



## A Study of the Effect of Fair Value Measurement on the Financial Performances of Selected NSE-Listed Companies

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### Abstract

In recent years, fair value measurement has become an important concept in accounting terminology. A significant development has been observed when the measurement of assets and liabilities has been made through fair value while preparing the financial statement of an entity. The importance of which is entirely related to transparency, reliability, and comparability of the statements of affairs of business entities. The question of transparency in accounting arose as the number of stakeholders in business entities increased. In India, fair value measurement is based on Ind AS 113, and it has had an enormous impact on the financial performances of companies listed on the NSE. This paper dwells upon the fact regarding the impact of fair value measurement on financial performances of the top 12 NSE-listed companies of two sectors, namely, automobile and metal, by means of the Fair Value Index (FVI) and by content analysis technique to show the trend through the ratio of these two sectors and whether these companies' financial position has been improving by implementing FVM in their reporting. The data has been collected from secondary sources, and the research is basically an exploratory in nature. The results show that none of the companies under these two sectors perform very poorly after disclosures under FVM; rather, these companies are trying to improve their financial recording by implementing proper disclosures and nomenclatures.

**Keywords:** Fair Value Measurement; Financial Reporting; Fair Value Index; Ind AS 113; NSE

### Introduction

A crucial component of financial reporting that affects the reliability and transparency of financial statements is the measuring of financial instruments. Accounting standard setters consider that in today's changing corporate environment, reporting on economic realities is more important than summarising earlier transactions (Procházka, 2011). Fair Value Measurement (FVM), which has been widely implemented under several accounting standards such as the International Financial Reporting Standards (IFRS), U.S. Generally Accepted Accounting Principles (GAAP), and others, is one of the most discussed approaches in this regard. Fair value has revolutionised the valuation of financial assets and liabilities. It is defined as the amount that would be received to transfer a liability or received to sell an asset in an orderly transaction between market participants. Compared with traditional historical cost methodologies, fair value measurement provides a more dynamic and timely perspective of an organisation's financial health by reflecting the present situation of the market. Nevertheless, because market prices change over time, this approach also adds a certain amount of volatility. Concerns over this intrinsic volatility's effect on financial performance are brought up, especially with regard to profitability, earnings stability, and investor decision-making.

Whereas in India, since the Companies Act, 2013 came into force, it has become extremely essential to upgrade the Accounting Standards of India to align with the global accounting standards (IFRS). Many countries fully adopt IFRS into their accounting standards and consider implementing them in accordance with IASB and IFRS norms and guidelines. India aligned their own Accounting Standards (AS) with IFRS and introduced Ind AS, a global accounting language. Given the importance of fair value measurement (FVM), India began implementing FVM. In India, Ind AS 113 becomes mandatorily applicable from 1st April, 2016 for all companies in a phase-wise manner. It is a method used in financial accounting to ascertain the value of an asset or liability by considering the price it would command in a transaction between knowledgeable, willing parties in an open and unrestricted market. This approach aims to provide a more accurate representation of an entity's financial position, offering transparency and relevance in financial reporting. Various studies, including Rakshit & Chatterjee (2008), Sambaru & Kavitha (2014), Chandrashekar & Kumar (2017), Chakravorty & Bhattacharya (2021), and others, have examined the influence and implementation of Fair Value Measurement (FVM). Dawad, Khlaif, & Wahhab, (2022) demonstrated the role of fair value measurement in improving the transparency of financial reporting and its application in Iraqi companies. Fair value measurements are categorised into a three-level hierarchy based on the type of inputs to the valuation techniques used, as follows (Claessen, 2021): Level 1 inputs are based on quoted market prices, which are easily available in the markets. Level 2 inputs are inputs other than the quoted prices determined in Level 1 that are directly or indirectly observable for that asset or liability. For example, interest rates, credit spreads, or yield curves. Finally, level 3 inputs are unobservable inputs where information is not readily available, and for that purpose, it requires significant judgement and estimation. For example, mortgage-backed securities (MBS), private equity stocks, etc. In this backdrop, this paper dwells upon the fact regarding the impact of fair value measurement on the financial performances of the top 12 NSE-listed companies of two sectors, namely, automobile and metal, where it defines how these companies perform if financial reporting has been made mandatorily on the basis of FVM through the Fair Value Index (FVI) and by content analysis to show the trend by means of the ratio of these two sectors and whether these companies' financial position has been improving by implementing FVM in their reporting.

### Literature Review

Although fair value measurement (FVM) is relatively a new area in accounting, still a good number of research has been conducted in this field. Some of the summaries of those researches are presented below:

Carneiro Holanda & Magnusson (2015) studied on top real estate companies in the European regions regarding investment, plant property, and equipment valuation on fair value measurement by means of the Fair Value Disclosure Index as per IFRS 13. Researchers conducted the study using primary, auxiliary, and mandatory criteria. The results show a significant development in fair value disclosure principles in financial reporting than previously measured traditional approaches, although some companies also didn't adopt IFRS 13 totally in their reporting. Chadda & Vardia (2020) analysed the degree of adaptability of the fair value concept as codified in IFRS and in Ind AS. India's top 20 real estate companies have been considered as a sample size and examined the companies' incentives to choose fair value over historical cost by analysing cross-sectional variation in valuation practices. It has further elucidated whether and why the companies prefer fair value over historical cost and to what extent they choose between the two valuation methods. Abiahu, Udeh, & Okegbe (2020) examined the effect of fair value accounting and reporting on financial profitability and firm value on money deposits in banks listed on the Nigerian Stock Exchange. A sample survey has been conducted on the basis of secondary data availability of 13 quoted banks in the stock exchange over a period of 4 years consisting of pre-IFRS and post-IFRS adoption. A descriptive analysis has been conducted through a statistical tool, and the results show that fair value reporting doesn't significantly affect reported profitability. The study even suggests that the banks should adopt a hybrid approach (i.e., a mixture of both fair value and historical value) in their reporting activity to reflect actual value creation. Salehuddin, Ibrahim, & Yusoff, (2021) examined fair value measurement on biological assets especially on agricultural sector with reference to IAS 41. The main goal was to find out the current practices of Fair Value Measurement

and also to explore whether minimum production cost and social elements will influence fair value measurement. It also suggested that, as it is a superior method of smart farming, hence, it requires further analysis with different type of biological asset to adopt Technology Acceptance Model (TAM). Claessen, (2021) attempted to provide an overview of fair value disclosure practices especially for level 3 disclosure, its relevance in IFRS 13. After data analysis, the results show that disclosure of level 3 inputs requires subjective judgement as it basically focuses upon assumptions and also it is highly relevant as some items requires subjective judgement as the information are not readily available for disclosure principles as per IFRS 13 across the globe.

