

# An Empirical Study on Consolidated and Standalone Financial Statements of Leading Steel Companies in India

Prathap T. M<sup>1</sup>, Dr. H. Rajashekar<sup>2</sup>

<sup>1</sup>Research Scholar, Department of Commerce, University of Mysore, Manasagangothri, Mysuru – 570006, Karnataka, India

<sup>2</sup>Senior Professor and Chairman, Department of Commerce, University of Mysore, Manasagangothri, Mysuru – 570006, Karnataka, India

## Abstract

The present study examines the differences between consolidated and standalone financial statements of selected steel companies in India and evaluates the impact of consolidated financial reporting on financial position and performance. The study is based on secondary data collected from the published annual reports of ten leading steel companies in India for the period from 2015–16 to 2024–25. The selected companies include JSW Steel, Tata Steel, Hindalco Industries, Jindal Steel & Power, NMDC, Jindal Stainless, SAIL, APL Apollo Tubes, Jindal Saw, and Sarda Energy & Minerals. The study adopts a descriptive and analytical research design using comparative statement analysis, ratio analysis, trend analysis, and percentage analysis. Financial ratios relating to profitability, liquidity, solvency, and efficiency were analysed to compare consolidated and standalone financial statements. Since the data were not normally distributed, the Wilcoxon Signed Rank Test was employed as a non-parametric statistical tool for hypothesis testing. Reliability analysis was also conducted, and the Cronbach's Alpha value of 0.856 indicated a high level of internal consistency among the selected variables.

The findings revealed significant differences between consolidated and standalone financial statements with respect to assets, liabilities, revenue, current assets, current liabilities, borrowings, and several financial ratios such as Quick Ratio, Debt–Equity Ratio, Asset Turnover Ratio, Return on Assets, and Interest Coverage Ratio. However, variables such as net profit, net cash flow, current ratio, return on equity, and net profit margin did not show statistically significant differences. The comparative analysis further indicated that consolidated financial statements consistently reported higher values for major financial variables due to the inclusion of subsidiary-level financial information and group-wide operations. The study concludes that consolidated financial statements provide a broader, more transparent, and comprehensive representation of the financial position and performance of selected steel companies in India compared to standalone financial statements.

**Keywords:** Consolidated Financial Statements, Standalone Financial Statements, Steel Industry, Financial Performance & Financial Position.

## 1. Introduction

The iron and steel industry is one of the most important sectors of the Indian economy, contributing signi-

ificantly to industrial growth, infrastructure development, exports, and employment generation. India is among the largest producers of crude steel in the world, with a strong presence of both public and private sector enterprises. Companies such as Tata Steel, JSW Steel, Hindalco Industries, and Steel Authority of India Limited (SAIL) have expanded their operations through subsidiaries, joint ventures, acquisitions, and multinational activities. Such expansion has increased the complexity of financial reporting and corporate group structures.

With the growth of diversified business operations, companies are required to prepare both standalone financial statements (SFS) and consolidated financial statements (CFS). Standalone financial statements present the financial position and performance of the parent entity alone, whereas consolidated financial statements provide a combined view of the parent company and its subsidiaries, associates, and joint ventures. Consolidated reporting is governed by Ind AS 110, which emphasizes the control-based consolidation framework.

The distinction between standalone and consolidated financial statements is particularly important in the steel industry because companies operate through multiple subsidiaries across different geographical and operational segments. Consolidated financial statements often report higher assets, liabilities, revenues, and borrowings due to inclusion of group-level financial information. Therefore, stakeholders such as investors, creditors, analysts, regulators, and policy makers require a clear understanding of the differences between standalone and consolidated reporting.

The present study attempts to empirically analyse the differences between consolidated and standalone financial statements of selected steel companies in India. The study also examines the impact of consolidated reporting on financial position and performance using comparative analysis, ratio analysis, and non-parametric statistical tools.

