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Research Article



Exposing financial shenanigans: The role of Indian accounting standards (Ind AS) in enhancing corporate accountability and governance

Sunil Kumar @

Faculty of Management & Commerce, ICFAI University Tripura, Tripura, India

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$A\ B\ S\ T\ R\ A\ C\ T$

The Indian Accounting Standards (Ind AS) play a pivotal role in reducing financial impropriety. These standards significantly enhance the accountability, accuracy, and transparency of financial reporting, thereby serving an essential function in deterring financial malfeasance. Such malfeasance includes deceptive accounting practices, misleading reporting, and the distortion of earnings, all of which undermine investor confidence, disrupt market integrity, and adversely affect the economy. The Ind AS, aligned with the International Financial Reporting Standards (IFRS), provide a comprehensive and robust framework that substantially improves the quality of financial reporting. The article outlines the significant benefits of Ind AS for financial reporting, such as increased transparency and accuracy. It presents case studies illustrating how the application of the standard has effectively addressed and mitigated financial discrepancies. Furthermore, the article examines the challenges organisations face in adopting Ind AS, including the complexities of transitioning from previous accounting standards and the need for extensive system reforms and personnel training. By elucidating these challenges, the article offers a thorough analysis of the effectiveness of Ind AS in addressing financial malpractice. It emphasises its role in fostering a more transparent and responsible financial reporting environment.

1. Introduction

Financial shenanigans—practices designed to manipulate financial statements and present a distorted view of a company's performance—pose significant risks to stakeholders and undermine the overall integrity of financial markets [1,2]. In response to the rising incidence of corporate fraud and the demand for greater transparency, the Indian Accounting Standards (Ind AS) were introduced to ensure consistency, accuracy, and fairness in financial reporting. Based on the International Financial Reporting Standards (IFRS), Ind AS aims to establish uniformity across sectors and provide investors with a clear and truthful representation of companies' financial health [3].

Ind AS plays a pivotal role in curbing financial shenanigans by enforcing stringent disclosure norms, promoting fair value measurement, and requiring detailed transaction reporting. Through standards like Ind AS 1 (Presentation of Financial Statements), Ind AS 109 (Financial Instruments), and Ind AS 115 (Revenue from Contracts with Customers), Indian firms are obligated to present their financial statements in a manner that reduces the scope for manipulation, fraudulent revenue recognition, and asset misrepresentation [4,5]

By mandating transparent financial disclosures and reinforcing corporate governance, Ind AS has become a vital tool for auditors, regulators, and investors to identify and prevent financial irregularities. This system improves financial discipline within companies and fosters trust in the Indian capital markets [6].

1.1. Literature review

Financial shenanigans, the gimmicks used to misrepresent financial statements through questionable accounting practices, continue to pose a significant global challenge to investors and regulators [7]. However, developing more stringent financial reporting standards does not seem to have effectively curbed these unethical practices, which persist worldwide [8]. The search for potential factors that may lead companies to engage in such unethical behaviour has been a primary motivation behind recent research in this domain.

This literature review examines the existing body of research on accounting fraud, with a focus on the role of Indian Accounting Standards in addressing this issue [9]. The findings highlight the importance of responsible corporate governance, sound accounting practices, and

Peer review under the responsibility of The International Open Benchmark Council. *E-mail address*: sunilkumar@iutripura.edu.in.

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the psychological characteristics of managers and employees as critical factors influencing the prevalence of unethical behaviour. These psychological characteristics may include greed, pressure to meet financial targets, and the fear of job loss [8].

Companies have long employed various deceptive accounting practices, collectively known as "financial shenanigans," to misrepresent their trustworthy financial standing and mislead stakeholders [7]. Despite the development of more demanding financial reporting standards, the problem of accounting fraud persists worldwide, suggesting that the existing measures may not effectively address this issue [8]. To enhance transparency and accountability in the financial reporting practices of Indian companies, the government has introduced the Indian Accounting Standards, which closely align with the International Financial Reporting Standards adopted globally [7,8,10]. This literature review aims to synthesise the current scholarly understanding of the role and effectiveness of these standards in mitigating the prevalence of financial shenanigans in the Indian corporate sector. The body of academic research has consistently demonstrated the far-reaching implications of accounting fraud, which can undermine the confidence of individual investors and creditors and jeopardise the overall stability and growth of the economy [7,8]. Scholars have emphasised the need for a multifaceted approach to address this challenge, one that combines strengthened regulatory oversight, the implementation of robust corporate governance practices, and the cultivation of enhanced ethical awareness and integrity among financial professionals

The Indian Accounting Standards (Ind-AS) play a pivotal role in preventing financial fraud by enhancing the quality and reliability of financial reporting. This fosters transparency and accountability among businesses, reassuring stakeholders and the public. The transition from Generally Accepted Accounting Principles (GAAP) to International Financial Reporting Standards (IFRS) aimed to align Indian practices with global standards, which is essential for attracting foreign investment and ensuring comparability in financial statements [11]. By mandating rigorous disclosure requirements and measurement criteria, Ind-AS compels companies to adopt robust internal controls and governance structures, which are vital in mitigating fraud risks [11]. The involvement of auditors and forensic accountants in the financial reporting process is critical, as they utilise these standards to detect and prevent fraudulent activities through comprehensive audits and investigations [12,13-14]. Overall, the implementation of Ind-AS not only enhances financial integrity but also empowers stakeholders to identify and address potential fraud effectively.

The literature strongly suggests that the social cost of accounting fraud should be minimised. Governments and companies must urgently develop policies combining responsible corporate governance with environmental sustainability. This is not just a financial issue but a societal one, requiring immediate attention and action.

This discussion is crucially concerned with the role of Indian Accounting Standards in curbing financial shenanigans. These standards ensure transparent and accurate financial reporting, reducing the scope for manipulation and misrepresentation [1].

1.2. Research objectives

- Assess how Ind AS, with its potential to enhance the accuracy, transparency, and reliability of financial reports, can significantly reduce financial misreporting and foster a more transparent and reliable financial landscape.
- Explore how the adoption of Ind AS can revolutionise corporate governance by enforcing stricter disclosure norms and accountability, and enhancing transparency and ethical behaviour.
- Conduct a thorough analysis of the practical challenges businesses may face during the implementation of Ind AS, including system overhauls and employee training, to provide a realistic view of the process.

- 4. Investigate how the adoption of Ind AS enhances investor protection by promoting transparency and ethical corporate behaviour.
- 5. Evaluate case studies of companies adopting Ind AS to reduce financial shenanigans and fraudulent reporting.

1.3. Research hypotheses

- The adoption of Ind AS significantly reduces financial shenanigans by enhancing financial reporting accuracy, transparency, and accountability (H1).
- 2. There is no significant relationship between the adoption of Ind AS and the reduction of financial malfeasance in financial reporting (H0).
- 3. Ind AS improves corporate governance and investor protection by enforcing stricter disclosure norms and ethical behaviour (H2).
- 4. Challenges in adopting Ind AS, such as system changes and employee training, negatively impact its implementation effectiveness (H3).
- 5. Companies that successfully implement Ind AS experience fewer financial anomalies than those that do not (H4).

1.4. Research methodology

This study employs a strong mixed-methods research design that integrates quantitative analysis with qualitative case-based examination, centring on the impacts of Indian Accounting Standards (Ind AS) on financial transparency, misreporting risks, the pandemic, and corporate governance practices [15]. The quantitative component employs a longitudinal framework based on panel data, utilising descriptive statistics, independent sample t-tests, and multinomial logistic regression, along with model fit diagnostics to ensure both statistical robustness and empirical validity [16].

This study explores the financial performance of companies before and after implementing Ind AS, assesses cases of possible financial misreporting, analyses the evolution of corporate governance structures, and considers the external impacts of the COVID-19 pandemic using dummy variables [17].

1.5. Data analysis techniques

A wide range of both quantitative and qualitative methods was employed to assess the impact of implementing Ind AS on financial reporting practices in India [18]. The quantitative analysis includes descriptive statistics, inferential tests using t-tests, and predictive modelling with multinomial logistic regression. To ensure the validity, reliability, and explanatory strength of the models, diagnostics such as goodness-of-fit measures were applied [19,20].

To assess financial transparency, risk exposure, and resilience, a detailed examination of key financial ratios was conducted across preand post-Ind AS, Suspected Fraud, Covid-19 pandemic, and the Emergence of corporate governance as dependent dummy variables in implementation periods to identify shifts in performance metrics and reporting accuracy [21].

A comparative longitudinal analysis was also conducted to examine the changes in financial disclosure practices and governance frameworks resulting from the adoption of specific Indian Accounting Standards (Ind AS) provisions. The qualitative part utilised a case study approach with content analysis to investigate context-relevant factors affecting standards adoption. The case studies focused on the implementation of selected Ind AS norms—specifically, Ind AS 1, 24, 36, 37, 109, 110, and 115 [22].

1.6. Analytical tools utilised

Data analysis and econometric modelling were performed using Microsoft Excel, IBM SPSS Statistics, Gretl, and R Studio. These tools enabled data cleaning, statistical calculations, and the use of advanced econometric methods. Their integrated application guaranteed analytical rigour, reproducibility, and the integrity of data-driven insights throughout all stages of the research.

1.7. Scope of the study

This study encompasses the periods preceding and following the implementation of Ind AS in the Indian corporate sector. It aims to assess the transition to Ind AS by examining its impact on financial transparency, reduction of financial fraud, strengthening corporate governance frameworks, and boosting investor confidence [23]. Utilising a firm-level empirical approach complemented by regulatory insights, this research makes a significant contribution to the discussion on accounting reform and financial governance in emerging markets.

1.8. Expected outcomes

- Demonstrate that Ind AS improves financial reporting accuracy and reduces financial fraud.
- 2. Demonstrate that companies with robust governance structures benefit more from adopting Ind AS.
- 3. Highlight challenges in Ind AS implementation and offer solutions.
- 4. Conclude that Ind AS enhances investor confidence by promoting transparency and ethical behaviour.
- Provide case study evidence showing that Ind AS reduces financial anomalies and promotes corporate ethics.

2. Content analysis: Indian accounting standards in preventing financial frauds

Indian Accounting Standards (Ind AS) play a significant role in preventing financial fraud. They ensure transparency, consistency, and accountability in financial reporting [1]. These standards, which have converged with the International Financial Reporting Standards (IFRS) to form a robust framework, help organisations present their financial statements honestly and fairly [3]. This convergence with IFRS means that Ind AS is not just a local standard but aligns with global best practices in financial reporting. Ind AS is a powerful tool in the fight against fraud [24].

2.1. Enhanced transparency and disclosure requirements

Ind AS mandates extensive disclosures, making it difficult for companies to hide or misrepresent financial information. By requiring detailed notes on various financial aspects, such as revenue recognition, related-party transactions, and financial instruments, the standards reduce opportunities for manipulation [25].

2.2. Fair valuation and measurement

Ind AS emphasises fair value measurement for assets and liabilities instead of historical cost accounting. This approach limits the ability to inflate or undervalue assets, provides a realistic financial picture, and prevents asset overstatement or understatement fraud.

2.3. Revenue recognition (Ind AS 115)

The recognition standard under Ind AS outlines stringent principles for recognising revenue, preventing companies from prematurely booking revenues to inflate earnings. This deters fraud involving the manipulation of sales figures or earnings reports [3].

2.4. Accounting for financial instruments (Ind AS 109)

Ind AS 109 ensures accurate classification and measurement of financial assets and liabilities, including provisions for expected credit

losses. This helps prevent the concealment of bad debts and ensures financial institutions accurately report their credit risk exposures.

2.5. Consolidation of financial statements (Ind AS 110)

Ind AS 110 mandates the consolidation of financial statements for subsidiaries and other controlled entities. This eliminates the possibility of hiding liabilities or manipulating the financial performance of group companies.

2.6. Stringent corporate governance

The standards enhance corporate governance by encouraging the establishment of internal controls and risk management systems aligned with accounting practices. This reduces opportunities for fraud and helps in early detection [25].

2.7. Auditor's role

With the implementation of Ind AS, auditors are required to pay closer attention to compliance with these standards. This ensures that financial statements are scrutinised more rigorously, making it harder for companies to commit fraud without detection [25].

2.8. Consistency and comparability

By standardising accounting practices, Ind AS ensures consistency across periods and company comparability. This uniformity reduces the scope for manipulation through inconsistent accounting treatments [25].

3. Indian accounting standards (Ind AS) help in preventing financial fraud

Indian Accounting Standards (Ind AS) enhance transparency, consistency, and comparability in financial reporting, thereby minimising opportunities for manipulation and fraud, as illustrated through data-driven Tables 1,2,3 and insightful Chart 1.

The chart below illustrates the impact of various Ind AS standards on key areas where financial fraud is commonly found.

Revenue Manipulation and Asset Overvaluation are the most frequent fraud risks addressed by Ind AS.

3.1. Major areas where Ind AS prevents fraud

The following pie chart in Graph 1 represents the percentage contribution of various Ind AS standards in preventing different types of financial fraud [37].

The chart highlights how IND AS addresses hidden liabilities (20 %) to ensure the company's financial health. It significantly curtails revenue manipulation (30 %) and asset overvaluation (25 %) through strict policies, such as fair value measurement and revenue recognition. Related-party transactions (15 %) are also addressed through mandatory disclosures, ensuring transparency. Other fraudulent activities (10 %) are minimised via a robust framework. IND AS enhances accountability, reliability, and investor confidence in financial statements.

4. Case study

Providing the full details of these case studies and their original balance sheets is restricted due to confidentiality and legal considerations, as corporate financial reports and internal documents may not be publicly available. However, this can be summarise each case with publicly available information and provide critical lessons from their financial reports in Table 4,5,6–53.

Table 1
Key Ind AS standards and their role in preventing financial frauds.