### Research Gap

Based on the above literature review, the following research gaps have been identified:

- i. An overall preview has been given on fair value measurement in most of the studies, but these did not explain the impact of existing valuation methods like historical cost method, current fair value method, etc. in a comparative study manner.
- ii. The studies were limited with their concepts and the pros and cons of fair value measurement, but the analysis of its implementations, applications, and drawbacks in India with respect to Ind AS has not been considered properly.

### Objective of the Study

The objectives of the study are to dwell upon two factors:

- i. To find out the impact of fair value measurement by means of Fair Value Index (FVI) of top 12 NSE Listed Companies in Automobile and Metal Sector.
- ii. To show by means of content analysis technique, the trend of financial performances of these two sectors through ratio analysis.

### Methodology

The present study is performed on the basis of the top 12 NSE-listed companies in the automobile and metal sectors. The data has been collected from secondary sources, mainly annual reports of the companies, articles, web-based journals, etc. The data has been collected and summarised by means of market capitalisation (accessed on 15<sup>th</sup> May, 2024). This study used content analysis techniques to obtain the data from annual reports from 2016-17 to 2022-23 of these two sectors. On the basis of the collected data, the Fair Value Index (FVI) has been computed. Carneiro Holanda & Magnusson (2015), McDonough, Panaretou, & Shakespeare (2020), Nguyen (2021) all in their study explained fair value disclosure practices in terms of IFRS 13 and Ind AS 113. FVI is computed by using a simple formula:

$$FVI = \frac{\text{Total Value of the actual information revealed by a company}}{\text{Maximum Value of information to be revealed by that company}}$$

To obtain the results of financial performances, a trend analysis has been drawn on the basis of certain key financial ratios that have impacted directly or indirectly FVM.

### Results and Discussion

The Fair Value Index (FVI) is calculated on the basis of the above-mentioned formula. Amarnath (2017), Sunil, & Mahadevappa, (2023), Erfan, Ali, & Khan (2022) all in their studies highlighted fair value practices in India and across the globe by means of FVI disclosure principles. The numerator and denominator value have been considered on the basis of the under-mentioned criteria of the top 12 NSE-listed companies across 2 sectors. The values have been considered as 0 if the criteria have not been satisfied and as 1 if the criteria have been satisfied. Finally, the mean value has been calculated based on the criteria fulfilled from the above-mentioned approach to calculating the fair value index (FVI). Based on this approach, FVI has been calculated on the basis of at least 29 criteria out of these top 12 NSE-listed companies. These criteria also have been segregated mainly into 3 categories, (MCA

guidelines) namely the primary criteria (14 criteria), auxiliary criteria [3 types: A {3 criteria}, B {6 criteria}, and C {2 criteria}], and mandatory criteria (4 criteria). The value is calculated finally by calculating the mean of FVI. On the basis of this mean value, FVI is computed. The list of primary criteria has been mentioned below:

**Table 1: Primary Criteria (Minimum Information Revealed as per Ind AS 113)**

SR. No.	Criteria
1.	Fair value at the end of the accounting period for recurring as well as non-recurring measurement & the reason for valuation at fair value in case of non-recurring measurement.
2.	Fair value hierarchy in case of both recurring and non-recurring measurement (Level 1,2 or 3).
3.	Any transfer of inputs between level 1 or 2 and reason for such transfer.
4 A.	For valuation at fair value under level 1 or 2 inputs, a description of such valuation techniques used and if any changes require, the reason behind that change.
4 B.	Quantitative information about unobservable inputs used for level 3 category valuation.
4 C.	A separate reconciliation statement for recurring fair value measurement for level 3 category showing opening and closing balances need to be disclosed and if any changes occur, the reason for that change.
5 A.	Total gains or losses for the accounting period recorded in P/ L and the other line items where these gains or losses are recognised.
5 B.	Total gains or losses for the accounting period recorded in other comprehensive incomes and the other line items where these gains or losses in other comprehensive incomes are recognised.
5 C.	Purchases and sales related issues.
5 D.	In case of level 3 inputs, the amount of transfer, reason for transfer, time period for transfer to be mentioned. For level 3 category transfer of inputs, more emphasis must be given for separate disclosure.
6.	A thorough description of valuation process (i.e., type of valuation, time period of valuation, etc.) used by an organisation in case of level 3 category of inputs must be mentioned.
7.	A sensitivity analysis of fair value measurement to change in unobservable inputs for level 3 category has been measured to see the impact and any interrelation of fair value on level 3 inputs.
8.	If there is any difference between the highest & the best use and the carrying amount of the non-financial asset, the fact and the reason of the difference.
9.	Quantitative revelation of information in a tabulated format as per Ind ASs.

Sources: Authors' Own Segregation and Classification

Financial assets and liabilities measured at cost (except items mentioned as per Ind AS 107) are required to disclose the following information regarding fair value. This information is stated below:

**Table 2: Auxiliary Criteria [ A ]**

SR. No.	Criteria
1.	Fair value hierarchy (level 1,2 or 3) in which fair value measurement is fallen.
2.	For fair value valuation of level 2 or level 3 category of inputs, a description of fair value techniques for valuation, inputs used for valuation has to be mentioned and if any change in the valuation techniques, the reason for the change has to be mentioned.
3.	If there is any difference between the highest & the best use and the carrying amount of the non-financial asset, the fact and the reason of the difference.

Source: Authors' Own Segregation and Classification

In respect of share-based payments as per Ind AS 102, following criteria related to fair value measurement of the entities have to be fulfilled:

**Table 3: Auxiliary Criteria [B]**

SR. No.	Criteria
1.	An organisation must disclose how fair value is determined i.e., either market price method or any other methods while dealing with goods or services received directly during a particular period.
2 A.	An organisation must disclose how fair value is determined while dealing with goods or services received indirectly or any other medium. In case of share option, weighted average fair value of the option granted, models, assumptions, measurement dates and inputs used in the model has been mentioned properly.
2 B.	Determination of expected volatility. Explanation of expected volatility based on historical volatility, if any further measurement incorporated need to be mentioned.
2 C.	Except share options, how other equity instruments has been measured based upon fair value measurements of both observable or unobservable inputs.
2 D.	If any expected dividends have been incorporated while measuring at fair value.
2 E.	For modified share-based payments system, any further modifications have been incorporated or not, its measurement date, methods, techniques, increments have been granted or not need to be mentioned in details.

