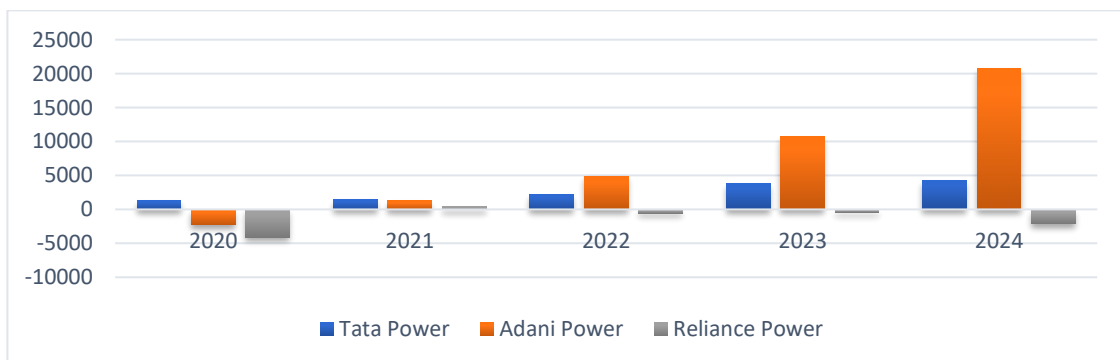


Figure 4: Net Profit of the Companies

Tata Power, Adani Power, and Reliance Power's five-year data from 2020 to 2024 (probably stated in crores or another big unit) shows significant variations in scale, performance, and growth patterns:

- **Tata Power's** net earnings have grown consistently over the last five fiscal years, with particularly remarkable increases in FY2022 and FY2023, where profits increased significantly compared to FY2020 and FY2021. The stated net profit for FY2024 of INR 4,280 crore indicates a 12% increase over FY2023. This amount of profit has been attributed to the company's robust success in its key sectors, particularly in integrated activities and renewable energy.
- **Adani Power** has recovered with rising net profits in the following fiscal years after suffering a loss in FY2020. The jump from ₹1270 crore in FY2021 to over ₹20,000 crore in FY2024 suggests strong growth and efficient operations over these years. This growth can be assigned to higher power demand and better operational effectiveness.
- **Reliance Power** has demonstrated its financial difficulties in recent fiscal years. Reliance Power has seen significant net losses throughout the years, ranging from ₹4076.59 crore in FY2020 to ₹2068 crore in FY2024. Despite large fluctuations in losses between FY2020 and FY2024, the general trend suggested a shift toward lower operating losses and efforts to sustain the firm in the face of difficult market conditions.

As a result, **Adani Power** and **Tata Power** stand out as the obvious leaders, with robust, continuous growth and large-scale operations. On the other hand, **Reliance Power** demonstrates uncertainty, a trend toward decline, and ongoing losses, underlining the necessity of a focused turnaround strategy.

Conclusion

This study compares the financial performance of Tata Power, Adani Power, and Reliance Power over the five-year period from 2020 to 2024 using key indicators such as the Quick Ratio, Current Ratio, Return on Equity (ROE), and Net Profit. These metrics are crucial for evaluating each company's liquidity, profitability, and overall financial health.

Starting with the **Quick Ratio**, Adani Power shows the most remarkable progress among the three companies. Its ratio improved steadily from 0.622 in 2020 to 1.36 in 2024, indicating strong liquidity and an enhanced ability to meet short-term obligations. Tata Power, on the other hand, has maintained a stable but suboptimal quick ratio, ranging between 0.691 and 0.798. Though this reflects management consistency, values below 1 suggest difficulty in covering current liabilities with quick assets. Reliance Power's performance in this area is concerning, with a continuous decline from 0.241 in 2020 to 0.212 in 2024. This trend signals severe liquidity issues that may hinder operational sustainability.

In terms of the **Current Ratio**, Adani Power again stands out, improving from 0.802 in 2020 to 1.62 in 2024. Crossing the ideal benchmark of 1.0 from 2023 onwards, Adani demonstrates strong short-term financial health and effective asset-liability management. Tata Power remains steady, with ratios hovering between 0.799 and 0.876, indicating a consistent yet insufficient liquidity position. Reliance Power continues its weak liquidity performance with ratios declining slightly year-over-year, from 0.304 in 2020 to 0.265 in 2024, further pointing to ongoing operational and financial stress.

When analyzing **Return on Equity (ROE)**, Tata Power showcases consistent and positive growth from 5.63% in 2020 to 11.42% in 2024. This steady upward trend reflects improved efficiency in generating shareholder returns. Adani Power's ROE, though highly volatile, reveals impressive spikes—from a steep loss of -35.10% in 2020 to a staggering 216.75% in 2021, and then gradually declining to 48.28% in 2024. While still strong, this volatility indicates exposure to market and operational risks. Reliance Power, in contrast, posted negative ROE throughout the period, ending at -17.81% in 2024. These figures reflect ongoing challenges in creating value for shareholders and the company's underlying structural problems.