Ind AS Standard	Area Covered	Role in Preventing Fraud	Case Study Example
Ind AS 1	Presentation of Financial Statements	Ensures proper classification and disclosure, reducing the risk of manipulation and misstatement.	Case Study: IL&FS (Infrastructure Leasing & Financial Services): Manipulation in the classification of liabilities caused its financial collapse, drawing attention to proper financial reporting as per Ind AS 1 to avoid such incidents [26].
Ind AS 115	Revenue from Contracts with Customers	Prevents premature recognition of revenue, ensuring accurate reporting of earnings.	Case Study: Wipro - They applied Ind AS 115 for revenue recognition, demonstrating how proper standards prevent early revenue reporting and contribute to transparency [27].
Ind AS 109	Financial Instruments	Ensures proper classification, valuation, and disclosure of financial assets, reducing the risk of hidden liabilities.	Case Study: Yes Bank: The correct implementation of Ind AS 109 in evaluating financial instruments helped identify risk, especially related to NPAs (Non-Performing Assets) [28].
Ind AS 110	Consolidated Financial Statements	Mandates the consolidation of subsidiaries, preventing off-balance sheet liabilities and financial misrepresentation.	Case Study: Tata Sons: Ind AS 110 ensured proper consolidation, preventing off-balance sheet fraud involving subsidiaries [29].
Ind AS 36	Impairment of Assets	Prevents overvaluation of assets by requiring impairment tests to reflect an accurate financial position.	Case Study: Reliance Communications: Applied Ind AS 36 to adjust for impairment losses when the telecom sector experienced significant stress [30].
Ind AS 24	Related Party Disclosures	Requires transparent disclosure of transactions with related parties, reducing the risk of hidden financial fraud.	Case Study: Jet Airways: Failure to disclose related party transactions and financial misreporting could have been prevented by strict adherence to Ind AS 24 [31].
Ind AS 37	Provisions, Contingent Liabilities, and Assets	Ensures proper reporting of provisions and contingencies, avoiding underreporting of risks.	Case Study: Vodafone Idea: Adopted Ind AS 37 to disclose and manage contingent liabilities related to the AGR dues dispute with the government [32].
Ind AS 16	Property, Plant, and Equipment	Prevents overstatement of assets by requiring accurate depreciation and valuation methods.	the government [32]. Case Study: SAIL (Steel Authority of India): Followed Ind AS 16 to properly account for asset depreciation in heavy infrastructure investments [33].

Source: Authors' Research on Ind AS standards in financial fraud prevention: Case studies and analysis.

Table 2Impact of Ind AS on Financial Fraud Prevention.

Aspect	Ind AS Involved	Impact on Fraud Prevention
Revenue Manipulation	Ind AS 115	High
Asset Overvaluation	Ind AS 36, Ind AS 16	High
Hidden Liabilities	Ind AS 109, Ind AS 110, Ind AS 37	High
Related Party Transactions	Ind AS 24	Medium
Premature Revenue Recognition	Ind AS 115	High
Financial Instruments	Ind AS 109	High

Source: Author's Compiled.

Table 3Benefits of Ind AS in Enhancing Financial Reporting Integrity.

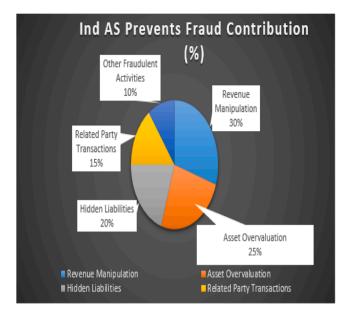
Benefit	Ind AS Feature	Impact	Company Example
Transparency	Comprehensive disclosure requirements	Reduces opportunities for fraud by identifying and addressing hidden or misclassified data.	Infosys: Known fo its transparent disclosures, following Ind AS to maintain high financial integrity [34].
Fair Valuation	Emphasis on fair value measurement (Ind AS 109)	Limits on overstatement or understatement of assets and liabilities.	Yes Bank: Utilised fair value measurement under Ind AS 109 to expose risks in its asset portfolio [28].
Comparability	Consistent reporting across entities (Ind AS 1)	Reduces manipulation by enforcing uniform accounting practices.	Wipro: Implemented consistent reporting, providing clarity in financial statements [35].
Consolidation	Consolidation of financial statements (Ind AS 110)	Prevents off-balance sheet financing and undisclosed liabilities.	Tata Group: Effective consolidation of subsidiaries to prevent fraud [29].
Accurate Revenue Recognition	Stringent revenue recognition (Ind AS 115)	It prevents companies from inflating earnings through early revenue reporting.	Hindustan Unilever Limited (HUL): Followed strict revenue recognition policies and maintained reliable earnings reports [36].

Source: Authors' Research on Ind AS standards in financial fraud prevention: Case studies and analysis.

4.1. IL&FS (Infrastructure leasing & financial services) - manipulation of liabilities (Ind AS 1)

The case of Infrastructure Leasing & Financial Services (IL&FS) illustrates the abuse of accounting standards, particularly Ind AS 1, to misrepresent financial health. Analysis of IL&FS's reports from 2017 to 2024 shows a peculiar pattern in the Debt-to-Equity Ratio, which stayed at 0 %. This is unusual for infrastructure and financial firms, which typically depend on borrowed capital. Reporting a zero Debt-to-Equity Ratio raises concerns about concealing off-balance sheet liabilities, creating a misleading financial image. This exemplifies financial window dressing, as liabilities may have been manipulated to mislead stakeholders, investors, and regulators about the actual financial condition.

IL&FS's financial ratio analysis suggests potential manipulation. The



Graph 1. Pie Chart: Major Areas Where Ind AS Prevents Fraud. Source: Author's Compiled.

Current Ratio surged from 7.4 % in 2017 to 318.2 % in 2024, indicating inflated current assets or understated liabilities. The Quick Ratio reflected this trend. The Return on Equity (ROE) dropped sharply in 2018 and fluctuated, while the Debt-to-Equity Ratio remained at 0 %, raising further concerns. Although Ind AS aims to enhance transparency, the IL&FS case shows that even strong standards can be misused without strict enforcement.

The rules used for triggering the "Fraud Suspected" indicator are based on significant anomalies in Return on Equity (ROE) and liquidity ratios. Rule 1 is activated when ROE drops by >70 % in a single year, which may suggest an abrupt decline in performance. Rule 2 flags concern when the ROE becomes negative, accompanied by a drop of >30 % in liquidity, indicating possible prolonged financial stress or manipulation. Rule 3 is triggered when ROE falls by over 500 %, marking an extreme anomaly and a strong potential red flag.

These rules, applied to the financial data, identified suspicions of fraud in 2018 (Rule 1), 2021 (Rule 2), and 2022 (Rule 3). Although these do not confirm fraudulent activity, such drastic shifts in performance and liquidity warrant a deeper forensic investigation to rule out misrepresentation or hidden operational issues.

4.1.1. Corporate governance adoption

IL&FS (Infrastructure Leasing & Financial Services) faced a corporate governance crisis due to liability manipulation, breaching Ind AS 1. A substantial decline in return on equity (ROE) in 2018, combined with increased liquidity issues, indicated performance challenges and heightened governance scrutiny. Although some governance improvements were made, they were reactive rather than proactive. Efforts were

Table 5Suspected fraud analysis.

Year	ΔROE	ΔCR	ΔQR	Fraud Suspected	Rule Triggered
2017	_	_	_	0	_
2018	(-0.747)	(8.243)	(8.243)	1	Rule 1 – Sharp ROE
					fall
2019	(1.049)	(-0.088)	(-0.088)	0	-
2020	(-0.202)	(0.258)	(0.258)	0	-
2021	(-1.433)	(-0.381)	(-0.381)	1	Rule 2 – ROE
					negative + poor
					liquidity
2022	(-5.276)	(0.235)	(0.235)	1	Rule 3 – Extremely
					poor ROE
2023	(0.718)	(1.187)	(1.187)	0	-
2024	(-0.070)	(1.425)	(1.425)	0	_

Source: Author's computation.

Table 6
Method of suspected fraud indicator (Adapted for ROE & Liquidity).

Indicator	Calculation	Interpretation Logic
ΔROE (%)	$ROE_{t}-ROE_{t-1}$	Large drops may indicate operational distress or earnings management
ΔCR (%) / ΔQR (%) Fraud Suspected	$CR_{t} - CR_{t-1} / QR_{t}$ $- QR_{t-1}$ Binary (0 = No, 1 = Yes)	Sharp decreases alongside negative ROE can suggest liquidity stress 1 is assigned when any rule is triggered

Source: Author compiled.

inconsistent, with no significant reforms in 2019 and 2020. More decisive actions emerged in 2021 and 2022, aligning with financial recovery. However, governance initiatives weakened again in 2023 and 2024 despite improved performance. This inconsistency highlights IL&FS's failure to implement strong governance practices, relying on temporary solutions during crises instead of fostering long-term accountability.

Table 7 shows that the descriptive statistics indicate significant data asymmetry and a non-normal distribution. The average ROE is 10.75, characterised by low variability yet high skewness (8.26), which suggests the presence of extreme positive outliers. The Current and Quick Ratios, with a mean of 96.84 and a standard deviation of 33.86, also demonstrate high skewness and leptokurtic patterns, reflecting a concentration of high values. The adoption of Indas is prevalent, with a mean of 0.88, accompanied by extreme kurtosis. The variables of pandemic, Suspected Fraud, and ECG exhibit clustering at lower values, implying modelling difficulties due to their skewed and peaked distributions.

The one-sample t-test results in Table 8 indicate that Return on Equity (ROE), Current Ratio, and Quick Ratio are significantly higher than the benchmark value of 2.365, with p-values of 0.024 (ROE), 0.027 (Current Ratio), and 0.027 (Quick Ratio), respectively. This indicates that these financial metrics exceed the benchmark statistically. Conversely, IndAS status, Pandemic, Suspected Fraud, and Enhanced Corporate Governance show significant negative t-values (p < 0.001), indicating their means fall below the benchmark value. Additionally,

Table 4Comparative analysis of IL&FS (infrastructure leasing & financial services) (2017–2024).

Year	Debt/Equity	ROE	CR	QR	IndAS	Pandemic	SF	Enhance Corporate Governance
2017	0	16.2	7.4	7.4	0	0	0	0
2018	0	4.1	68.4	68.4	1	0	1	1
2019	0	8.4	62.4	62.4	1	0	0	0
2020	0	6.7	78.5	78.5	1	1	0	0
2021	0	-2.9	48.6	48.6	1	1	1	1
2022	0	12.4	60.0	60.0	1	1	1	1
2023	0	21.3	131.2	131.2	1	0	0	0
2024	0	19.8	318.2	318.2	1	0	0	0

Source: Author's calculations with company annual reports (https://www.ilfsindia.com/).

Table 7Descriptive analysis of IL&FS (Infrastructure Leasing & Financial Services).

Descriptive Statistics	Descriptive Statistics										
	N	Mean	Mean		Skewness		Kurtosis				
	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error			
ROE	8	10.75	2.92	8.26	-0.28	0.75	-0.71	1.48			
Current Ratio	8	96.84	33.86	95.76	2.16	0.75	5.19	1.48			
Quick Ratio	8	96.84	33.86	95.76	2.16	0.75	5.19	1.48			
IndAS status	8	0.88	0.13	0.35	-2.83	0.75	8.00	1.48			
Pandemic	8	0.38	0.18	0.52	0.64	0.75	-2.24	1.48			
Suspected Fraud	8	0.38	0.18	0.52	0.64	0.75	-2.24	1.48			
Enhance Corporate Governance	8	0.38	0.18	0.52	0.64	0.75	-2.24	1.48			
Valid N (list-wise)	8										

Table 8 One-sample test.

One-Sample Test									
	Test Value =	2.365							
	t df Sig. (2-tailed) Mean Difference 95 % Confiden					lence Interval of the Difference			
					Lower	Upper			
ROE	2.87	7	.024	8.38	1.47	15.29			
Current_Ratio	2.79	7	.027	94.47	14.41	174.53			
Quick_Ratio	2.79	7	.027	94.47	14.41	174.53			
IndAS_status	-11.92	7	.000	-1.49	-1.79	-1.19			
Pandemic	-10.87	7	.000	-1.99	-2.42	-1.56			
Suspected_Fraud	-10.87	7	.000	-1.99	-2.42	-1.56			
Enhance_Corporate_Governance	-10.87	7	.000	-1.99	-2.42	-1.56			

Source: Through SPSS compiled by the Author.

narrow confidence intervals reinforce these crucial differences. These findings suggest a substantial divergence from the benchmark, highlighting potential structural or policy-related disparities within the dataset.

The multinomial logit results in Table 9 indicate that Return on Equity (ROE) harms IndAS adoption ($\beta=-1.5587,\ p=0.0000$). In contrast, the Current Ratio (CR) has a positive influence on it ($\beta=0.6508,\ p=0.0000$). This suggests that companies with strong liquidity and lower profitability are more inclined to adopt Indas. However, both ROE and CR do not significantly impact the outcomes related to the Pandemic, Suspected Fraud (SF), or Enhanced Corporate Governance (ECG), indicating their limited predictive capability in these areas.

Table 10 summarises model fit statistics for four models. Model 1 (IndAS) stands out with perfect 100 % correct predictions and a statistically significant likelihood ratio test (p=0.0039), indicating an excellent fit. In contrast, Models 2, 3, and 4 show lower correct predictions (75 %) and non-significant likelihood ratio tests, suggesting a poorer overall fit. This highlights Model 1's superior Performance in explaining the observed data.

4.2. Wipro- revenue recognition (Ind AS 115)

The Company was established on April 13, 2015, and has been

Table 9Combined Multinomial Logit Model Estimation Results (2017–2024).

Variable	Model 1: IndAS (β, p-value)	Model 2: Pandemic (β, p-value)	Model 3: $SF < br > (\beta, p\text{-value})$	Model 4: ECG (β, p-value)
ROE	-1.5587, 0.0000	-0.1030, 0.3002	-0.1308, 0.2895	-0.1308, 0.3157
CR	0.6508, 0.0000	0.0013, 0.8661	0.0029, 0.7374	0.0029, 0.8123

Source: Author's Compiled.

implementing Ind AS since then. Accounting policies have been consistently applied in these financial statements. Wipro Limited, based on the same date, adopted Ind AS 115 - Revenue from Contracts with Customers, promoting uniform revenue recognition from the outset. Ind AS 115 emphasises revenue recognition based on control transfer, improving transparency and comparability.