Sources: Authors' Own Segregation and Classification

According to Ind AS 19 Employee Benefits, a few details need to be revealed for employee benefits plans. These are as follows:

**Table 4: Auxiliary Criteria [C]**

SR. No.	Criteria
1.	There has to be a reconciliation statement consisting opening and closing balances of fair value of plan assets and there has to be an opening and closing balances of any reimbursement right considered/ recognised as an asset.
2.	Classification of investments in plan assets (either in terms of percentage or amount or any other method of computing the techniques of major categorical inputs)

Sources: Authors' Own Segregation and Classification

Ind AS 40 talks about investment property. In order to measure investment property at fair value, organizations must disclose certain mandatory information when dealing with Ind AS 40. These are as follows:

**Table 5: Mandatory Disclosures for organisations as per Ind AS 40**

SR. No.	Criteria
1.	Fair value of Investment Property.
2.	Fair Value Hierarchy.
3.	Valuation must be measured through an independent valuer who holds a degree from a recognised organisations or institutions for professional valuation.
4.	If fair value is not measured properly, reliably, the fact and reason for of that inability need to be mentioned.

Sources: Authors' Own Segregation and Classification

**Table 6: Fair Value Index (FVI) of Top NSE Listed Companies Across 2 Different Sectors from 2016-17 onwards**

SECTOR	COMPANY'S NAME	FINANCIAL YEARS						
		2022-23	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
Automobile	Mahindra & Mahindra Ltd.	0.76	0.76	0.69	0.69	0.69	0.41	0.41
	Tata Motors	0.79	0.79	0.76	0.76	0.76	0.48	0.48
	Maruti Suzuki	0.72	0.72	0.62	0.62	0.62	0.41	0.41
	Bajaj Auto	0.72	0.72	0.62	0.62	0.62	0.38	0.38
	Hero MotoCorp	0.52	0.52	0.45	0.45	0.45	0.34	0.34
	Eicher Motors	0.52	0.52	0.41	0.41	0.41	0.34	0.34
Metal	Tata Steel Ltd.	0.86	0.79	0.76	0.66	0.66	0.52	0.52
	Adani Enterprise Ltd.	0.66	0.62	0.62	0.55	0.52	0.45	0.41
	Hindalco Industries Ltd.	0.83	0.72	0.69	0.66	0.55	0.55	0.48
	JSW Steel	0.69	0.69	0.62	0.59	0.52	0.52	0.42
	Vedanta Ltd.	0.52	0.52	0.45	0.45	0.45	0.34	0.34
	Jindal Steel & Power Ltd.	0.72	0.69	0.66	0.59	0.48	0.41	0.41

Sources: Authors' Own Segregation and Classification

### Present Status of Fair Value Index (FVI) Adherence in Automobile Sector

After careful analysis of the fair value index (FVI) in the automobile sector, it has been found that none of the top 12 NSE-listed companies followed all the relevant disclosures while calculating fair value measurement in accounting. Most of the companies in this sector only fulfilled a maximum of 23 criteria out of 29 criteria in total in 2022–23. The disclosure of the companies increases more or less as the year progresses, starting from 2016-17 to 2022-23. The figures below show the trend of FVI in the automobile sector.

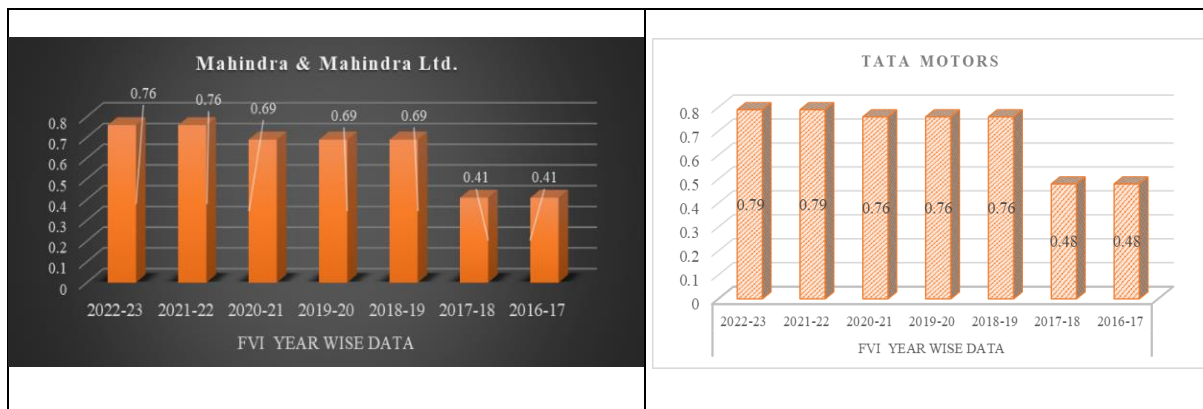




Figure 1: FVI of Select Companies of Automobile Sector (Sources: Authors' Own Segregation and Classification)