## 2. Review of Literature

A literature review constitutes a systematic and critical evaluation of existing scholarly works related to a specific research problem. It involves identifying, analysing, and synthesizing previous studies, theoretical perspectives, and empirical findings to establish the conceptual foundation of the research.

Extensive international research has examined the informational value and usefulness of consolidated financial statements in comparison with standalone financial statements. Niskanen et al. (1998) and Liljeblom & Majala (2003) found that consolidated earnings possess greater explanatory power for stock returns and investor decision-making than parent-only financial statements. Müller (2011) observed that both consolidated and standalone financial statements are value relevant, though their usefulness varies across markets and regulatory environments.

Sotti (2018) concluded that consolidated financial statements provide superior explanatory power due to inclusion of group-level financial information. Walker & Mack (1998) emphasized the role of accounting regulations in improving disclosure standards and consolidation practices. Duh & Cheng (2012) found that control-based consolidation under IFRS provides more relevant and transparent financial information compared to ownership-based consolidation.

Lin et al. (2020) demonstrated that ownership-based consolidation frameworks may allow exclusion of subsidiaries and earnings manipulation, whereas control-based consolidation improves reporting transparency. El-Fakki & Khalifa (2013) reported that IFRS 10 significantly improved consistency, comparability, and reliability in consolidated reporting.

Recent studies by Casajus et al. (2017), Sotti (2018), and Semenova (2024) focused on emerging issues relating to disclosure adequacy, goodwill valuation, and harmonization of consolidated reporting practices. Busari & Bagudo (2021) and Borowiec et al. (2023) found that consolidated financial statements provide greater decision-useful information in firms characterized by diversified corporate structures. However, empirical studies directly comparing consolidated and standalone financial statements in the Indian context remain limited, particularly in the iron and steel industry. This gap necessitates the present study.

### 3. Research Gap

The review of literature indicates that most international studies have focused on the value relevance, transparency, and usefulness of consolidated financial statements. In the Indian context, very limited studies have systematically compared consolidated and standalone financial statements, particularly in the iron and steel industry. Existing studies are largely general in nature and do not comprehensively analyse the differences in financial position, profitability, liquidity, solvency, and efficiency between the two reporting formats. Therefore, the present study attempts to fill this gap through an empirical analysis of selected steel companies in India.

### 4. Statement of the Problem

The preparation of both standalone and consolidated financial statements has become mandatory for companies having subsidiaries and associate entities. However, differences between these two forms of reporting may significantly affect the interpretation of financial performance and financial position. In the Indian steel industry, companies operate through diversified group structures, making consolidated reporting highly relevant for stakeholders. Despite the implementation of Ind AS 110, uncertainty still exists regarding whether consolidated statements provide a broader and more useful representation of corporate financial activities compared to standalone statements.

### 5. Objectives of the Study

1. To examine the differences between consolidated and standalone financial statements of selected steel companies in India.
2. To analyse and compare key financial ratios (profitability, liquidity, solvency, and efficiency) derived from consolidated and standalone financial statements.
3. To assess the impact of consolidated financial reporting on the financial position and performance of selected steel companies in India.

### 6. Hypotheses of the Study

#### Hypothesis 1

**H0<sub>1</sub>:** There is no significant difference between consolidated and standalone financial statements of selected steel companies in India.

**H1<sub>1</sub>:** There is a significant difference between consolidated and standalone financial statements of selected steel companies in India.

#### Hypothesis 2

**H0<sub>2</sub>:** There is no significant difference in profitability, liquidity, solvency, and efficiency ratios derived

from consolidated and standalone financial statements of selected steel companies.

**H1<sub>2</sub>:** There is a significant difference in profitability, liquidity, solvency, and efficiency ratios derived from consolidated and standalone financial statements of selected steel companies.

### **Hypothesis 3**

**H0<sub>3</sub>:** Consolidated financial reporting does not have a significant impact on the financial position and performance of selected steel companies in India.

**H1<sub>3</sub>:** Consolidated financial reporting has a significant impact on the financial position and performance of selected steel companies in India.