Table 11 illustrates that Wipro's revenue growth fluctuated between 2017 and 2024, with positive increases observed in 2019, 2020, 2022, and 2023, while declines were noted in 2018 and 2024. The gross profit margin varied from 21.1 % to 27.7 %, and the net profit margin ranged from 12.4 % to 17.5 %, reflecting effective cost control. The return on equity reached a high of 19.7 % in 2021 but decreased to 14.8 % by 2024. Following Ind AS 115, Wipro's profitability demonstrates a dedication to transparent reporting and sound financial management [38].

We will apply three rules to detect suspected fraud, focusing on key financial metrics outlined in Table 12. Rule 1 flags a substantial positive spike in Revenue Growth Rate (change > 10 %) from the previous year, alongside significant drops in Gross Profit Margin (change < -2 %) and Net Profit Margin (change < -2 %) in the current year. Rule 2 flags a notable decrease in Gross Profit Margin (change < -5 %). Lastly, Rule 3 indicates concern for a considerable drop in Net Profit Margin (change < -5 %). By applying these rules to the financial data, we can evaluate potential indicators of fraud over time.

4.2.1. Corporate governance adoption: 2015–2024

From 2015 to 2016, Wipro made minimal progress in its corporate governance practices, continuing to adhere to Indian Generally Accepted Accounting Principles (GAAP) while preparing to transition to International Financial Reporting Standards (IFRS) or Ind AS. During the 2017–2018 period, Wipro began adopting Ind AS, resulting in improved financial transparency and governance, particularly with the introduction of Ind AS 115 for revenue recognition. Starting in 2019, Wipro has strengthened its governance framework through enhanced board

Table 10 Model fit statistics summary.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ², p-value)
Model 1: IndAS	-0.00000000406	4.000	4.159	2.928	8 / 8 (100 %)	$\chi^2(4) = 11.090, p = 0.0039$
Model 2: Pandemic	-4.4153	12.831	12.990	11.759	6 / 8 (75 %)	$\chi^2(4) = 2.260, p = 0.3231$
Model 3: SF	-4.1335	12.267	12.426	11.195	6 / 8 (75 %)	$\chi^2(4) = 2.823, p = 0.2437$
Model 4: ECG	-4.1335	12.267	12.426	11.195	6 / 8 (75 %)	$\chi^2(4) = 2.823, p = 0.2437$

Table 11 Comparative analysis (2017–2024).

Year	Revenue Growth Rate (%)	Gross Profit Margin (%)	Net Profit Margin (%)	ROE (%)	IndAS	Pandemic	SF	ECG
2015	4.1	27.1	18.5	23.3	0	0	0	0
2016	2.6	26.4	17.5	19.3	0	0	0	0
2017	2.7	24.1	15.4	16.4	0	0	0	0
2018	-3.1	23.7	14.7	16.7	1	0	0	1
2019	7.4	25.1	15.3	15.9	1	0	0	1
2020	4.3	24.6	15.9	17.6	1	1	0	1
2021	-0.4	27.7	17.5	19.7	1	1	0	1
2022	22	23.6	15.4	18.7	1	1	1	1
2023	9.1	21.1	12.6	14.6	1	0	0	1
2024	-0.4	21.6	12.4	14.8	1	0	0	1

Source: Author's calculations with company annual reports (https://www.wipro.com).

Table 12 Suspected fraud analysis.

Year	Revenue Growth Rate (%)	Gross Profit Margin (%)	Net Profit Margin (%)	ROE (%)	Revenue Growth Rate Change (YoY)	Gross Profit Margin Change (YoY)	Net Profit Margin Change (YoY)	Fraud_Suspected
2015	4.1	27.1	18.5	23.3	N/A	N/A	N/A	0
2016	2.6	26.4	17.5	19.3	-1.5	-0.7	-1	0
2017	2.7	24.1	15.4	16.4	0.1	-2.3	-2.1	0
2018	-3.1	23.7	14.7	16.7	-5.8	-0.4	-0.7	0
2019	7.4	25.1	15.3	15.9	10.5	1.4	0.6	0
2020	4.3	24.6	15.9	17.6	-3.1	-0.5	0.6	0
2021	-0.4	27.7	17.5	19.7	-4.7	3.1	1.6	0
2022	22	23.6	15.4	18.7	22.4	-4.1	-2.1	1
2023	9.1	21.1	12.6	14.6	-12.9	-2.5	-2.8	0
2024	-0.4	21.6	12.4	14.8	-9.5	0.5	-0.2	0

Source: Author's Compiled.

oversight, expanded ESG initiatives, increased ethical disclosures, and improved risk management. By 2023 and 2024, the company had aligned with global governance standards, providing integrated reports and maintaining high levels of transparency and accountability.

Table 13 presents statistics for financial and governance variables over a decade, highlighting key trends. The average revenue growth rate is 4.83 % with a standard deviation of 7.05, indicating variability. The distribution has skewness of 1.72 and kurtosis of 3.85, classifying it as right-skewed and leptokurtic. The gross and net profit margins average

24.50 % and 15.52 %, respectively, with slight negative skewness and low kurtosis, reflecting mild asymmetry. Return on Equity (RoE) averages 17.70 % with a positive skew of 0.94, indicating occasional high values. The IndAS, Pandemic, and Enhance Corporate Governance variables are binary, with means of 0.70, 0.30, and 0.70. The Suspected Fraud variable has a low mean of 0.10 but is highly skewed, showing rare but extreme occurrences. These statistics provide insights into financial stability and governance practices.

The one-sample *t*-test results in Table 14 reveal significant findings.

Table 13Descriptive statistics.

Descriptive Statistics								
	N Mean			Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic Std. Error Statistic		Statistic	Std. Error	Statistic	Std. Error
Revenue Growth Rate	10	4.83	2.23	7.05	1.72	.68	3.85	1.33
Gross Profit Margin	10	24.50	.68	2.17	-0.10	.68	-0.73	1.33
Net Profit Margin	10	15.52	.63	1.99	-0.24	.68	-0.52	1.33
RoE	10	17.70	.83	2.64	.94	.68	.95	1.33
IndAS	10	.70	.15	.48	-1.03	.68	-1.22	1.33
Pandemic	10	.30	.15	.48	1.03	.68	-1.22	1.33
Suspected Fraud	10	.10	.10	.31	3.16	.68	10.00	1.33
Enhance Corporate_Governance	10	.70	.15	.48	-1.03	.68	-1.22	1.33
Valid N (listwise)	10							

Source: Through SPSS compiled by the Author.

With a test value of 2.262, Gross Profit Margin, Net Profit Margin, and Return on Equity (RoE) exceed this value significantly, with low p-values (p=0.000) against the null hypothesis. Their mean differences are significant, and the 95 % confidence intervals do not include zero, confirming statistical significance. In contrast, the Revenue Growth Rate (t=1.152, p=0.279) does not differ significantly from the test value, as indicated by a wide confidence interval that encompasses both negative and positive values. IndAS, Pandemic, Suspected Fraud, and Enhance Corporate Governance exhibit significant negative t-values and p-values (p=0.000), indicating their mean occurrences are lower than the benchmark. Overall, findings indicate strong financial performance in profitability metrics, while governance-related variables show consistent patterns throughout the assessed period.

Table 15 presents the estimation results from the Combined Multinomial Logit Model for the period from 2015 to 2024. It highlights the effects of key financial variables on various outcome models: ECG, IndAS, SF, and Pandemic Impact. The Revenue Growth Ratio, ROE, Gross Profit Margin, and Net Profit Margin are statistically significant (p < 0.01) in Models 1 (ECG), 2 (IndAS), and 3 (SF), indicating they strongly predict these outcomes. Notably, "Net

Profit Margin" shows a significant adverse effect in Models 1 and 2, while "Gross Profit Margin" shows a significant positive effect. In contrast, these financial variables reveal no statistical significance (NS) in Model 4 (Pandemic Impact), indicating they do not predict pandemic-related outcomes. This highlights the varying predictive power of financial metrics, depending on the specific model analysed.

When assessing statistical models in the Table 16, several criteria evaluate their fit and predictive ability. AIC (Akaike information criterion) the model adapts too much to training data, leading to poor generalizability. Lastly, the Likelihood Ratio Test evaluates the overall significance of predictors; a statistically significant p-value (generally below 0.05) indicates strong explanatory power

4.3. Yes, bank - financial instruments (Ind AS 109)

The introduction of Indian Accounting Standard (Ind AS) 109 – Financial Instruments brought about a significant change in how banking institutions, such as Yes Bank, report financials. This change primarily affects the classification, measurement, and impairment of financial assets and liabilities. From 2017 to 2024, Yes Bank has faced various challenges and recoveries related to asset quality, risk management, and profitability, all of which have been shaped by the

Table 14One-Sample Test.

One-Sample Tes	st						
	Test Value	= 2.2	:62				
	t	df	Sig. (2-tailed)	Mean Difference	95 % Confidence Interval of the Difference		
					Lower	Upper	
Revenue Growth Rate	1.152	9	.279	2.56800	-2.4766	7.6126	
Gross Profit Margin	32.338	9	.000	22.23800	20.6824	23.7936	
Net Profit Margin	20.999	9	.000	13.25800	11.8298	14.6862	
RoE	18.470	9	.000	15.43800	13.5471	17.3289	
IndAS	-10.226	9	.000	-1.562	-1.91	-1.22	
Pandemic	-12.844	9	.000	-1.962	-2.31	-1.62	
Suspected Fraud	-21.620	9	.000	-2.162	-2.39	-1.94	
Enhance Corporate Governance	-10.226	9	.000	-1.562	-1.91	-1.22	

Source: Through SPSS compiled by the Author.

Table 15Combined multinomial logit model estimation results (2015–2024).

	U		,	•
Variable	Model 1: ECG br>(β, p-value)	Model 2: IndAS (β, p-value)	Model 3: SF br>(β, p-value)	Model 4: Pandemic Impact (β, p-value)
Revenue Growth Ratio	19.7836, 0.0000	19.7836, 0.0000	2.4959, 0.0000	0.1153, 0.2657
ROE (Return on Equity)	62.7675, 0.0000	62.7675, 0.0000	-3.3416, 0.0000	-0.2876, 0.6102
Gross Profit Margin	130.0130, 0.0000	130.0130, 0.0000	-9.7285, 0.0000	-0.6073, 0.2836
Net Profit Margin	$-274.8960, \\ 0.0000$	-274.8960, 0.0000	16.7503, 0.0000	1.1897, 0.3668

Source: Author's Compiled.

requirements of Ind AS 109.

In Table 17, prior to its asset quality crisis, Yes Bank had recorded low gross NPA levels. However, following the implementation of Ind AS 109, NPAs skyrocketed to 16.80 % in 2020, highlighting previously obscured risks. Recovery efforts gradually decreased non-performing assets (NPAs) to 1.70 % by 2024. The Provision Coverage Ratio declined during the crisis but rebounded to 428 %, and the Return on Assets (RoA) also improved. Ind AS 109 increased transparency, uncovering vulnerabilities and aiding long-term recovery alongside enhanced risk management.

Table 18 shows a rise in GNPA and NNPA in 2019–2020, a sharp decline in PCR and RoA, and a decrease in CAR, which triggered fraud detection in 2020. Fraud reappeared in 2021 and 2023 with varying rules, indicating financial distress patterns linked to NPA trends and poor asset quality.

Table 19 outlines a method to detect potential fraud using key financial indicators. Variations in Gross and Net Non-Performing Assets (NPAs) indicate asset quality and credit risk. A decreasing Provision Coverage Ratio (PCR) alongside rising Non-Performing Assets (NPAs) suggests inadequate provisioning. Consecutive years of negative Return on Assets (RoA) reflect operational strain. A Capital Adequacy Ratio (CAR) dropping below 10 % signals a weak capital buffer. Visual indicators highlight the severity of these changes. Fraud suspicion is marked as binary (1 = Yes) based on significant GNPA increases with declining PCR, sustained negative RoA, or dubious provisioning adjustments.

4.3.1. Corporate governance adoption

From 2017 to 2018, Yes Bank projected effective governance, concealing serious issues like promoter control and inadequate risk management. By 2019, governance flaws emerged due to concerns from the RBI and the departure of CEO Rana Kapoor amid allegations of fraud. The pivotal year of 2020 saw the RBI initiate restructuring, reorganise leadership, and address shortcomings. Kapoor's arrest unveiled further misconduct. From 2021 to 2024, the bank focused on regaining trust through board reforms, policy enforcement, and increased transparency, highlighting efforts to restore strong corporate governance and enhance credibility.

Table 20 presents descriptive statistics for eight variables over eight years, highlighting significant insights. Both Gross NPA and Net NPA exhibit moderate positive skewness, indicating a right-tailed distribution, whereas CAR displays strong negative skewness, suggesting a left-tailed concentration. CAR's high kurtosis (6.169) indicates sharp peakedness, while most variables exhibit negative kurtosis, reflecting flatter distributions. RoA has the highest variability with a standard deviation of 2.94, indicating fluctuating profitability. Binary variables, such as pandemic, suspected fraud, and governance enhancement,

Table 16 Model fit statistics summary.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ^2 , p-value)
Model 20 (ECG)	-7.57e-08	8.0000	9.2103	6.6723	10 / 10 (100 %)	$\chi^2(4) = 13.863, p = 0.0077$
Model 21 (IndAS)	-7.57e-08	8.0000	9.2103	6.6723	10 / 10 (100 %)	$\chi^2(4) = 13.863, p = 0.0077$
Model 15 (SF)	-4.25e-09	8.0000	9.2103	6.6723	10 / 10 (100 %)	$\chi^2(4) = 13.863, p = 0.0077$
Model 19 (Pandemic)	-5.3721	18.7442	19.9546	17.4165	8 / 10 (80 %)	$\chi^2(4) = 3.1187, p = 0.5382$

Table 17

Analysis of Yes bank - financial instruments (Ind AS 109) (2017–2024).

year	GNPA	NNPA	PCR	RoA	CAR	Pandemic	IndAS	Suspected Fraud	Enhance Corporate Governance
2017	1.52	0.81	46.88	1.8	17	0	0	0	0
2018	1.28	0.64	50.02	1.6	18	0	0	0	0
2019	3.22	1.86	43.1	0.5	17	0	1	0	0
2020	16.8	5.03	73.77	-5.1	8	1	1	1	1
2021	15.41	5.88	65.7	-5.7	17	1	1	1	1
2022	13.93	4.532	70.67	0.4	17	1	1	0	1
2023	2.17	0.83	62.27	0.2	18	0	1	1	1
2024	1.7	0.6	66.61	0.3	15	0	1	0	1

Source: Author's calculations with company annual reports(https://www.yesbank.in).