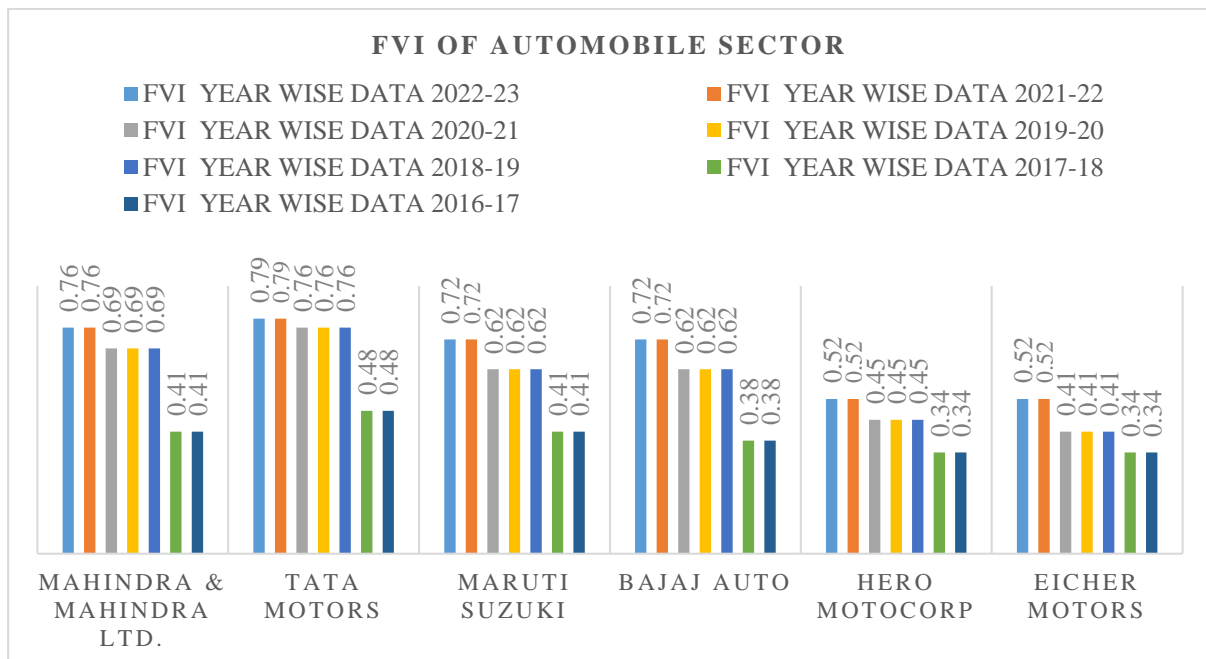


Figure 2: FVI of Automobile Sector (Sources: Authors' Own Segregation and Classification)

It has been noticed that, from all the above figures (figure 1 and figure 2), the FVI of the top 6 NSE-listed companies in the automobile sector has increased since the implementation. It depicts the rise and fall of FVI during the last 7 years of all the companies in financial reporting. In the first 2-3 initial years of its implementation, it has been seen that the companies were not sure regarding how to implement FVM in their reporting framework. After that, it started to improve year after year. But still, it has been noticed that all these Indian companies still didn't implement FVM fully in their annual reports.

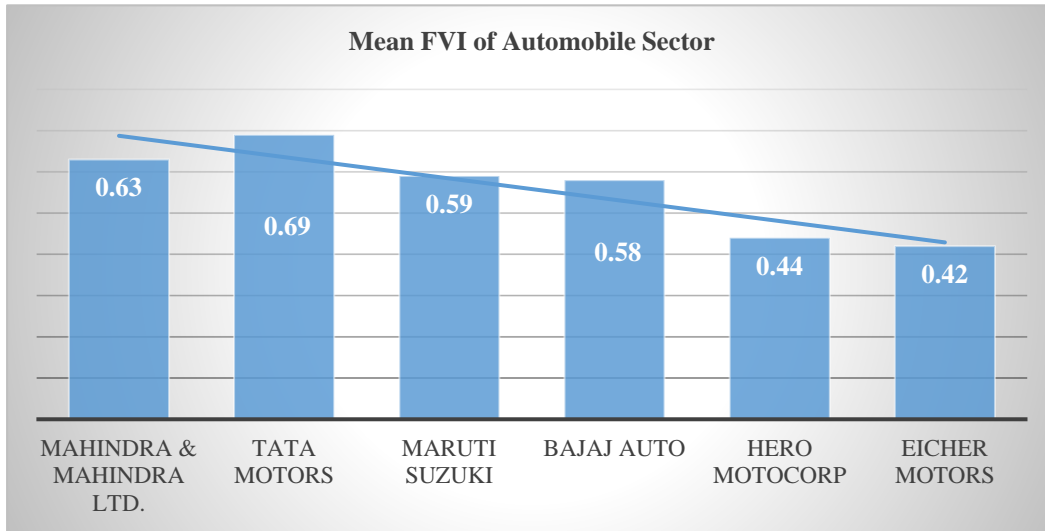
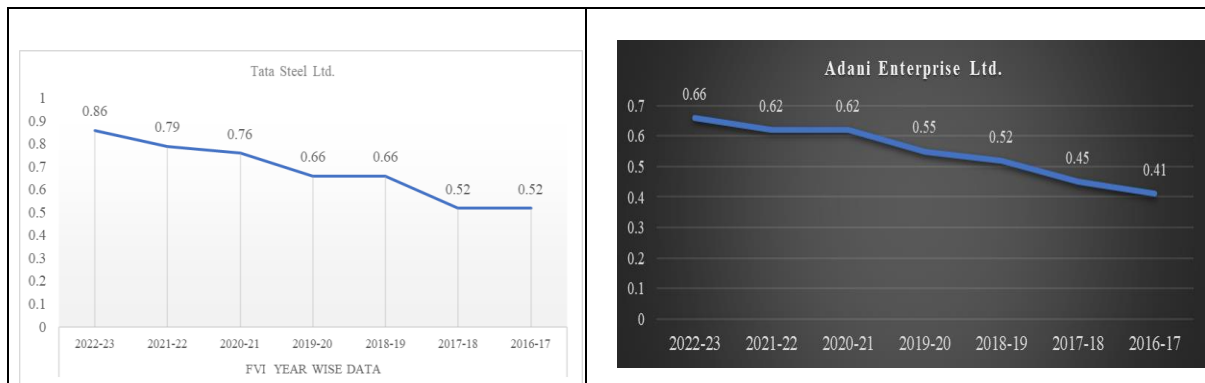


Figure 3: Mean FVI of Automobile Sector (Sources: Authors' Own Computation from Table 6)

Mean FVI has been calculated on the basis of averages of FVI of each company from where FVM has been implemented. Here, mean FVI has been calculated from 2016-17 onwards till 2022-23, i.e., 7 years, where every year's FVI has been added and finally divided by 7 years to get the desired result. From the above figure 3, it is seen that the mean FVI is highest in the case of Tata Motors (0.69) and lowest in the case of Eicher Motors (0.42), although as per the market capitalisation dated May 15, 2024, Mahindra & Mahindra Ltd. holds the highest share.