## **7. Scope of the Study**

The study focuses on the comparative analysis of consolidated and standalone financial statements of selected iron and steel companies in India. Ten leading companies were selected based on market capitalization and industry importance. The study covers a period of ten years from 2016–17 to 2025–26. It analyses important financial indicators such as assets, liabilities, revenue, borrowings, profitability, liquidity, solvency, and efficiency ratios derived from both standalone and consolidated financial statements.

## **8. Research Methodology**

The study adopts a descriptive and analytical research design to examine the differences between consolidated and standalone financial statements of selected steel companies in India. The study is entirely based on secondary data collected from annual reports, company websites, stock exchange filings, and authenticated financial databases. The sample consists of ten leading steel companies in India, namely JSW Steel, Tata Steel, Hindalco Industries, Jindal Steel & Power, NMDC, Jindal Stainless, SAIL, APL Apollo Tubes, Jindal Saw, and Sarda Energy & Minerals. The companies were selected using purposive sampling based on their highest market capitalization and industry significance.

The study covers a period of ten years from 2016–17 to 2025–26. Financial data relating to assets, liabilities, shareholders' equity, revenue, net profit, borrowings, current assets, current liabilities, and cash flows were collected from both standalone and consolidated financial statements.

The study employed comparative statement analysis, ratio analysis, trend analysis, and percentage analysis. Financial ratios relating to profitability, liquidity, solvency, and efficiency were computed for analysis. Reliability analysis was conducted using Cronbach's Alpha, and the obtained coefficient value of 0.856 indicated high internal consistency among the selected variables. Normality was tested using the Shapiro–Wilk and Kolmogorov–Smirnov tests, which revealed that the data were not normally distributed ( $p < 0.05$ ). Therefore, the Wilcoxon Signed Rank Test, a non-parametric statistical tool, was employed to examine the significance of differences between consolidated and standalone financial variables and ratios.

## **9. Data Analysis and Discussion**

### **9.1 Objective 1**

To examine the differences between consolidated and standalone financial statements of selected steel companies in India.

**Table 1: Wilcoxon Signed Rank Test Results**

Sl. No.	Variable Compared	Test Used	p-value	Decision	Interpretation
1	Asset	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant
2	Liability	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant
3	Revenue	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant
4	Net Profit	Wilcoxon Signed Rank Test	0.855	Accept Ho	Not Significant
5	Current Liability	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant
6	Current Asset	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant
7	Net Cash Flow	Wilcoxon Signed Rank Test	0.425	Accept Ho	Not Significant
8	Borrowings	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant

**Source:** Computed from SPSS Output

### Interpretation

Table 1 presents the results of the Wilcoxon Signed Rank Test conducted to examine the differences between consolidated and standalone financial statements of selected steel companies in India. Since the significance level (p-value) for assets, liabilities, revenue, current liabilities, current assets, and borrowings is less than 0.05, the null hypothesis is rejected for these variables. This indicates that statistically significant differences exist between consolidated and standalone financial statements with respect to these financial indicators.

The significant differences observed in assets and liabilities suggest that consolidated financial statements incorporate subsidiary-level financial resources and obligations, thereby presenting a broader representation of the financial position of the corporate group. Similarly, the significant variation in revenue indicates that consolidated reporting captures group-wide operational performance more comprehensively than standalone reporting. The significant differences in current assets, current liabilities, and borrowings further imply that consolidation materially affects liquidity position, working capital structure, and financing activities of the selected steel companies. However, the p-values for net profit (0.855) and net cash flow (0.425) are greater than the significance level of 0.05. Therefore, the null

hypothesis is accepted for these variables, indicating that no statistically significant differences exist between consolidated and standalone statements with respect to profitability and cash flow measures. Overall, the findings confirm that consolidated financial statements significantly differ from standalone financial statements in terms of major balance sheet and operational variables. Hence, consolidated financial reporting provides a broader and more comprehensive representation of the financial position and operational scale of selected steel companies in India.