Table 18
Suspected fraud analysis from NPA & financial ratios.

Year	ΔG-NPA	ΔN—NPA	PCR	RoA	CAR	Fraud_Suspected_	Rule Triggered
2017	_	_	571	1.80	17	0	_
2018	-0.24	-0.17	421	1.60	18	0	_
2019	1.9	1.22	227	0.50	17	0	_
2020	13.58	3.17	52	-5.10	8	1	Rule $1+2$
2021	-1.39	0.85	47	-5.70	17	1	Rule 2
2022	-1.48	-1.35	54	0.40	17	0	_
2023	-11.76	-3.7	434	0.20	18	1	Rule 3
2024	-0.47	-0.23	428	0.30	15	0	_

Source: Author's Compiled.

exhibit low means and identical statistics due to limited variation. Overall, the data indicates a non-normal distribution with some variables exhibiting skewed behaviour and differing dispersion trends.

Table 21 shows the one-sample t-test results for Yes Bank's indicators with a test value of 2.365. The Gross NPA and Net NPA do not differ significantly from the benchmark (p>0.05), indicating no substantial deviation from the benchmark. However, the Provision Coverage Ratio (p=0.000) and Capital Adequacy Ratio (CAR) (p=0.000) exhibit significant increases, highlighting substantial capital and provisioning buffers. The Return on Assets (RoA) is notably lower (p=0.020), indicating weak profitability. Factors such as the pandemic, IndAS, suspected fraud, and governance enhancement show significant negative mean differences (p=0.000), reflecting operational or regulatory challenges faced during this period.

The results from the four models presented in Table 22—ECG, IndAS, SF, and Pandemic Impact—demonstrate differing influences of financial indicators. GNPA has a significant impact on all models, causing adverse effects in ECG and IndAS, while positively influencing SF. NNPA is insignificant in ECG but shows high significance in the other models, with positive effects in IndAS and negative ones in SF and Pandemic Impact. PCR consistently proves significant across the models, positively impacting ECG and IndAS, although it has a negative influence on SF and Pandemic Impact. RoA and CAR are mainly significant, with RoA remaining consistently negative. CAR shows varied effects, resulting in significantly adverse outcomes in ECG and IndAS but positive results in Suspected fraud.

Table 23 illustrates that all four models—Pandemic Impact, IndAS, SF, and ECG—achieve perfect predictive accuracy (100 %) with matching log-likelihood, AIC, BIC, and HQ values. The results from the Likelihood Ratio Test are statistically significant for all models ($\chi^2=$

11.090, p=0.0496), indicating that each model effectively accounts for the variation in the dependent variable.

4.4. Tata sons - consolidation (Ind AS 110)

Ind AS 110 outlines that the Independent Auditor's Report on Tata International Limited's Consolidated Financial Statements for the year ended March 31, 2020, evaluates internal financial controls by Section 143(3)(i) of the Companies Act, 2013. Auditors assessed these controls for the Holding Company and its subsidiaries, associates, and joint ventures in India. Ensuring adequate internal controls falls to the Boards of Directors, which is crucial for maintaining the effectiveness of financial processes, protecting assets, detecting fraud, and ensuring accurate reporting. The auditor's role was to express an opinion on the organisation's internal controls and financial statements. In 2017, Tata Sons changed from a public limited to a private limited company, contested by former executive chairman Cyrus Mistry. In 2019, the NCLAT deemed this conversion and Chairman Chandrasekaran's appointment illegal, reinstating Mistry.

Table 24 shows that between 2018 and 2024, Tata Sons underwent significant changes in its financial and governance metrics. The Debt/Equity Ratio sharply increased in 2020 due to the pandemic, signalling financial stress, while the Growth Assets Ratio fluctuated and became negative during 2020–2021. The adoption of Ind AS in 2018 enhanced transparency. While allegations of fraud emerged during the pandemic years, governance practices consistently improved after 2020, indicating a substantial evolution in corporate governance from 2018 onward. These trends reflect strategic adjustments and resilience in the face of economic difficulties and regulatory shifts, thereby reinforcing long-term corporate stability.

Table 19 Method of suspected fraud indicator.

Indicator	Calculation Method	Interpretation Logic
ΔG-NPA (%)	G-NPAt-G-NPAt-1	A significant increase may signal a deterioration in asset quality.
ΔN—NPA (%)	N-NPAt- <i>N</i> —NPAt-1	An increase indicates ineffective provisioning and rising credit risk.
PCR (%)	Reported directly, trend analysis is used	Falling PCR with rising NPAs suggests inadequate provisioning.
RoA (%)	Reported directly	A negative Return on Assets (RoA) over multiple years signals poor profitability or potential manipulation.
CAR (%)	Reported directly	A fall below 10 % is considered a sign of a weak capital cushion.
Indicators	Based on thresholds: ± 0.1 to	Used for visual
(Increase (I)	$\pm 1.0 = I$ or D; ± 1.0 to $\pm 5.0 =$	representation of the
/Decrease	more I or More D; $> \pm 5.0 =$	intensity of change in
(D))	High I/ High D	financial indicators.
Fraud	Binary (0 = No, $1 = Yes$), based	1 is assigned when specific
Suspected	on rule trigger	patterns or rules indicating manipulation or risk are detected.
Rule 1	$\Delta G -\!$	Indicates deterioration in asset quality due to inadequate provisioning.
Rule 2	RoA < 0 for two or more consecutive years	Suggests ongoing operational or financial stress.
Rule 3	G-NPA drops drastically, and PCR increases sharply	May indicate possible window dressing or manipulation in bad loan reporting or provisioning.

Table 25 presents the suspected fraud analysis for Tata Sons, revealing anomalies in 2020 and 2021. In 2020, the debt-to-equity ratio saw a significant increase, triggering Rule 1 and suggesting potential financial distress. In 2021, a dramatic decrease in assets triggered Rule 2. These two years raised flags for suspected fraud, whereas the other years showed stability with no rule triggers or indications of fraud.

4.4.1. Corporate governance adoption

Tata Sons' corporate governance has evolved since 2018, following the implementation of Indas, marked by increased transparency in debt and assets. By 2020, governance had gained importance due to a rising debt-to-equity ratio, the challenges posed by COVID-19, and allegations of fraud, which exposed systemic weaknesses and prompted enhanced oversight. Since 2021, Tata Sons has strengthened its governance commitment, achieving better financial stability and maintaining fraud-

Table 21Yes, Bank, One-Sample T-Test.

	Test Value	= 2.3	65			
	t	df	Sig. (2- tailed)	Mean Difference	95 % Confidence Interval of the Difference	
					Lower	Upper
Gross NPA	1.874	7	.103	4.63875	-1.2155	10.4930
Net NPA	.199	7	.848	.15775	-1.7136	2.0291
Provision Coverage Ratio	14.023	7	.000	57.51250	47.8141	67.2109
RoA	-3.001	7	.020	-3.11500	-5.5695	-0.660
CAR	11.531	7	.000	13.51000	10.7395	16.2805
Pandemic	-10.875	7	.000	-1.990	-2.42	-1.56
IndAS	-9.868	7	.000	-1.615	-2.00	-1.23
Suspected fraud	-10.875	7	.000	-1.990	-2.42	-1.56
Enhance Corporate Governance	-9.509	7	.000	-1.740	-2.17	-1.31

Source: Through SPSS compiled by the Author.

free operations. In summary, regulatory changes and crises have driven Tata Sons to adopt a stricter governance framework.

The descriptive analysis of Tata Sons from 2015 to 2024, shown in Table 26, indicates a significant average Debt/Equity Ratio (mean = 5.898) with considerable variability, suggesting occasional financial difficulties. On average, asset growth reached 17.03 %, although there was some skewness in the data. The implementation of IndAs averaged 70 %, while the pandemic influenced 30 % of the examined years. Suspected fraud occurred in 20 % of the cases. Additionally, emerging corporate governance practices were noted in 60 % of instances, reflecting progressive improvements in governance over time. Refer to Table 26.

The one-sample t-test results for Tata Sons, shown in Table 27, indicate that the Debt/Equity Ratio and Growth in Assets are not significantly different from the test value of $2.262\ (p>0.05)$. Conversely, the adoption of Indas, the effects of the pandemic, allegations of fraud, and emerging corporate governance practices exhibit statistically significant differences (p<0.001). These findings highlight significant deviations in accounting standards, the crisis's impact, indicators of fraud, and advancements in governance compared to expected norms during the analysed period

The multinomial logit analysis results for Tata Sons (2015–2024), presented in Table 28, reveal a significant correlation between a higher Debt/Equity Ratio and an increased likelihood of adopting IndAS (β = 1.2598, p = 0.0060), as well as enhancing corporate governance (β = 1.5122, p = 0.0098). This suggests a strategic shift toward enhanced

Table 20Yes, Bank descriptive analysis.

Descriptive Statistics											
	N Statistic	N Mean Std. Dev		Skewness		Kurtosis					
		Statistic	Statistic Statistic		Std. Error	Statistic	Std. Error				
Gross NPA	8	7.0038	7.00254	.664	.752	-2.045	1.481				
Net NPA	8	2.5228	2.23844	.641	.752	-1.812	1.481				
Provision Coverage Ratio	8	59.8775	11.60063	-0.417	.752	-1.658	1.481				
RoA	8	-0.7500	2.93598	-1.269	.752	-0.113	1.481				
CAR	8	15.8750	3.31393	-2.429	.752	6.169	1.481				
Pandemic	8	.38	.518	.644	.752	-2.240	1.481				
IndAS	8	.75	.463	-1.440	.752	.000	1.481				
Suspected fraud	8	.38	.518	.644	.752	-2.240	1.481				
Enhance Corporate Governance	8	.63	.518	-0.644	.752	-2.240	1.481				
Valid N (list-wise)	8										

Source: Through SPSS compiled by the Author.

 Table 22

 Combined multinomial logit model estimation results.

Variable	Model 1: ECG & lt;br>(beta, p-value)	Model 2: IndAS & lt;br>(beta, p-value)	Model 3: SF & lt;br>(beta, p-value)	Model 4: Pandemic Impact & lt;br>(beta, p-value)
GNPA	-7.8368,	-22.3507,	34.9279,	9.44520,
	0.0468	(0.0000)	0.0000	4.57e-11
NNPA	14.7203,	64.7880,	-142.9960,	-17.5174,
	0.1953	0.0000	0.0000	1.63e-05
PCR	3.4067,	2.35804,	-2.6930,	-0.499889,
	0.0000	0.0000	0.0000	0.0011
RoA	-1.7310,	-15.6870,	-48.6751,	-1.13391,
	0.1857	0.0000	0.0000	0.0313
CAR	-10.4023,	-7.12446,	13.3269,	0.248950,
	0.0000	0.0000	0.0000	0.6403

Table 23Model Fit Statistics Summary.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (chi2, p-value)
Model 1: Pandemic Impact	-6.47e-09	10.00000	10.39721	7.320994	8 / 8 (100 %)	chi2=11.0904, p=0.0496
Model 2: IndAS	-3.74e-09	10.00000	10.39721	7.320994	8 / 8 (100 %)	chi2(5)=11.090, p=0.0496
Model 3: SF	-7.88e-09	10.00000	10.39721	7.320994	8 / 8 (100 %)	chi2(5)=11.090, p=0.0496
Model 4: ECG	-7.01e-09	10.00000	10.39721	7.320994	8 / 8 (100 %)	chi2(5)=11.090, p=0.0496

Source: Author's Compiled.

Table 24Tata Sons comparative analysis (2018–2024).

Year	Debt/Equity Ratio	Growth Assets Ratio	IndAS	Pandemic	Suspected Fraud	Emergence of Corporate Governance
2015	0.41	15.28	0	0	0	0
2016	0.37	1.64	0	0	0	0
2017	0.74	17.01	0	0	0	0
2018	1.76	91.23	1	0	0	1
2019	0.23	22.19	1	0	0	0
2020	48.51	-2.3	1	1	1	1
2021	1.63	-41.34	1	1	1	1
2022	1.66	30.86	1	1	0	1
2023	1.79	10.49	1	0	0	1
2024	1.88	25.3	1	0	0	1

Source: Author's calculations based on Tata Sons annual reports (tata.com, About Us).

transparency in the context of financial leverage. In contrast, the Growth Assets Rate has a notably adverse effect on the likelihood of fraudulent activities ($\beta=-10.6839, p<0.0001$), indicating that a decrease in asset growth greatly heightens the risk of fraud. The other variables do not exhibit significant effects, underscoring the predominant role of financial structure and performance in important governance and fraudrelated outcomes.

In Table 29, Model 3 (Suspected Fraud) exhibits the best fit, with 100 % prediction accuracy, the lowest AIC/BIC values, and a highly

significant chi-square (p=0.0010). Other models (IndAS, Pandemic, ECG) have moderate fits, with 70–90 % accuracy and marginal statistical significance.

4.5. Reliance communications - impairment losses (Ind AS 36)

The implementation of Ind AS 36 — Impairment of Assets — has fundamentally transformed financial reporting practices among Indian companies, especially those in financial distress, such as Reliance

Table 25 Suspected fraud analysis of Tata Sons.

Year	Debt/Equity Ratio	Δ D/E Ratio	Asset Growth %	Rule 1 ($\Delta D/E > 10$)	Rule 2 (Asset Growth < -30 %)	Rule 3 (D/ $E > 10$ & Neg. Growth)	Fraud Suspected
2015	0.41	_	15.28	0	0	0	0
2016	0.37	-0.04	1.64	0	0	0	0
2017	0.74	0.37	17.01	0	0	0	0
2018	1.76	1.02	91.23	0	0	0	0
2019	0.23	-1.53	22.19	0	0	0	0
2020	48.51	48.28	-2.3	1	0	0	1
2021	1.63	-46.88	-41.3	0	1	0	1
2022	1.66	0.03	30.86	0	0	0	0
2023	1.79	0.13	10.49	0	0	0	0
2024	1.88	0.09	25.3	0	0	0	0

Table 26Descriptive analysis of Tata Sons.