**Present Status of Fair Value Index (FVI) Adherence in Metal Sector**

One of the most powerful sectors in our economy is the metal sector. It boosts the Indian economy by providing top-notch facilities and contributes heavily to the development of the economy as well as for the country. In the metal sector, it has been noticed that none of the companies fully implement FVM in their financial reporting, although the processes of implementation have been started from 2016 onwards. Tata Steel Ltd. is the leader in this sector, as it fulfilled 25 criteria out of 29 in 2022–23. The disclosure of the companies increases more or less as the year progresses, starting from 2016-17 to 2022-23.





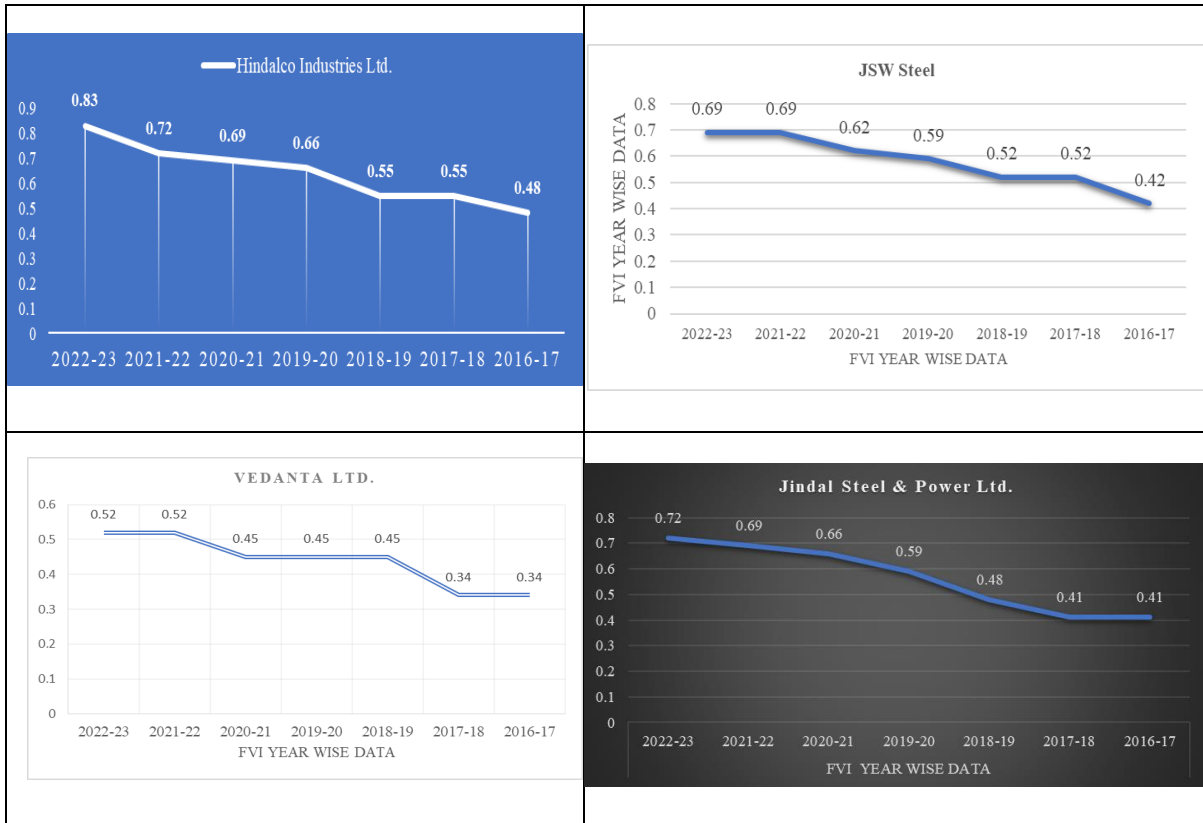


Figure 4: FVI of Select Companies of Metal Sector (Sources: Authors' Own Computation from Table 6)

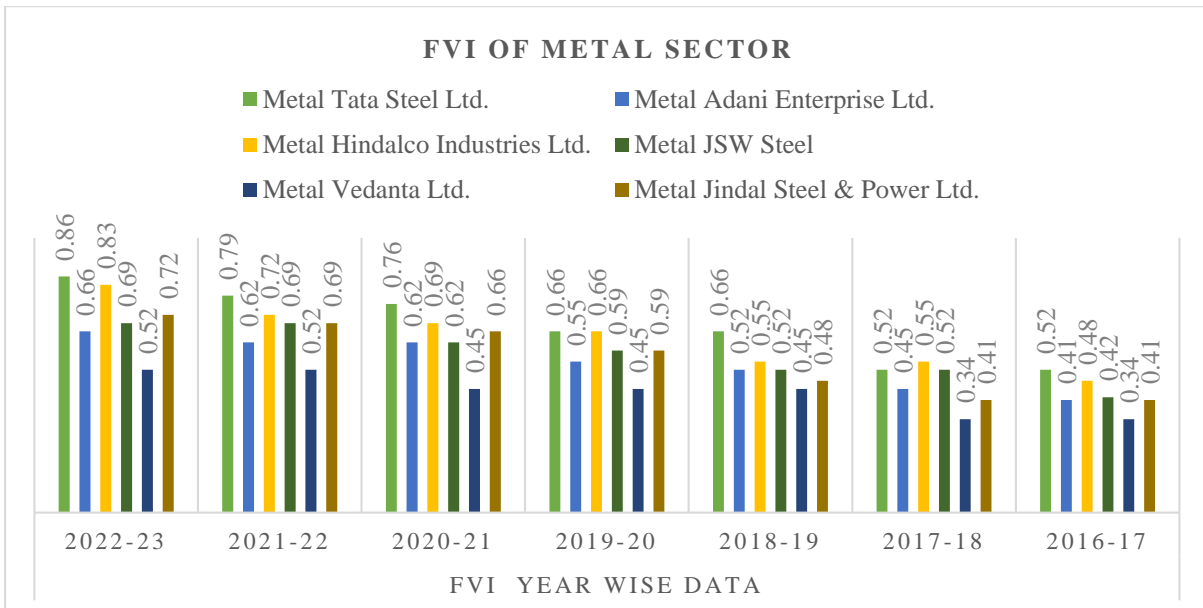
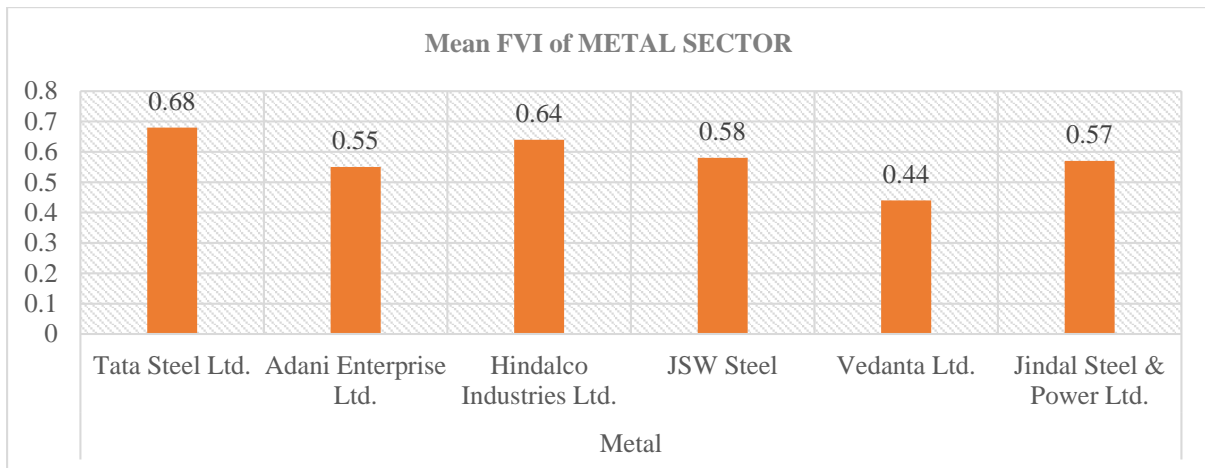