### 9.2 Objective 2

To analyse and compare key financial ratios derived from consolidated and standalone financial statements.

**Table 2: Wilcoxon Signed Rank Test for Financial Ratios**

Sl. No.	Variable Compared	Test Used	p-value	Decision	Interpretation
1	Current Ratio	Wilcoxon Signed Rank Test	0.342	Accept Ho	Not Significant
2	Quick Ratio	Wilcoxon Signed Rank Test	0.007	Reject Ho	Significant
3	Debt/Equity Ratio	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant
4	Asset Turnover Ratio	Wilcoxon Signed Rank Test	0.001	Reject Ho	Significant
5	Return on Equity	Wilcoxon Signed Rank Test	0.675	Accept Ho	Not Significant
6	Return on Asset	Wilcoxon Signed Rank Test	0.002	Reject Ho	Significant
7	Net Profit Margin	Wilcoxon Signed Rank Test	0.425	Accept Ho	Not Significant
8	Interest Coverage Ratio	Wilcoxon Signed Rank Test	0.000	Reject Ho	Significant

**Source:** Computed from SPSS Output

### Interpretation

Table 2 presents the results of the Wilcoxon Signed Rank Test conducted to analyse and compare key financial ratios derived from consolidated and standalone financial statements of selected steel companies in India. The results indicate that the significance values (p-values) for Quick Ratio, Debt–Equity Ratio, Asset Turnover Ratio, Return on Assets, and Interest Coverage Ratio are less than the prescribed

significance level of 0.05. Therefore, the null hypothesis is rejected for these ratios, indicating statistically significant differences between consolidated and standalone financial statements with respect to liquidity, solvency, efficiency, and certain profitability measures.

The significant difference observed in the Quick Ratio suggests that consolidation materially influences the short-term liquidity position of the selected companies due to inclusion of subsidiary-level current assets and liabilities. Similarly, the significant variation in the Debt–Equity Ratio indicates that consolidated reporting substantially affects the capital structure and solvency position of the corporate group through inclusion of group borrowings and obligations.

The significant differences in Asset Turnover Ratio and Return on Assets demonstrate that consolidated financial statements alter the measurement of operational efficiency and asset utilization by incorporating subsidiary operations and group-level resources. Further, the statistically significant variation in the Interest Coverage Ratio indicates that consolidation has a considerable effect on the debt-servicing capacity and financial risk profile of the selected companies.

However, the p-values for Current Ratio (0.342), Return on Equity (0.675), and Net Profit Margin (0.425) are greater than 0.05. Hence, the null hypothesis is accepted for these ratios, indicating that no statistically significant differences exist between consolidated and standalone financial statements with respect to these measures. This implies that certain profitability and liquidity indicators remain relatively consistent across both reporting formats.

Overall, the findings reveal that consolidated financial statements significantly influence several important financial ratios relating to liquidity, solvency, efficiency, and financial risk. Therefore, consolidated reporting provides a broader and more comprehensive representation of the financial performance and financial structure of selected steel companies in India.

### 9.3 Objective 3

To assess the impact of consolidated financial reporting on the financial position and performance of selected steel companies in India.