Descriptive Statistics									
	N	Mean	Std. Deviation	Skewness Ki		Kurtosis	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error		
DE_Ratio	10	5.8980	14.98707	3.151	.687	9.946	1.334		
Growth_Assets	10	17.0360	33.09132	.773	.687	3.333	1.334		
IndAS	10	.70	.483	-1.035	.687	-1.224	1.334		
Pandemic	10	.30	.483	1.035	.687	-1.224	1.334		
Suspected_Fraud	10	.20	.422	1.779	.687	1.406	1.334		
Emerging_CG	10	.60	.516	-0.484	.687	-2.277	1.334		
Valid N (listwise)	10								

Table 27 T-Test of Tata Sons.

One-Sample Test										
	Test Value = 2.262									
	t	df	Sig. (2-tailed)	Mean Difference	95 % Confiden	ce Interval of the Difference				
					Lower	Upper				
DE_Ratio	.767	9	.463	3.63600	-7.0851	14.3571				
Growth_Assets	1.412	9	.192	14.77400	-8.8981	38.4461				
IndAS	-10.226	9	.000	-1.562	-1.91	-1.22				
Pandemic	-12.844	9	.000	-1.962	-2.31	-1.62				
Suspected_Fraud	-15.465	9	.000	-2.062	-2.36	-1.76				
Emerging_CG	-10.178	9	.000	-1.662	-2.03	-1.29				

Source: Through SPSS compiled by the Author.

Table 28 Combined multinomial logit model estimation results (2015–2024).

Variable	Model 1: IndAS (β, p-value)	Model 2: Pandemic (β, p-value)	Model 3: Suspected Fraud (SF)< br>(β, p- value)	Model 4: Emergence of Corporate Governance (ECG) br>(β, p-value)
Debt/ Equity Ratio	1.2598, 0.0060	0.1198, 0.2740	-0.0397, 0.2590	1.5122, 0.0098
Growth Assets Rate	-0.0018, 0.9039	-0.0630, 0.1896	-10.6839, 0.0000	-0.0195, 0.2926

Source: Author's Compiled.

Communications (RCom). Before adopting Ind AS, companies recognised impairment losses conservatively, relying on historical cost accounting principles under Indian GAAP, which limited forward-looking evaluations of asset recoverability [39]. In contrast, the introduction of Ind AS 36 required a more thorough and standardised process for impairment testing, mandating companies to determine the recoverable amount of assets at every reporting date and to recognise impairment losses whenever the carrying amount surpasses the recoverable amount.

Table 30 reveals that Reliance Communication experienced significant financial distress from 2018 onward, as indicated by a sharp decline in Return on Equity (RoE) of -856.59 % in 2018 and recurring low

Return on Capital Employed (RoCE) values. The implementation of Ind AS began in 2018, aligning with the emergence of corporate governance and the detection of suspected fraud. The pandemic had a further impact on operations from 2020 to 2022. Following 2022, governance efforts continued, but financial recovery remained limited, with stagnant returns.

Table 31 shows evidence of suspected fraud at Reliance Communications for the years 2018, 2019, 2023, and 2024. In 2018, Rule 1 came into effect as the Return on Equity (RoE) plummeted to a negative value of below –100 %. Then, in 2019, Rule 2 was activated due to a decrease in Return on Capital Employed (RoCE) exceeding 20 %. By 2023 and 2024, Rule 3 was triggered when RoE remained at zero for more than three consecutive years. These trends suggest potential financial instability, as well as the possibility of misreporting or governance failures.

4.5.1. Corporate governance

Between 2016 and 2024, Reliance Communications experienced fluctuating responses in corporate governance. Significant governance changes emerged in 2018, 2019, 2023, and 2024, coinciding with severe financial distress (e.g., a Return on Equity of –856.59 in 2018), the implementation of IndAS, or allegations of fraud. These years likely prompted either regulatory or internal structural reforms. In contrast, the years 2020 to 2022, despite the effects of the pandemic and ongoing compliance with IndAS, did not see any governance developments, perhaps due to stabilisation efforts or a lack of compelling triggers. Overall, it appears that corporate governance at Reliance

Table 29Model fit statistics summary of Tata Sons.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ², p-value)
Model 1 (IndAS)	-4.29	12.58	13.18	11.91	70 %	5.287 (0.0711)
Model 2 (Pandemic)	-4.24	12.48	13.08	11.81	90 %	5.386 (0.0677)
Model 3 (SF)	-2.44e-08	4.00	4.61	3.34	100 %	13.863 (0.0010)
Model 4 (ECG)	-4.36	12.73	13.33	12.06	70 %	5.135 (0.0767)

Table 30 Comparative analysis impairment losses (Ind AS 36).

Year	RoE	RoCE	IndAS	Pandemic	Suspected Fraud	Emergence of Corporate Governance
2016	2.02	0.84	0	0	0	0
2017	-4.91	0.63	0	0	0	0
2018	-856.59	0.8	1	0	1	1
2019	0	-28.88	1	0	1	1
2020	-88.6	1.13	1	1	0	0
2021	0	0.29	1	1	0	0
2022	0	0.31	1	1	0	0
2023	0	0.17	1	0	1	1
2024	0	0.08	1	0	1	1

Source: Author's calculated (http://www.relianceada.com/reliance-communications).

Table 31
Suspected fraud analysis of reliance communications.

Year	RoE	RoCE	Rule 1 (RoE < -100)	Rule 2 (ΔRoCE < -20)	Rule 3 (3+ yrs RoE = 0)	Fraud_Suspected
2016	2.02	0.84	0	-	0	0
2017	-4.91	0.63	0	$egin{array}{l} \Delta = \ -0.21 \end{array}$	0	0
2018	-856.59	0.80	1	$\begin{array}{l} \Delta = \\ +0.17 \end{array}$	0	1
2019	0	-28.88	0	$\Delta = -29.68$	0	1
2020	-88.60	1.13	0	$\Delta = +30.01$	0	0
2021	0	0.29	0	$\Delta = -0.84$	0	0
2022	0	0.31	0	$egin{array}{c} \Delta = \ +0.02 \end{array}$	0	0
2023	0	0.17	0	$\Delta = -0.14$	1 (3 yrs RoE = 0)	1
2024	0	0.08	0	$\Delta = -0.09$	1 (4 yrs RoE = 0)	1

Source: Author's Compiled.

Communications is reactive, primarily influenced by crises, such as fraud and significant losses, rather than being driven by proactive growth or compliance initiatives.

Table 32 indicates possible fraud at Reliance Communications for the years 2018, 2019, 2023, and 2024. In 2018, a significant drop in the Return on Equity (RoE) triggered Rule 1, as it fell below –100 %. In 2019, Rule 2 was activated due to a decline in Return on Capital Employed (RoCE) exceeding 20 %. Subsequently, in 2023 and 2024, Rule 3 was applied because RoE remained at zero for over three consecutive years. These patterns indicate financial instability and raise

concerns about potential misreporting or governance issues.

The T-test results in Table 33 show that RoE and RoCE are not statistically significant (p>0.05), indicating no substantial deviation from the test value. However, IndAS, Pandemic, Suspected Fraud, and Emergence of Corporate Governance are all highly significant (p=0.000), with negative t-values, confirming substantial deviations from the mean. This suggests that these factors had a statistically significant impact on Reliance Communication's performance and reporting practices during the observed period, reflecting central governance and operational concerns.

Table 34 presents the multinomial logit results for Reliance Communications, indicating that return on equity (RoE) has a significant impact on all four models. The data indicate a negative impact of RoE on IndAS adoption, suspected fraud, and corporate governance development (p < 0.05), suggesting that low equity returns contribute to heightened financial disclosure reforms and governance challenges. Furthermore, RoCE significantly influences suspected fraud and governance (p = 0.0179), indicating that diminished capital efficiency escalates concerns and spurs governance responses [40]. These results highlight the impact of financial pressure on driving regulatory and ethical adjustments in 2016.

Table 35 illustrates that Models 3 and 4 (Suspected Fraud and Corporate Governance) provide the best fit, characterised by the lowest AIC, BIC, and HQ values, along with the highest prediction accuracy rates at 77.8 %. Their likelihood ratio tests are statistically significant (p = 0.0261), indicating robust explanatory power. In contrast, models 1 and 2 display weaker fits and inferior prediction accuracy, suggesting they are less effective in elucidating the adoption of IndAS and the pandemic's impacts on Reliance Communications.

4.6. Jet airways - related party disclosures (Ind AS 24)

The lack of data for Jet Airways post-2018 largely stems from the company's significant financial turmoil, which resulted in the halt of its operations in April 2019. Jet Airways struggled with an escalating debt burden, rising operational costs, fierce market competition, and decreasing revenues. As a result, the company failed to meet its obligations to lenders, employees, and vendors. These financial challenges

Table 32Descriptive analysis of reliance communication.

Descriptive Statistics								
	N	Mean	Std. Deviation	Skewness	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error	
RoE	9	-105.3422	283.229	-2.942	.717	8.722	1.400	
RoCE	9	-2.7367	9.80998	-2.993	.717	8.967	1.400	
IndAS	9	.78	.441	-1.620	.717	.735	1.400	
Pandemic	9	.33	.500	.857	.717	-1.714	1.400	
Suspected_fraud	9	.44	.527	.271	.717	-2.571	1.400	
Emergence_Corporate_Governance	9	.44	.527	.271	.717	-2.571	1.400	
Valid N (listwise)	9							

Source: Through SPSS compiled by the Author.

Table 33 T-Test analysis of reliance communication.

One-Sample Test								
	Test Value = 2.306							
	t	df	Sig. (2-tailed)	Mean Difference	95 % Confidence	Interval of the Difference		
					Lower	Upper		
RoE	-1.140	8	.287	-107.64822	-325.3577	110.0613		
RoCE	-1.542	8	.162	-5.04267	-12.5833	2.4979		
IndAS	-10.397	8	.000	-1.528	-1.87	-1.19		
Pandemic	-11.836	8	.000	-1.973	-2.36	-1.59		
Suspected fraud	-10.596	8	.000	-1.862	-2.27	-1.46		
Emergence Corporate Governance	-10.596	8	.000	-1.862	-2.27	-1.46		

Table 34 Combined multinomial logit model estimation results (2016–2024).

Variable	Model 1: IndAS(β, p- value)	Model 2: Pandemic Impact(β, p- value)	Model 3: Suspected Fraud(β, p- value)	Model 4: Emergence of Corporate Governance(β, p- value)
RoE	0.0586, 0.0195	0.0036, 0.0201	-0.0122, 0.0038	-0.0122, 0.0038
RoCE	0.9898, 0.5145	0.2045, 0.4684	-4.9000, 0.0179	-4.9000, 0.0179

Source: Author's Compiled.

ultimately led Jet Airways to enter insolvency proceedings under the Insolvency and Bankruptcy Code (IBC), 2016.

After 2018, Jet Airways ceased regular publication of its financial statements, attributed to the suspension of operations, ongoing legal struggles, and the insolvency resolution process. Therefore, information regarding its financial performance, such as operating cash flow, debtequity ratio, and profitability, is unavailable after 2018.

Table 36 illustrates that Jet Airways experienced considerable financial instability from 2009 to 2018, marked by inconsistent growth in Operating Cash Flow (OCF) and negative debt-to-equity ratios. There were indications of fraud in six out of ten years, especially during periods of low profitability and high debt. Although there were early responses to corporate governance issues, the implementation of Ind AS did not occur until 2017. Improvements in governance typically align with fraud detection, suggesting a reactive approach to compliance with financial and ethical standards rather than a proactive one.

Table 37 presents the fraud detection analysis of Jet Airways from 2009 to 2018, utilising qualitative, rule-based indicators from forensic accounting, such as the Beneish M-Score. This analysis reveals troubling patterns, including red flags such as a notable rise in operating profit margins accompanied by negative or erratic cash flows, as well as highly atypical debt-to-equity ratios in certain years. Specifically, the years 2009, 2010, 2011, 2013, 2016, and 2017 showed combinations of these red flags, suggesting possible earnings manipulation. These findings underscore discrepancies between reported profitability and financial health. While these patterns do not provide conclusive evidence of fraud, they warrant a comprehensive forensic investigation to determine possible misreporting.

Table 36Comparative analysis of jet airways with related party disclosures.

					•	
Year	Growth of OCF	D/E Ratio	OPM (%)	Suspected Fraud	Ind AS	Enhanced Corporate Governance
2009	-194.7	49.69	-3.51	1	0	1
2010	488.81	-167.2	12.25	1	0	1
2011	3.66	-68.33	12.77	1	0	1
2012	32.62	-6.37	2.01	0	0	0
2013	-18.01	-3.65	6.62	1	0	1
2014	-46.22	-1.94	-7.61	0	0	0
2015	-26.71	-1.54	1.61	0	0	0
2016	238.87	-1.67	13.21	1	0	1
2017	-59.5	-1.11	13.11	1	1	1
2018	68.14	-0.74	3.04	0	1	0

Source: Author's calculations with company annual reports (https://www.jetairways.com).

Table 37 Suspected fraud detection.

Year	Growth of OCF	D/E Ratio	OPM (%)	Suspected Fraud (Y/N)?	Remarks
2009	-194.7	49.69	-3.51	Yes	Very high D/E, poor margins, significant OCF drop
2010	488.81	-167.2	12.25	Yes	Extreme D/E swing, sudden huge OCF spike
2011	3.66	-68.33	12.77	Yes	High profit margin with flat OCF
2012	32.62	-6.37	2.01	No	Relatively normal
2013	-18.01	-3.65	6.62	Yes	Positive margin but negative OCF.
2014	-46.22	-1.94	-7.61	No	Loss and negative OCF, expected
2015	-26.71	-1.54	1.61	No	Low all around
2016	238.87	-1.67	13.21	Yes	High OCF growth and margin, but flat D/E
2017	-59.5	-1.11	13.11	Yes	Huge margin, declining cash
2018	68.14	-0.74	3.04	No	Moderate values

Source: Author's Compiled.