Figure 5: FVI of Metal Sector (Sources: Authors' Own Computation from Table 6)

It has been noticed that, from all the above figures (figure 4 and figure 5), the FVI of the metal sector of the top 6 NSE-listed companies has been shown, which depicts the rise and fall of the FVI of all the companies during their last 7 years of FVM implementation in financial reporting. It is also seen that, year by year, fair value disclosure has increased, and it shows a positive trend, which depicts India is moving towards full implementation of fair value measurement in the near future.



**Figure 6: Mean FVI of Metal Sector** (Sources: Authors' Own Computation from Table 6)

Mean FVI has been calculated on the basis of averages of FVI of each company from where FVM has been implemented. Here, mean FVI has been calculated from 2016-17 onwards till 2022-23, i.e., 7 years, where every year's FVI has been added and finally divided by 7 years to get the desired result. From the above figure 6, it is seen that Mean FVI is highest in case of Tata Steel Ltd. (0.68) and lowest in case of Vedanta Ltd. (0.44), although as per Market Capitalisation dated 15<sup>th</sup> May, 2024, Vedanta Ltd. holds a greater portion of market share than Jindal Steel & Power Ltd.

### Trend Analysis on the Impact of the Financial Performances of the Two Sectors by Few Financial Ratios

#### 1. Automobile Sector

**Table 7: Extracted Key Financial Ratios of Automobile Sector**

Company's Name	Key Financial Ratios	Financial Years						
		2023	2022	2021	2020	2019	2018	2017
<b>Mahindra &amp; Mahindra Ltd.</b>	Asset Turnover Ratio	0.0119	0.0091	0.7558	0.9007	1.0174	1.0267	1.1022
	Return on Assets	0.0864	0.0735	0.0045	0.0263	0.0910	0.0918	0.0911
	Net Profit Margin	0.0770	0.0859	0.0059	0.2920	0.0894	0.0894	0.0827
	Intangible Asset Ratio	0.0518	0.0379	0.0387	0.0478	0.0468	0.0285	0.0313
	Contingent Liabilities Ratio	0.0961	0.0606	0.0929	0.1036	0.1067	0.0871	0.1320
	Return on Net Worth	0.1510	0.1266	0.0077	0.0386	0.1401	0.1437	0.1360
	Return on Capital Employed	0.1979	0.1380	0.1235	0.1326	0.1686	0.1695	0.1428
<b>Tata Motors</b>	Asset Turnover Ratio	0.0105	0.0073	0.0047	0.7018	1.1361	0.9935	0.7526

	Return on Assets	0.0441	-0.0217	-0.0368	-0.1164	0.0331	-0.0174	-0.0412
	Net Profit Margin	0.0414	-0.0294	-0.0793	-0.1659	0.0291	-0.0175	-0.0548
	Intangible Asset Ratio	0.0391	0.0315	0.0999	0.0906	0.0652	0.0576	0.0488
	Contingent Liabilities Ratio	0.0407	0.0525	0.0568	0.0757	0.1189	0.0889	0.0813
	Return on Net Worth	0.1214	-0.0697	-0.1257	-0.3964	0.0911	-0.0513	-0.1148
	Return on Capital Employed	0.0996	0.0107	0.0037	-0.0718	0.1157	0.0504	-0.0119
<b>Maruti Suzuki</b>	Asset Turnover Ratio	0.0150	0.0123	1.0037	1.2087	1.3668	1.3434	1.3272
	Return on Assets	0.0967	0.0513	0.0603	0.0903	0.1191	0.1300	0.1434
	Net Profit Margin	0.0684	0.0426	0.0601	0.0747	0.0871	0.0968	0.1080
	Intangible Asset Ratio	0.0066	0.0048	0.0032	0.0054	0.0072	0.0053	0.0073
	Contingent Liabilities Ratio	0.1157	0.2783	0.2212	0.2071	0.1921	0.1128	0.1316
	Return on Net Worth	0.1333	0.0696	0.0823	0.1166	0.1625	0.1849	0.2017
	Return on Capital Employed	0.1640	0.0835	0.0974	0.1404	0.2160	0.2583	0.2642
<b>Bajaj Auto</b>	Asset Turnover Ratio	0.0116	0.0104	0.0099	1.2076	1.1048	1.0536	1.0457
	Return on Assets	0.1807	0.1532	0.1444	0.2058	0.1707	0.1707	0.1838
	Net Profit Margin	0.1544	0.1514	0.1641	0.1704	0.1545	0.1616	0.1758
	Intangible Asset Ratio	0.0010	0.0008	0.0015	0.0017	0.0007	0	0.0021
	Contingent Liabilities Ratio	0.0573	0.0681	0.0529	0.0728	0.0678	0	0.0970