The **Net Profit** figures further reinforce the comparative standing of these companies. Adani Power exhibits an exceptional turnaround, transforming a loss of ₹2,274 crore in 2020 into a profit of ₹20,829 crore by 2024. This performance underscores the company's operational excellence and market strength. Tata Power has shown steady and consistent profit growth, rising from ₹1,316 crore in 2020 to ₹4,280 crore in 2024. Its performance highlights strong fundamentals, particularly in the renewable energy and integrated operations segments. Conversely, Reliance Power has continued to suffer, reporting persistent losses across the five years, from ₹4,076 crore in 2020 to ₹2,068 crore in 2024. Although the scale of losses slightly decreased, the trend reflects unresolved financial difficulties.

In summary, **Adani Power** leads across most financial indicators, demonstrating strong growth, improving liquidity, and excellent profitability, making it an attractive option for investors. **Tata Power**

presents as a stable performer with steady growth in profit and equity returns, but it requires improvements in liquidity management to support future expansion. **Reliance Power**, however, is on a declining trajectory, with significant liquidity issues, negative shareholder returns, and continuous net losses, signaling the urgent need for strategic restructuring and operational realignment.

Therefore, Tata Power exhibits moderate and steady progress with increasing profits, and Adani Power demonstrates robust financial health and consistent growth, while Reliance Power's financial losses from 2020 to 2024 reflect a turbulent period of restructuring and financial challenge that requires volatility in earnings to improve overall performance.

References

1. Kumar, A. (2000). Working Capital Management of Munjal Shows Ltd; in M. Com Dissertation. Submitted to University of Rajasthan, Jaipur.
2. Joshi, V.C. and Joshi, V.V. (2002). Managing Indian Banks: The Challenges Ahead. 2nd edition, Response Books, a Division of Sage Publications-New Delhi, 109-110.
3. Gitman, Lawrence J. (2012). Principal of Managerial Finance. Harlow, Essex: Pearson Education Limited.
4. Kaur, k. (2013). International Journal of Research in Business Management. IMPACT Journals, ISSN(E): 2321-886X; ISSN(P): 23474572, Vol. 2, Issue 5, 31-46.
5. Pandey, I.M. (2015). Financial Management, 11th Edition. Vikas Publishing House Pvt Limited.
6. Jeyalakshmi, P., Ravichandran, N. (2016). An analytical study on financial positions of selected telecom service sectors in India. International Journal of Multidisciplinary Research and Development, Volume 3; Issue 9.
7. Brooks, C. (2019). Introductory Econometrics for Finance. Illustrated, revised. Cambridge University Press, New York.
8. Kantharia, N.J. (2020). Profitability analysis of Selected Power Generating Firms in India. IJRAR, Volume 7, Issue 1.
9. Kumar, M., Shah, B. (2023). Unveiling Success Metrics: A Financial Performance Evaluation of India's Leading Power Enterprises. IJRAR, Volume 10, Issue 3.
10. Chandra, R. (2019). Financial performance indicators for power companies. Journal of Energy Finance, 5(2), 55-70.
11. Chattopadhyay, S. (2001). Financial liquidity and solvency in power distribution companies. Indian Journal of Finance and Economics, 13(1), 22-28.
12. CRISIL. (2010). Financial performance of the Punjab power sector. CRISIL Reports, 15(4), 102-115.
13. CUTS International. (2010). Electricity pricing and subsidy distortions. CUTS Research Paper, 30(2), 34-47.
14. Garcia, E., Petrova, M., & Müller, P. (2022). Environmental sustainability and financial performance of European power companies. Journal of Sustainable Energy, 8(3), 210-225.
15. Khurana, S., & Banerjee, S. (2015). Financial crisis and the Indian power sector. Economic and Political Weekly, 50(3), 43-52.
16. Misra, P. (2017). Financial performance of NTPC: An empirical analysis. Indian Journal of Power and Energy, 10(1), 50-62.
17. Ranganathan, S. (2005). The impact of T&D losses on the financial performance of power companies. Journal of Energy Management, 12(3), 101-112.
18. Sharma, L., Layak, P., & Baiju, P. (2018). The effects of overcapacity in the Indian power sector. Asian Energy Journal, 5(2), 77-89.
19. Tomczak, J. (2019). Financial positions of companies generating electricity from renewable and fossil fuels. Renewable Energy Finance Journal, 7(1), 14-26.

Websites

20. <https://energy.rajasthan.gov.in/>
21. www.adanipower.com
22. www.Tatapower.com
23. www.reliancepower.co.in
24. <https://powermin.gov.in/>