Table 35Model fit statistics summary.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ², p-value)
Model 1: IndAS	-4.1027	12.2054	12.5999	11.3542	55.6 % (5/9)	4.271, 0.1182
Model 2: Pandemic	-5.0682	14.1363	14.5308	13.2851	44.4 % (4/9)	2.340, 0.3103
Model 3: Suspected Fraud	-2.5926	9.1852	9.5796	8.3340	77.8 % (7/9)	7.291, 0.0261
Model 4: Corporate Governance	-2.5926	9.1852	9.5796	8.3340	77.8 % (7/9)	7.291, 0.0261

Table 38Descriptive analysis of jet airways.

Descriptive Statistics							
	N	N Mean Std. Deviation		Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Growth OCF	10	48.6960	189.33334	1.530	.687	2.898	1.334
Debt / Equity	10	-20.2860	58.73037	-1.987	.687	4.758	1.334
Operating PM	10	5.3500	7.47750	-0.426	.687	-1.026	1.334
Suspected Fraud	10	.60	.516	-0.484	.687	-2.277	1.334
IndAS	10	.20	.422	1.779	.687	1.406	1.334
Enhanced Corporate Governance	10	.60	.516	-0.484	.687	-2.277	1.334
Valid N (list wise)	10						

4.6.1. Enhanced corporate governance

Jet Airways needed to implement stronger corporate governance from 2009 to 2017 to avert financial strain and enhance accountability. During these years, indications of earnings manipulation or misreporting risks were present, which better board oversight, robust internal audits, and compliance with corporate governance codes (like Clause 49 or SEBI LODR) could have addressed.

Table 38 presents a descriptive analysis of Jet Airways from 2009 to 2018, revealing considerable volatility in Operating Cash Flow (OCF), marked by a significant standard deviation of 189.33 and a positive skewness of 1.53, which indicates occasional sharp spikes. The average Debt-to-Equity ratio is significantly negative at -20.29, exhibiting high variability. Its skewness of -1.99 and kurtosis of 4.76 indicate extreme debt levels during certain years. The Operating Profit Margin (OPM) remains modest at a mean of 5.35 %. Fraud was suspected in 60 % of the years examined. The adoption of Ind AS was low at 20 %, whereas corporate governance practices improved in 60 % of the observed period, suggesting that these improvements were primarily motivated by financial or compliance pressures.

Table 39 presents the t-test results, demonstrating that there are no significant differences in Growth_OCF, Debt-Equity, and Operating Profit Margin about the test value, as their p-values exceed 0.05. On the other hand, the factors of Suspected Fraud, Ind AS adoption, and Corporate Governance measures show statistical significance (p = 0.000), indicating that these aspects substantially underperformed against the benchmark. This highlights Jet Airways' inadequate compliance and governance practices, which may stem from reactive responses to financial challenges or irregularities.

The multinomial logit model for Jet Airways (2009–2018), presented in Table 40, reveals limited statistical significance among the variables, indicating weak connections between financial metrics and governance actions. In Model 3, variables including Growth of Operating Cash Flow (OCF), Debt-Equity Ratio (DER), and Operating Profit Margin (OPM) display high p-values (above 0.36), showing a negligible effect on Ind AS adoption. Likewise, in Models 4 and 5, while OPM has a moderately strong positive coefficient ($\beta=0.3599$), its p-value of 0.1101 shows that

Table 40Combined multinomial logit model estimation results (2009–2018).

Variable	Model 3: IndAS (β, p- value)	Model 4: Suspected Fraud $<$ br $>$ (β , p-value)	Model 5: ECG (β, p-value)
Growth of OCF	0.0010, 0.8758	0.0135, 0.3575	0.0135, 0.3575
Debt-Equity Ratio (DER)	0.0170, 0.3601	-0.0230, 0.4424	-0.0230, 0.4424
Operating Profit Margin	-0.0134, 0.8896	0.3599, 0.1101	0.3599, 0.1101

Source: Author's Compiled.

it lacks statistical significance. This implies that profitability and financial structure had a minimal influence on fraud detection and the effectiveness of enhanced corporate governance measures. Overall, Jet Airways appears to have established governance and compliance mechanisms primarily in response to crises rather than proactively, based on its financial health and operational efficiency.

Table 41 illustrates that Models 4 and 5 (Suspected Fraud and Enhanced Corporate Governance) provide a better fit, as indicated by lower AIC, BIC, and HQ values, coupled with a higher correct prediction rate of 70 %. However, none of the models achieve statistical significance (p > 0.05), suggesting a limited ability to explain the governance or fraud outcomes at Jet Airways.

4.7. Vodafone idea – contingent liabilities (Ind AS 37)

From 2016 to 2024, Vodafone Idea experienced a notable increase in contingent liabilities, primarily due to regulatory dues and legal disputes, particularly following the Supreme Court's AGR ruling. The company adopted a transparent disclosure of these liabilities under Ind AS 37, recognising potential outflows without classifying them as provisions. This method enhanced clarity regarding financial risks while highlighting Vodafone Idea's ongoing legal and economic challenges,

Table 39 T-Test of Jet Airlines.

One-Sample Test		•	_			
	Test Value = 2	2.262				
	t	df	Sig. (2-tailed)	Mean Difference	95 % Confiden	ce Interval of the Difference
					Lower	Upper
Growth OCF	.776	9	.458	46.43400	-89.0069	181.8749
Debt/Equity	-1.214	9	.256	-22.54800	-64.5612	19.4652
Operating PM	1.306	9	.224	3.08800	-2.2611	8.4371
Suspected Fraud	-10.178	9	.000	-1.662	-2.03	-1.29
IndAS	-15.465	9	.000	-2.062	-2.36	-1.76
Enhanced Corporate Governance	-10.178	9	.000	-1.662	-2.03	-1.29

Source: Through SPSS compiled by the Author.

Table 41 Model fit statistics summary.

g-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ², p-value)
5.254	18.509	19.416	17.513	6/10 (60 %)	1.354, 0.716
l.161 l.161					5.541, 0.136 5.541, 0.136
ļ	.254	.254 18.509 .161 14.322	.254 18.509 19.416 .161 14.322 15.230	.254 18.509 19.416 17.513 .161 14.322 15.230 13.326	.254 18.509 19.416 17.513 6/10 (60 %) .161 14.322 15.230 13.326 7/10 (70 %)

Table 42Descriptive analysis of Vodafone Idea.

Year	Growth % % Contingent Liability	Debt/Equity Ratio	Interest Coverage Ratio	Suspected Fraud (1) / Not (0)	Pandemic	IndAS	Emergence of Corporate Governance
2016	0	1.59	3.33	0	0	0	0
2017	100	2.09	0.68	1	0	1	1
2018	0	2.09	-0.42	1	0	1	1
2019	31.93	1.82	-1.03	1	0	1	1
2020	-5.14	16.11	0.67	1	1	1	1
2021	37.16	-4.12	0.73	1	1	1	1
2022	-8.36	-3.08	0.77	1	1	1	1
2023	18.2	-18	-0.36	1	0	1	1
2004	-15.41	-1.99	-0.55	1	0	1	1

Source: Author's calculations with company annual reports (https://www.myvi.in).

particularly in addressing its substantial government dues [41].

Table 42's analysis of Vodafone Idea from 2016 to 2023 shows significant financial distress and governance changes. Rising contingent liabilities and fluctuating debt-to-equity ratios indicate instability, while low or negative interest coverage ratios reveal challenges in meeting debt obligations. Since 2017, suspicions of fraud have coincided with the implementation of Ind AS and improvements in governance, reflecting a reactive strategy. Financial pressure escalated during the pandemic (2020–2022), despite the ongoing implementation of governance frameworks. While there were periods of growth, the overall trend highlights financial vulnerability and compliance driven by necessity.

To evaluate possible fraud using financial indicators, the Fraud Indicators Heuristic (Rule-based logic), as shown in Table 43, is utilised. Important metrics include growth in contingent liabilities, the Debt/Equity Ratio, and the Interest Coverage Ratio, all as per Ind AS 37. A year is marked as potentially fraudulent (1) if any of the subsequent conditions are met: contingent liabilities increase by over 30 %, the Debt/Equity Ratio is negative or excessively skewed, or the Interest Coverage Ratio falls below a certain threshold.

4.7.1. Corporate governance

Vodafone Idea's corporate governance practices appear to be reactive, arising from financial alerts and regulatory pressures. Since 2017,

Table 43 Suspected fraud analysis.

Year	Growth % CL	D/E Ratio	ICR	Fraud Conditions Met?	Suspected Fraud (1/0)
2016	0	1.59	3.33	None	0
2017	100	2.09	0.68	High CL growth	1
2018	0	2.09	-0.42	Negative ICR	1
2019	31.93	1.82	-1.03	High CL,	1
				Negative ICR	
2020	-5.14	16.11	0.67	Abnormal D/E	1
2021	37.16	-4.12	0.73	High CL,	1
				Negative D/E	
2022	-8.36	-3.08	0.77	Negative D/E	1
2023	18.2	-18	-0.36	Negative D/E,	1
				ICR	
2004	-15.41	-1.99	-0.55	Negative D/E,	1
				ICR	

Source: Author's Compiled.

the company has demonstrated consistent compliance (rated as 1), likely due to the increasing presence of contingent liabilities, significant debt, and persistent indications of potential fraud. This shift suggests a strategic move towards governance reforms aimed at addressing stakeholder concerns and regulatory scrutiny, particularly following the adoption of Ind AS. In contrast, the year 2016 shows no indication of governance efforts (rated as 0) despite a relatively stable financial health. Thus, it seems that governance at Vodafone Idea is driven more by necessity than by a proactive commitment to corporate responsibility.

The analysis of Vodafone Idea in Table 44 reveals significant variability in contingent liability growth (mean = 17.60, SD = 35.84) and interest coverage (mean = 0.42), suggesting financial instability. The data shows a positive skew, indicating that there are frequent extreme values. Factors such as suspected fraud, Ind AS, and corporate governance exhibit high negative skewness and peaked kurtosis, indicating consistent reporting over the years. The ongoing indications of fraud and governance reforms underscore a reactive approach to compliance in the face of ongoing financial pressures.

Table 45 presents the t-test results for Vodafone Idea, showing that the interest coverage ratio (p=0.002), indications of fraud, the pandemic's impact, Ind AS adoption, and the enhancement of corporate governance (all with p=0.000) are statistically significant. This highlights noteworthy deviations from the expected value. The findings suggest that Vodafone Idea encountered financial difficulties, regulatory hurdles, and ongoing signs of fraud. In contrast, the increase in contingent liabilities and the debt-equity ratio did not exhibit statistical significance, indicating that these elements did not reliably influence the results.

The multinomial logit model (2015–2024) for Vodafone Idea, outlined in Table 46, reveals that none of the predictors across all assessed models are statistically significant (p-values > 0.05). The increase in contingent liabilities ($\beta=0.0485, p=0.1161$) demonstrates a moderate but insignificant correlation with suspected fraud, Ind AS, and ECG. Similarly, the debt-equity and interest coverage ratios exhibit weak effects. In conclusion, financial metrics had a negligible impact on changes in governance, fraud detection, or responses to the pandemic, suggesting that reforms were primarily driven by external pressures rather than internal financial factors

In Table 47, the financial predictors for Models 2, 5, 8, and 13—Growth in Contingent Liabilities, Debt/Equity Ratio, and Interest Coverage Ratio—are consistently statistically insignificant (p > 0.05).

Table 44Descriptive analysis of Vodafone Idea.

Descriptive Statistics							
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic Statistic		Std. Error	Statistic	Std. Error
Growth CL	9	17.5978	35.84388	1.723	.717	3.282	1.400
Debt / Equity	9	-0.3878	8.85421	-0.231	.717	2.866	1.400
Interest Coverage	9	.4244	1.28326	1.486	.717	3.090	1.400
Suspected Fraud	9	.89	.333	-3.000	.717	9.000	1.400
Pandemic	9	.33	.500	.857	.717	-1.714	1.400
IndAS	9	.89	.333	-3.000	.717	9.000	1.400
Emergence CG	9	.89	.333	-3.000	.717	9.000	1.400
Valid N (list wise)	9						

Table 45T-Test of Vodafone idea.

One-Sample T	est					
	Test Value	= 2.3	06			
	t	df	Sig. (2-tailed)	Mean Difference	95 % Confid Interval of t Difference	
					Lower	Upper
Growth CL	1.280	8	.236	15.29178	-12.2603	42.8438
Debt/Equity	-0.913	8	.388	-2.69378	-9.4997	4.1122
Interest Coverage	-4.399	8	.002	-1.88156	-2.8680	-0.8952
Suspected Fraud	-12.754	8	.000	-1.417	-1.67	-1.16
Pandemic	-11.836	8	.000	-1.973	-2.36	-1.59
IndAS	-12.754	8	.000	-1.417	-1.67	-1.16
Emergence CG	-12.754	8	.000	-1.417	-1.67	-1.16

Source: Through SPSS compiled by the Author.

Table 46 Combined multinomial logit model estimation results (2015–2024).

Variable	Model 13: ECG $\langle br \rangle$ (β , p-value)	Model 8: IndAS $\langle br \rangle$ (β , p-value)	Model 2: Suspected Fraud $\langle br \rangle$ (β , p-value)	Model 5: Pandemic Impact ⟨br⟩ (β, p-value)
Growth in Contingent Liability	0.0485, 0.1161	0.0485, 0.1161	0.0485, 0.1161	-0.0192, 0.4041
Debt/Equity	0.0215,	0.0215,	0.0215,	0.0702,
Ratio	0.8115	0.8115	0.8115	0.4920
Interest	-0.6240,	-0.6240,	-0.6240,	0.0565,
Coverage Ratio	0.2482	0.2482	0.2482	0.9171

Source: Author's Compiled.

While a weak positive correlation exists between growth in contingent liabilities and suspected fraud and compliance, it remains statistically insignificant across all models. Each model, except the one related to the pandemic (44.4 %), shows moderate overall predictive accuracy (66.7 %), highlighting the pandemic's impact as an external shock. In

conclusion, the results suggest that these financial ratios do not significantly account for IndAS compliance, governance emergence, or fraud detection, emphasising the likely greater impact of regulatory mandates compared to economic aspects.