	Return on Net Worth	0.2213	0.1881	0.1807	0.2559	0.2146	0.2149	0.2246
	Return on Capital Employed	0.2872	0.2276	0.2296	0.3208	0.2828	0.2950	0.3032
<b>Hero MotoCorp</b>	Asset Turnover Ratio	0.0150	0.0133	1.3898	1.5379	1.9074	1.9254	1.9395
	Return on Assets	0.1251	0.1138	0.1337	0.1937	0.1918	0.2208	0.2298
	Net Profit Margin	0.0860	0.0845	0.0962	0.1259	0.1005	0.1147	0.1184
	Intangible Asset Ratio	0.0215	0.0137	0.0131	0.0075	0.0080	0.1010	0.0058
	Contingent Liabilities Ratio	0.0125	0.0137	0.0112	0.0133	0.0466	0.0262	0.0327
	Return on Net Worth	0.1742	0.1566	0.1950	0.2570	0.2632	0.3141	0.3339
	Return on Capital Employed	0.2207	0.1968	0.2443	0.2652	0.3715	0.4235	0.4400
<b>Eicher Motors</b>	Asset Turnover Ratio	0.0009	0.0075	0.6827	0.8580	1.0334	1.1491	1.2703
	Return on Assets	0.1554	0.1110	0.1053	0.1799	0.2167	0.2197	0.2815
	Net Profit Margin	0.1864	0.1566	0.1542	0.2097	0.2017	0.1212	0.2216
	Intangible Asset Ratio	0.0274	0.0356	0.0424	0.0175	0.0189	0.0050	0.0060
	Contingent Liabilities Ratio	0.0507	0.0243	0.0157	0.0158	0.0446	0.0586	0.1018
	Return on Net Worth	0.1864	0.1566	0.1542	0.2097	0.2882	0.3188	0.3977
	Return on Capital Employed	0.2546	0.1860	0.1758	0.2800	0.4205	0.5291	0.5617

Sources: Authors' Own Computation from Annual Reports of the Companies

## 2. Metal Sector

**Table 8: Extracted Key Financial Ratios of Metal Sector**

Company's Name	Key Financial Ratios	Financial Years						
		2023	2022	2021	2020	2019	2018	2017
<b>Tata Steel Limited</b>	Asset Turnover Ratio	0.0057	0.0064	0.0051	0.4018	0.5135	0.4764	0.4305
	Return on Assets	0.0662	0.1487	0.0946	0.0048	0.0766	0.0333	0.0309
	Net Profit Margin	0.1201	0.2558	0.2029	0.1115	0.1491	0.0699	0.0717
	Intangible Asset Ratio	0.0033	0.0036	0.0047	0.0048	0.0059	0.0063	
	Contingent Liabilities Ratio	0.1874	0.1703	0.1852	0.2171	0.2518	0.2267	
	Return on Net Worth	0.1149	0.2631	0.1808	0.0904	0.1495	0.0677	0.0071
	Return on Capital Employed	0.1366	0.2799	0.1489	0.0949	0.1712	0.1279	0.2332
<b>Adani Enterprise Limited</b>	Asset Turnover Ratio	0.0218	0.0155	1.0282	1.1673	1.0725	0.6197	0.5307
	Return on Assets	0.0404	0.0332	0.0283	0.0503	0.0336	0.0127	0.0115
	Net Profit Margin	0.0241	0.0268	0.0276	0.0431	0.0313	0.0206	0.0284
	Intangible Asset Ratio	0.0134	0.0262	0.0434	0.0427	0.0426	0.0409	0.0443
	Contingent Liabilities Ratio	0.0945	0.3374	0.5091	0.4363	0.4129	0.5761	0
	Return on Net Worth	0.1164	0.1523	0.0893	0.1858	0.1499	0.0504	0.0588
	Return on Capital Employed	0.1944	0.2252	0.2291	0.2112	0.2859	0.2052	0.2061
<b>Hindalco Industries Limited</b>	Asset Turnover Ratio	0.0078	0.0071	0.0051	0.5026	0.5613	0.5174	0.4263
	Return on Assets	0.0343	0.0555	0.0112	0.0077	0.0147	0.0173	0.0179
	Net Profit Margin	0.0432	0.0814	0.0232	0.154	0.0263	0.0335	0.0421
	Intangible Asset Ratio	0.0054	0.0054	0.0036	0.0039	0.0043	0.0043	0.0041
	Contingent Liabilities Ratio	0.0579	0.0458	0.0116	0.0204	0.0294	0.0219	0
	Return on Net Worth	0.0568	0.1011	0.0198	0.0136	0.0248	0.0290	0.0348
	Return on Capital Employed	0.0801	0.1410	0.0440	0.0416	0.0517	0.0638	0.0646
	Asset Turnover Ratio	0.0078	0.0008	0.5308	0.5265	0.7185	0.7594	0.6458
	Return on Assets	0.285	0.1025	0.629	0.0433	0.0755	0.054	0.0441

<b>JSW Steel</b>	Net Profit Margin	0.0374	0.1405	0.1186	0.0823	0.1052	0.0711	0.0684
	Intangible Asset Ratio	0.0104	0.0115	0.0121	0.0026	0.0016	0.0008	0.0006
	Contingent Liabilities Ratio	0.1831	0.1943	0.3834	0.3037	0.2636	0.2425	0.1844
	Return on Net Worth	0.0775	0.2630	0.1786	0.1379	0.2327	0.1657	0.1484
	Return on Capital Employed	0.097	0.2508	0.1678	0.1113	0.2175	0.1806	0.1600
<b>Vedanta Limited</b>	Asset Turnover Ratio	0.0044	0.0044	0.2718	0.2571	0.2561	0.3093	0.2206
	Return on Assets	0.1722	0.1157	0.0762	-0.0482	0.0336	0.04936	0.0666
	Net Profit Margin	0.4018	0.2725	0.2805	-0.1877	0.1313	0.1593	0.3019
	Intangible Asset Ratio	0.0053	0.0002	0.0002	0.0002	0.0002	0.0003	0.0009
	Contingent Liabilities Ratio	0.1759	0.1959	0.2381	0.2449	0.3719	0.4596	0.2291
	Return on Net Worth	0.4034	0.2220	0.1367	-0.0963	0.0651	0.0914	0.1387
	Return on Capital Employed	0.2594	0.2190	0.1683	0.0568	0.0820	0.0791	0.1231
<b>Jindal Steel &amp; Power Limited</b>	Asset Turnover Ratio	0.0072	0.0069	0.4818	0.4454	0.4805	0.284	0.2304
	Return on Assets	0.0362	0.1102	0.1034	0.0104	-0.0045	-0.006	-0.0164
	Net Profit Margin	0.0474	0.1675	0.2147	0.0235	-0.0094	-0.0211	-0.0712
	Intangible Asset Ratio	0.00085	0.0051	0.0010	0.0011	0.0012	0.0012	0.0012
	Contingent Liabilities Ratio	0.1422	0.1083	0.2005	0.2195	0.1970	0.2203	0.2200
	Return on Net Worth	0.0598	0.2052	0.2191	0.0260	-0.0116	-0.0158	-0.0453
	Return on Capital Employed	0.1406	0.2174	0.2022	0.0806	0.0897	0.0463	0.0189