**Table 3: Comparative Analysis of Average Financial Variables**

COMPANY	SFS_TA	CFS_TA	SFS_Rev	CFS_Rev	SFS_NP	CFS_NP	SFS_CL	CFS_CL	SFS_CA	CFS_CA	SFS_CF	CFS_CF	SFS BOROW	CFS BOROW
JSW Steel	131613	153103	88103	106317	6199	6956	34159	41395	43895	50160	874.1	1071.1	49961	64030
Tata Steel	177682	239647	90644	172650	12025	7965	45737	73145	38770	80920	-312.7	144	38233	90513
Hindalco	90126	188408	56356	156754	2528	6999.2	17933	54084	25586	68066	36.7	543.9	19204	61653
Jindal Steel	65414	83930	33375	39869	2435	1374	15615	18123	15775	18179	180.2	259	17530	30333
NMDC	31527	31688	15472	15497	5091	5048	4436	4462	18522	18249	-10.6	-10.5	1649	1649
Jindal Stainles	17313	18510	20807	21306	1058.3	1089.6	6188	6461	8434	8862	47.6	60.3	4644	5319
SAIL	119702	121746	75427	75403	1951	2126	37067	37155	41246	41385	13.7	12.6	38007	38023
APL Apollo	3131	4021	8229	10483	242.3	397.3	984.5	1334	1376.3	1990	30.2	36.8	497.8	746.4
Jindal Saw	14310	16175	10990	13064	694	538	2810	3055	6961	7911	35.3	36.4	4010	5837
Sarda Energy	3087	4856	2009	2825	342.2	369.3	280	599.8	1211.1	1529.8	2.3	-1.4	405.8	1599

**Source:** Compiled from Annual Reports of Selected Steel Companies

### Interpretation

The comparative analysis indicates that consolidated financial statements consistently report higher values of total assets, revenues, current assets, current liabilities, and borrowings compared to standalone financial statements. Companies such as Tata Steel, Hindalco, and JSW Steel exhibit substantial increases

in consolidated total assets and revenues, indicating that consolidation significantly enhances the reported scale of operations and financial strength.

The analysis further reveals variations in profitability measures between standalone and consolidated statements. While certain companies reported higher consolidated profits, others reported comparatively lower consolidated profits due to subsidiary-level expenses and group adjustments.

Overall, the findings indicate that consolidated financial statements provide a broader and more comprehensive representation of financial position and operational performance.

## 10. Major Findings

1. Significant differences exist between consolidated and standalone financial statements with respect to assets, liabilities, revenue, current assets, current liabilities, and borrowings.
2. Net profit and net cash flow did not show statistically significant differences between standalone and consolidated financial statements.
3. Significant differences were observed in Quick Ratio, Debt–Equity Ratio, Asset Turnover Ratio, Return on Assets, and Interest Coverage Ratio.
4. Current Ratio, Return on Equity, and Net Profit Margin did not exhibit statistically significant differences.
5. Consolidated financial statements consistently reported higher values for major financial variables compared to standalone financial statements.
6. Companies such as Tata Steel, Hindalco, and JSW Steel showed substantial increases in consolidated total assets and revenues.
7. Consolidated financial statements provide a broader and more comprehensive representation of financial position and operational performance.

## 11. Suggestions

1. Investors and financial analysts should rely more on consolidated financial statements while evaluating corporate groups.
2. Companies should enhance the quality and transparency of consolidated disclosures.
3. Regulatory authorities should strengthen disclosure requirements relating to subsidiaries and intra-group transactions.
4. Management should carefully monitor subsidiary-level financial performance.
5. Future studies may incorporate larger sample sizes, additional industries, and advanced statistical techniques.
6. Future research may examine the impact of consolidated reporting on stock market performance and corporate valuation.

## 12. Conclusion

The study examined the differences between consolidated and standalone financial statements of selected steel companies in India and assessed the impact of consolidated financial reporting on financial position and performance. Using comparative analysis, ratio analysis, and the Wilcoxon Signed Rank Test, the study identified significant differences between standalone and consolidated reporting formats.

The findings revealed that consolidated financial statements consistently reported higher values of assets, liabilities, revenues, current assets, current liabilities, and borrowings due to inclusion of subsidiary-level

financial information and group-wide operations. Significant differences were also observed in several financial ratios relating to liquidity, solvency, efficiency, and profitability.

The study concludes that consolidated financial reporting substantially influences the reported financial position and performance of selected steel companies in India. Consolidated financial statements provide a broader, more transparent, and comprehensive representation of corporate financial activities compared to standalone financial statements. Therefore, consolidated financial reporting plays an important role in improving the quality and usefulness of financial information for investors, creditors, analysts, and other stakeholders.

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