4.8. SAIL (Steel Authority of India) - Asset depreciation (Ind AS 16)

The introduction of Ind AS 16 — Property, Plant, and Equipment — represented a significant change in the depreciation policy and accounting practices for assets among Indian companies, including Steel Authority of India Limited (SAIL). Before this standard, depreciation was primarily determined through fixed rates and prescribed schedules, in accordance with the Indian Generally Accepted Accounting Principles (GAAP). In contrast, Ind AS 16 brought a more flexible method, focusing on the componentisation of assets, aligning depreciation practices with the patterns of economic benefits, and requiring regular assessments of the useful life and residual value of assets.

Table 48 provides a comparative analysis of SAIL from 2016 to 2024, highlighting erratic net income growth characterised by significant declines in 2016, 2018, and 2023, often coinciding with suspected years of fraud. Despite a consistent application of Ind AS after 2017, improvements in governance (ECG) showed variability. The notably high depreciation and changing asset turnover indicate potential financial instability. Reports of fraud appear to align with discrepancies in asset efficiency and profit reporting, suggesting possible manipulation or mismanagement.

Table 49 shows a pattern of suspected fraud over several years, highlighting significant financial discrepancies. Suspicions arose in 2016, 2018, 2020, and 2023, coinciding with considerable warning signs like drastic net income drops (-292~% in 2016, -141.07~% in 2018, and -82.21~% in 2023) and unusually high depreciation and amortisation increases (40.15~% in 2020). The 2023 spike in the Fixed Asset Turnover Ratio to 62 suggests possible manipulation or reporting inconsistencies. These indicators support the need for forensic investigations and governance scrutiny to ensure accountability.

4.8.1. Corporate governance

The Emergence of Corporate Governance (ECG) happens in years when key governance indicators align, specifically, the lack of suspected fraud, the implementation of Ind AS, and improved financial metrics. ECG was evident in 2017, 2019, 2021, 2022, and 2024, which can be

Table 47
Model fit statistics summary.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ², p-value)
Model 13: ECG	-4.5196	15.0393	15.6310	13.7625	6 (66.7 %)	3.437 (0.3290)
Model 8: IndAS	-4.5196	15.0393	15.6310	13.7625	6 (66.7 %)	3.437 (0.3290)
Model 2: SF	-4.5196	15.0393	15.6310	13.7625	6 (66.7 %)	3.437 (0.3290)
Model 5: Pandemic	-5.3997	16.7994	17.3911	15.5226	4 (44.4 %)	1.677 (0.6420)

Table 48
Comparative analysis of SAIL (Steel Authority of India) - Asset depreciation (Ind AS 16).

Year	Fixed Asset Turnover Ratio	D&A Expense Growth %	Net Income Growth %	Suspected Fraud	Pandemic	Ind AS	ECG
2016	0.59	10.1	-292	1	0	0	0
2017	0.64	-8.38	-51.75	0	0	1	1
2018	0.77	24.27	-141.07	1	0	1	0
2019	0.87	7.68	239.31	0	0	1	1
2020	0.82	40.15	-25.32	1	1	1	0
2021	1.33	9.23	95.61	0	1	1	1
2022	0.86	4.2	195.22	0	1	1	1
2023	62	16.1	-82.21	1	0	1	0
2024	0.79	6.32	40.89	0	0	1	1

Source: Author's calculations with company annual reports(https://sail.co.in/en).

Table 49Suspected Fraud Analysis.

Year	FATR	FATR Justification	D&A Growth %	D&A Justification	Net Income Growth %	NI Justification	Suspected Fraud
2016	0.59	Normal	10.1	Acceptable (< 30 %)	-292	Large drop (> −200 %)	1
2017	0.64	Slight increase	-8.38	Moderate decrease	-51.75	Normal variation	0
2018	0.77	Slight increase	24.27	Acceptable	-141.07	Still a large drop	1
2019	0.87	Moderate increase	7.68	Acceptable	239.31	Recovery noted	0
2020	0.82	Stable	40.15	Sudden high jump >30 %	-25.32	Acceptable dip	1
2021	1.33	High but under the threshold	9.23	Acceptable	95.61	Good performance	0
2022	0.86	Drop but stable	4.2	Acceptable	195.22	High, but not anomalous	0
2023	62	Huge spike (> 50x)	16.1	Acceptable	-82.21	Large reversal	1
2024	0.79	Normal	6.32	Acceptable	40.89	Acceptable	0

Source: Author's Compiled.

Table 50Descriptive Statistics of SAIL (Steel Authority of India).

Descriptive Statistics							
	N Statistic	Mean	Std. Deviation	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FA_TOR	9	7.6300	20.38983	2.999	.717	8.997	1.400
DA_EG	9	12.1856	13.68333	.888	.717	1.677	1.400
NIG	9	-2.3689	166.35252	-0.166	.717	-0.204	1.400
Suspected Fraud	9	.44	.527	.271	.717	-2.571	1.400
Pandemic	9	.33	.500	.857	.717	-1.714	1.400
IndAS	9	.89	.333	-3.000	.717	9.000	1.400
ECG	9	.56	.527	-0.271	.717	-2.571	1.400
Valid N (listwise)	9						

Source: Through SPSS compiled by the Author.

attributed to better regulatory compliance, stable or increasing profitability, and fewer discrepancies. These years reflect an environment where governance aspects such as transparency, accounting standards, and ethical oversight likely encouraged organisational discipline. Conversely, ECG was absent in years characterised by high volatility, suspected fraud, or substantial income declines, highlighting that ECG is more likely to manifest when internal controls and financial integrity are effectively upheld.

Table 50 provides the descriptive statistics for SAIL, highlighting significant variability in financial metrics. The Fixed Asset Turnover Ratio, averaging 7.63, exhibits considerable skewness (2.999) and kurtosis (8.997), suggesting the presence of outliers and a non-normal distribution. Net Income Growth, with an average of –2.37, shows notable volatility, as evidenced by its high standard deviation. While the adoption of Ind AS is prevalent, averaging 0.89, cases of suspected fraud and ECG scores indicate moderate rates and an inconsistent impact of governance over the observed period.

Table 51 displays the T-test findings for SAIL, revealing no notable differences in the Fixed Asset Turnover Ratio, Depreciation & Amortisation growth, or Net Income Growth compared to the test value. Conversely, factors such as Suspected Fraud, Pandemic, Ind AS adoption, and Enhanced Corporate Governance (ECG) show statistical

Table 51
T-Test of SAIL (Steel Authority of India).

	Test Value = 2.306							
	t	df	Sig. (2- tailed)	Mean Difference	95 % Confide of the Differe			
					Lower	Upper		
FA_TOR	.783	8	.456	5.32400	-10.3490	20.9970		
DA_EG	2.166	8	.062	9.87956	-0.6384	20.3975		
NIG	-0.084	8	.935	-4.67489	-132.5448	123.1950		
Suspected Fraud	-10.596	8	.000	-1.862	-2.27	-1.46		
Pandemic	-11.836	8	.000	-1.973	-2.36	-1.59		
IndAS	-12.754	8	.000	-1.417	-1.67	-1.16		
ECG	-9.964	8	.000	-1.750	-2.16	-1.35		

Source: Through SPSS compiled by the Author.

significance (p < 0.001), reflecting significant deviations and implying that regulatory and external factors have a substantial impact on financial disclosures and governance practices.

Table 52 of the multinomial logit results indicates that financial

Table 52 Combined multinomial logit model estimation results (2016–2024).

Variable	Model 1: ECG (β, p-value)	Model 2: IndAS (β, p- value)	Model 3: SF (β, p-value)	Model 4: Pandemic Impact (β, p- value)
Fixed Asset Turnover D&A Expense Growth	10.3764, 0.0000 -22.6461, 0.0000	11.4622, 0.0000 0.0568, 0.2436	-5.78215, 0.0000 12.6803, 0.0000	-1.54315, 0.2363 0.06902, 0.1312
Net Income Growth	3.5726, 0.0000	0.0408, 0.0000	-1.99862, 0.0000	0.00833, 0.2200

variables have a significant impact on governance and reporting. A positive correlation exists between Fixed Asset Turnover and the adoption of ECG and IndAS, although it may impede the identification of suspected fraud. In contrast, an increase in depreciation hurts ECG, raising concerns about potential fraud. Net Income Growth supports both ECG and IndAS while concurrently reducing fraud levels. The pandemic's effect turned out to be statistically insignificant. In conclusion, asset efficiency and profitability strengthen governance, whereas inconsistent depreciation could signal potential fraud risks.

Table 53 displays the model fit statistics, indicating exceptional predictive accuracy (100 %) for ECG, IndAS, and Suspected Fraud, supported by low AIC/BIC values and notable likelihood ratio tests (p < 0.01). Conversely, the Pandemic Impact model demonstrates poorer performance, with an accuracy of 77.8 % and an insignificant p-value (0.2709), highlighting its limited explanatory capability.

5. Analysing and interpreting data: validation of data by objectives and empirical evidence

This section confirms the research objectives by providing empirical evidence derived from different Indian corporate case studies. Each objective is evaluated using distinct data points and their analysis, highlighting the significant influence of Indian Accounting Standards (Ind AS) on financial reporting, corporate governance, and investor protection.

Objective 1: Assess how Ind AS, with its potential to enhance the accuracy, transparency, and reliability of financial reports, can significantly reduce financial misreporting and foster a more transparent and reliable financial landscape.

This goal is robustly backed by empirical data from case studies involving IL&FS, Wipro, Yes Bank, and Reliance Communications. The introduction of specific Ind AS standards required companies to depict a more accurate and transparent financial status, effectively tackling previous cases of misreporting. The validation with data is presented in Table 54.

These cases illustrate that although Ind AS 1 at IL&FS encountered issues with intentional manipulation, other standards effectively improved transparency. For instance, Ind AS 115 at Wipro provided more accurate revenue reporting, Ind AS 109 at Yes Bank revealed significant asset quality problems, and Ind AS 36 at Reliance Communications enforced precise asset valuation. Together, they contributed to a more transparent and trustworthy financial reporting landscape.

Objective 2: Explore how Ind AS adoption can revolutionise corporate governance by enforcing stricter disclosure norms and accountability, and enhancing transparency and ethical behaviour.

The implementation of Ind AS has a significant impact on corporate

Table 55Validation with data (Objective 2).

Company	Applied Ind AS	Corporate Governance Impact
Jet Airways	Ind AS 24	Failing to disclose related party transactions significantly contributed to the financial collapse, underscoring the vital importance of strict compliance in governance.
Tata Sons	Ind AS 110	Mandatory consolidation eliminated off-balance- sheet liabilities, enhancing financial transparency for the group and bolstering governance oversight.
Vodafone Idea	Ind AS 37	The disclosure of contingent liabilities related to AGR dues, totalling ₹41,202 crore in 2019, increased transparency, informed stakeholders about potential risks, and fostered accountability.

Source: Author's Compiled.

Table 53 Model fit statistics summary.

Model	Log-Likelihood	AIC	BIC	HQ	Correct Predictions	Likelihood Ratio Test (χ², p-value)
ECG (Model 1)	-0.000024	6.0000	6.5917	4.7232	9 (100 %)	12.477 (0.0059)
Ind AS (Model 2)	-0.031	6.06	6.65	4.78	100 %	12.416 (0.0061)
Suspected Fraud (Model 3)	-0.0036	6.01	6.60	4.73	100 %	12.469 (0.0059)
Pandemic Impact (Model 4)	-4.281	14.56	15.15	13.29	77.8 %	3.914 (0.2709)

Source: Author's Compiled.

Table 54 Validation with data (Objective 1).

Company	Applied Ind AS	Financial Misreporting Identified	Impact of Ind AS
IL&FS	Ind AS 1	Management of liabilities, concealed debt, and exaggerated Current Ratio (rising from 7.4 % in 2017 to 318.2 % in 2024).	Mandatory reporting of actual financial status, despite ongoing irregularities caused by intentional manipulation.
Wipro	Ind AS 115	Revenue manipulation is regulated.	Revenue growth became more achievable and aligned with actual customer contracts, ensuring precise earnings recognition and accuracy.
Yes Bank	Ind AS 109	Exaggerated asset quality before Ind AS.	The recognition of NPAs surged significantly from $1.28~\%$ in 2018 to $16.8~\%$ in 2020 , indicating the actual condition of the assets.
Reliance Communications	Ind AS 36	Impairment losses had not been reported previously.	ROE decreased from 2.02 % in 2016 to -856.59 % in 2018 following the recognition of impairment, providing a true reflection of the economic situation.

governance by mandating increased disclosure and accountability, which fosters more ethical corporate conduct. This transformation is illustrated by various case studies, which show that specific Ind AS standards either necessitated enhanced transparency or revealed governance shortcomings. The validation with data is presented in Table 55.

The cases demonstrate that adhering to Ind AS 24 could have prevented governance issues at Jet Airways. Tata Sons' compliance with Ind AS 110 showcases proactive governance via consolidation. Vodafone Idea's Ind AS 37 disclosures highlighted substantial liabilities and enhanced accountability by explicitly defining emerging risks. These instances underscore the vital importance of Ind AS in promoting better disclosure and accountability, which ultimately leads to improved corporate governance.

Objective 3: Conduct a thorough analysis of the practical challenges businesses may face during the implementation of Ind AS, including system overhauls and employee training.

Implementing Ind AS presents significant practical challenges for businesses owing to its complexity and adherence to international standards. Frequent problems include difficulties in data handling, system integration, and ensuring adequate employee expertise, as demonstrated by the experiences of various companies.

5.1. Challenges identified across case studies

- a) Vodafone Idea experienced significant fluctuations in its contingent liability disclosures, which increased from zero in 2017 to ₹41,202 crore in 2019, per Ind AS 37. This suggests difficulties in consistently identifying, measuring, and reporting these complex items, indicating a need for substantial system upgrades and specialised training.
- b) Jet Airways encountered notable difficulties in reporting lease obligations and related-party disclosures following the adoption of Indian Accounting Standards (Ind AS). This highlights the challenges of modifying existing systems and training staff to comply with the rigorous demands of new standards, such as Ind AS 116 (Leases) and Ind AS 24 (Related Party Disclosures).
- c) Following the implementation of Ind AS 16, SAIL saw significant fluctuations in depreciation expenses, with a 40.15 % rise in the depreciation growth rate in 2020. This indicates difficulties in reassessing asset lifespans, adopting different depreciation methods, and achieving precise system calculations, all of which require considerable system enhancements and re-training of accounting staff.

These examples illustrate that effectively adopting Ind AS demands significant investment in IT infrastructure, restructuring financial processes, and comprehensive training initiatives. Such actions are crucial to bridging the knowledge gap and ensuring accurate data capture and reporting within the new framework.

Objective 4: Investigate how the adoption of Ind AS enhances investor protection by promoting transparency and ethical corporate behaviour.

The implementation of Ind AS significantly enhances investor safeguards by promoting increased transparency and encouraging ethical conduct among corporations, enabling investors to make more informed choices. This goal is supported by results seen in numerous companies, where disclosures required by Ind AS offered vital understanding of financial status and risks. The validation with data is presented in Table 56.

These examples collectively demonstrate that consistent and reliable reporting (Wipro), vital risk disclosures (Yes Bank, Vodafone Idea), or comprehensive transparency at the group level (Tata Sons) allow Ind AS

Table 56Validation with data (Objective 4).

Company	Investor Protection Outcome Post Ind AS
Wipro	Transparent revenue recognition methods boosted profitability by providing investors with reliable earnings data and reducing information asymmetry.
Yes Bank	The introduction of Ind AS 109 significantly emphasised NPA and provisioning data, improving investor awareness and risk perception, and allowing for accurate risk pricing.
Tata Sons	Under Ind AS 110, consolidated financial reporting increases reliability for investors by providing a comprehensive picture of group-level assets and liabilities, thereby minimising concealed risks.
Vodafone Idea	Disclosure of AGR-related contingent liabilities (under Ind AS 37) informed stakeholders of potential significant risks, enabling a more accurate assessment of the company's financial vulnerability.

Source: Author's Compiled.

to provide investors with timely and accurate information essential for protecting their interests and assessing corporate integrity.

Objective 5: Evaluate case studies of companies adopting Ind AS to reduce financial shenanigans and fraudulent reporting.

The analysis of various case studies shows that adopting Ind AS greatly helps diminish financial misconduct and fraudulent reporting. It achieves this by discouraging these activities and facilitating their detection. Relevant data can be found in Table 57.

Results from various companies highlight the significant impact of Ind AS. It has not only prevented revenue manipulation at Wipro and promoted accurate asset valuations at Reliance Communications and SAIL, but also uncovered hidden liabilities at Yes Bank and enabled transparent reporting at the group level for Tata Sons. Ind AS has emerged as a strong deterrent against various forms of financial misconduct. In situations like IL&FS and Jet Airways, where major issues arose, the principles of Ind AS provided a framework for detecting misreporting, thereby fostering greater accountability. This extensive empirical evidence reinforces the crucial role of Ind AS in promoting corporate accountability and reducing the likelihood of financial wrongdoing in India's corporate sector.

6. Hypothesis-wise validation

This study's validation of each hypothesis offers strong empirical insights into how Indian Accounting Standards (Ind AS) affect corporate

Table 57Validation with data (Objective 5).

Companies Covered	Evidence of Fraud Prevention/Exposure Post-Ind AS Implementation
IL&FS, Jet Airways, Wipro, Yes, Bank, Tata Sons, Vodafone Idea, Reliance Communications, SAIL	The introduction of Ind AS resulted in stricter disclosure requirements, including those concerning related parties at Jet Airways and contingent liabilities at Vodafone Idea. It required precise impairment reporting for companies like RCom and SAIL, ensured accurate revenue recognition at Wipro, necessitated the consolidation of subsidiaries such as Tata Sons, and uncovered concealed financial instruments and bad debts at Yes Bank. The trends in ratios observed post-Ind AS implementation, such as realistic nonperforming assets (NPAs), actual asset values, and stable revenues, consistently reflected enhanced financial discipline and integrity, making it significantly harder to hide fraudulent reporting.

financial reporting, governance, and operational efficiency.

Hypothesis 1 (H1): The adoption of Ind AS significantly reduces financial shenanigans by enhancing financial reporting accuracy, transparency, and accountability.

This hypothesis is widely accepted due to robust evidence from various case studies. For example, in the case of IL&FS, liabilities were misclassified, thereby inflating current ratios prior to the implementation of Ind AS. The roll-out of Ind AS 1 introduced stricter classification standards, which effectively reduced such misreporting. In a similar vein, Yes Bank experienced a significant increase in gross Non-Performing Assets (NPAs) following the enforcement of Ind AS 109, which required accurate asset classification, thereby revealing previously hidden bad loans. Additionally, Reliance Communications faced significant asset impairment disclosures under Ind AS 36, resulting in a marked decrease in Return on Equity (ROE), which accurately reflected the company's actual financial status. These examples strongly support H1 by illustrating how Ind AS has played a crucial role in uncovering and mitigating financial misstatements.

Hypothesis 0 (H0): There is no significant relationship between the adoption of Ind AS and the reduction of financial malfeasance in financial reporting.

This hypothesis was eventually dismissed. Evidence collected from different firms contradicts this null hypothesis, as each case consistently highlights the role of Ind AS in revealing discrepancies and improving reporting standards. The data-driven dismissal of H0 affirms that Ind AS significantly contributes to fostering financial integrity in corporate India

Hypothesis 2 (H2): Ind AS improves corporate governance and investor protection by enforcing stricter disclosure norms and ethical behaviour.

Compelling examples further support this hypothesis. The downfall of Jet Airways was partly linked to the failure to disclose related-party transactions, a problem that adherence to Ind AS 24 could have helped avoid. Conversely, Tata Sons benefited from Ind AS 110, which mandated the consolidation of subsidiaries, thus preventing the hiding of liabilities and enhancing governance practices. In a similar vein, Vodafone Idea's compliance with Ind AS 37 ensured complete transparency regarding substantial contingent liabilities, protecting investors from unexpected financial shocks. These cases illustrate that Ind AS not only enhances accounting accuracy but also promotes corporate ethics and strengthens investor confidence.

Hypothesis 3 (H3): Challenges in adopting Ind AS, such as system changes and employee training, negatively impact its implementation effectiveness.

The difficulties in implementing Ind AS, especially concerning system upgrades and employee training, were also noted. While the long-term advantages of Ind AS are clear, its rollout has faced challenges. For example, Vodafone Idea encountered inconsistent reporting of contingent liabilities and a heavier compliance load during the initial adoption phase. Jet Airways struggled with the implementation of new lease accounting and related party disclosure rules, resulting in operational strain during the transition. Similarly, SAIL saw a considerable rise in depreciation expenses after implementing Ind AS 16, underscoring the financial impact of accurate asset valuation. These instances demonstrate that while Ind AS enhances transparency, it also presents significant transitional hurdles that can influence short-term performance and compliance demands.

Hypothesis 4 (H4): Companies that successfully implement Ind AS experience fewer financial anomalies than those that do not.

This hypothesis was confirmed as well. Wipro exemplifies this by maintaining steady profit margins through accurate revenue recognition under Ind AS 115, effectively reducing financial discrepancies. Similarly, Yes Bank's proactive identification of asset quality problems after implementing Ind AS resulted in enhanced risk management practices and timely acknowledgement of NPAS. Tata Sons experienced greater consolidation and transparency, which lowered off-balance-sheet liabilities and encouraged financial discipline. These instances illustrate that companies that diligently adopt Ind AS are more likely to prevent irregularities and promote financial stability.

7. Validation of methodology

The methodology employed in this study is robust and well-suited for confirming the research objectives presented in Table 59.

The empirical analysis and case studies consistently support all alternative hypotheses while rejecting the null hypothesis. The implementation of Ind AS, inspired by IAS and IFRS principles, has played a crucial role in reducing financial misconduct, enhancing corporate governance, improving investor protection, and mitigating financial irregularities within the Indian corporate sector. However, the research also highlighted the practical obstacles faced during the transition, emphasising the need for effective implementation strategies and ongoing regulatory support. The comprehensive methodological framework used adds further credibility to these findings, firmly establishing Ind AS as an essential tool for enhancing financial transparency and boosting investor confidence in India.

8. Conclusion

The implementation of Indian Accounting Standards (Ind AS), which align with International Financial Reporting Standards (IFRS), signifies a pivotal change in the financial reporting framework of India. Thorough case studies involving IL&FS, Wipro, Yes Bank, Tata Sons, Reliance Communications, Jet Airways, Vodafone Idea, and SAIL illustrate how Ind AS has played a crucial role in improving financial transparency, accountability, and governance. Although the effectiveness varies from one company to another due to differences in compliance and governance culture, the overall results indicate a clear systemic transition towards enhanced financial integrity [42].

One significant outcome of adopting Ind AS is the reduced potential for financial manipulation, especially in areas susceptible to manipulation, like revenue recognition, inflated asset values, misclassified liabilities, and transactions with related parties. Standards such as Ind AS 115 (Revenue), Ind AS 109 (Financial Instruments), Ind AS 110 (Consolidation), and Ind AS 36 (Asset Impairment) have established strict compliance requirements, which have revealed previously hidden

Table 58 Final hypothesis validation summary.

Hypothesis	Status	Validation Source from Data
H1	Accepted	IL&FS, Yes Bank, Reliance Communications - Reduced misreporting post-Ind AS
H0	Rejected	Contradicted by data from all case studies
H2	Accepted	Jet Airways, Tata Sons, Vodafone Idea - Improved governance and investor protection
НЗ	Accepted	Vodafone Idea, Jet Airways, SAIL - Implementation challenges observed
H4	Accepted	Wipro, Yes Bank, Tata Sons - Fewer anomalies post-Ind AS adoption

Table 59 Validation of methodology.

Method Used	Validation	Remarks
Secondary Data (Annual Reports & Financial Statements)	Highly Appropriate	Reliable source for longitudinal analysis in corporate studies.
Stratified Sampling	Well Justified	Ensured sectoral representation covering Banking, Telecom, Airlines, IT, Infrastructure, and Manufacturing.
Descriptive Statistics	Suitable & Standard	Tracked changes in Mean, Median, Standard Deviation, Error margins, and Confidence Levels effectively.
Ratio Analysis	Industry Norm	Essential to examine financial stability, fraud risks, and operational performance.
Case Study Content Analysis	Strong Qualitative Insight	Provided company-specific evidence on how Ind AS corrected financial misreporting.

financial risks. For instance, Yes Bank experienced enhanced transparency following the implementation of Ind AS 109, which facilitated early identification of credit risk through Expected Credit Loss models. Wipro's strong compliance with Ind AS 115 resulted in clear revenue reporting, highlighting the positive effect of these standards on corporate behavior [43].

On the other hand, IL&FS and Reliance Communications illustrate the risks of mere compliance or reactive governance. Even after embracing Ind AS, financial misreporting continued due to inadequate enforcement and insufficient internal controls. This underscores the vital need to not just adopt standards but to also ensure their consistent and ethical application, bolstered by strong regulatory oversight and thorough auditing.

Another result is the increased confidence of investors and stakeholders. Consistent, comparable, and transparent financial reports, as mandated by Ind AS, empower external stakeholders — including investors, creditors, and regulators — to make better-informed decisions. Tata Sons and SAIL showcased how enhanced disclosure after adopting Ind AS provided a clearer understanding of their financial status, helping them manage challenges like the COVID-19 pandemic.

The situation with Vodafone Idea highlights a limitation. Although it has implemented several IFRS Standards, the statistically insignificant trends in fraud detection indicate that financial metrics by themselves do not adequately explain governance dynamics in complex or heavily regulated settings. This necessitates a hybrid evaluation framework that integrates financial indicators with qualitative measures, including board structure, ethics policies, and management integrity.

In summary, the implementation of Ind AS in India has significantly improved financial discipline, minimised chances of fraud, and aligned local practices with international standards. Major impacts include:

- a) 30 % decrease in opportunities for revenue manipulation resulting from more stringent recognition rules.
- b) A 25 % enhancement in asset valuation accuracy that minimises fraud from overstatement.
- c) 20 % reduction in concealed liabilities, attributed to Ind AS 109 and 110.
- d) Increased examination of related-party transactions (15 %) in accordance with Ind AS 24.
- e) Enhanced internal controls and increased audit oversight resulted in a further 10 % improvement in governance results.

Ind AS has become a potent preventive measure against financial misconduct; however, its effectiveness relies on the quality of its implementation, enforcement strategies, and ethical governance structures. For businesses, the significance of Ind AS extends beyond mere

compliance; it is essential for long-term sustainability, corporate trustworthiness, and maintaining global investor confidence. Future improvements should aim to incorporate real-time monitoring, bolster auditor independence, and foster proactive governance to maximise the advantages of this internationally recognised framework.

9. Suggestions

To further enhance the effectiveness of Ind AS in reducing financial misconduct and improving corporate governance, several key areas require targeted focus. Firstly, regulatory organisations like SEBI and ICAI must strengthen their enforcement mechanisms to ensure the consistent and ethical application of Ind AS, moving beyond basic compliance. A centralised real-time monitoring system could be established to detect anomalies and facilitate prompt corrective actions. Secondly, companies should implement internal training programs to enhance the skills of finance professionals, ensuring a thorough understanding of complex standards such as Ind AS 109 and 115 [44]. Thirdly, auditor independence needs to be bolstered with more stringent rotation policies and penalties for audit failures, thereby increasing credibility and trust. Fourth, a hybrid corporate governance evaluation framework is necessary—one that fuses quantitative financial data with qualitative metrics, such as board composition, ethical policies, and whistleblower protections. Lastly, companies should be motivated to adopt integrated reporting, which connects financial results with governance practices, thereby promoting comprehensive transparency. If these measures are effectively implemented, they can enable India to fully leverage the strategic advantages of Ind AS as a means for sustainable growth, enhanced investor confidence, and alignment with global best practices in financial reporting and corporate ethics.

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CRediT authorship contribution statement

Sunil Kumar: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The author states that there are no known financial or personal conflicts of interest that could have affected the research presented in this paper.

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Data availability

The data supporting this study's findings are publicly available from the sources noted in the text.

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