Sources: Authors' Own Computation from Annual Reports of the Companies

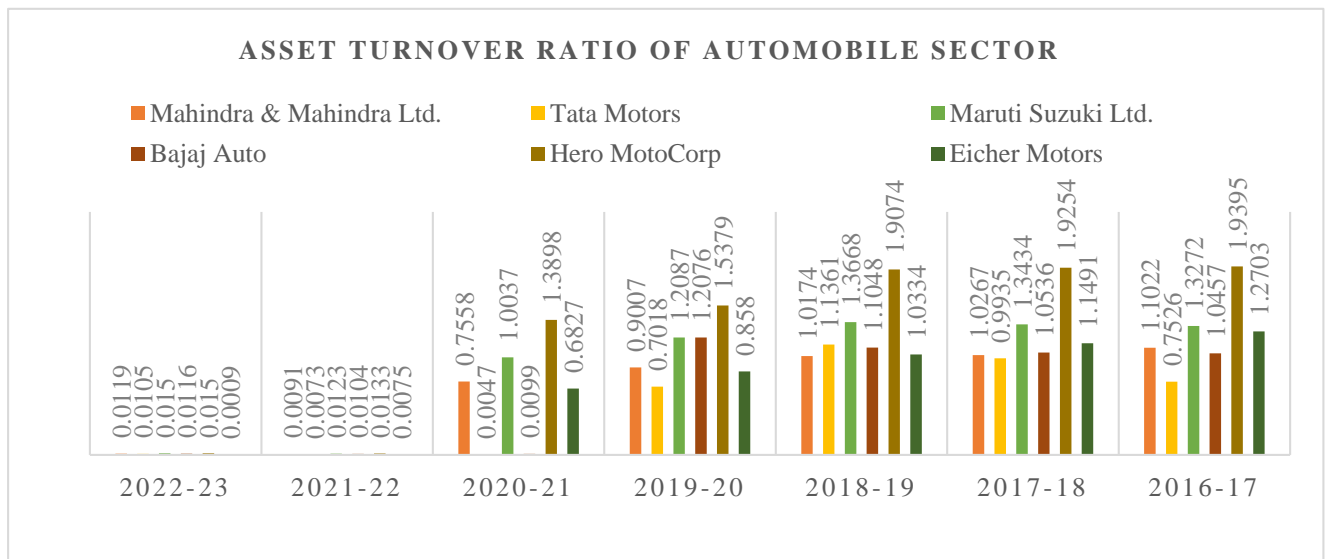


Figure 7: Asset Turnover Ratio of Automobile Sector (Author's Own Calculation from Table 7)

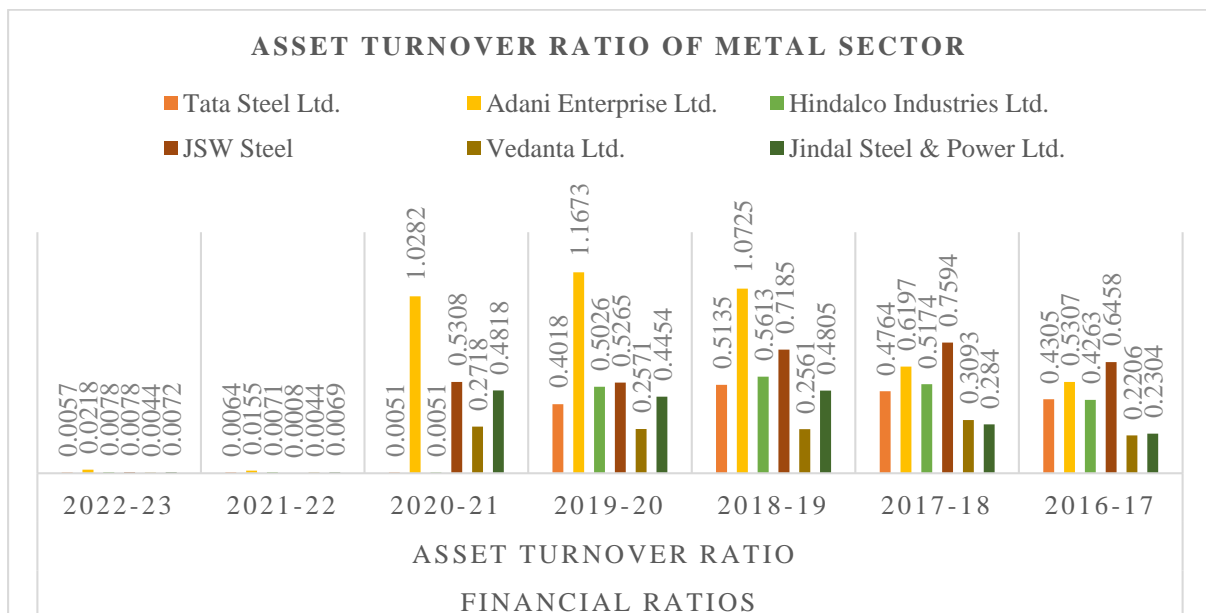


Figure 8: Asset Turnover Ratio of Metal Sector (Sources: Authors' Own Calculation from Table 8)

The Asset Turnover Ratio (ATR) shows how effectively the companies can utilise their assets to generate revenue. A higher ATR indicated strong operational efficiency, whereas a lower ratio signifies further improvements required. In both sectors (Figure 7 and Figure 8), it has been noticed that, except for the years 2021-22 and 2022-23, the results show a positive trend, which is satisfactory and signifies a positive impact on the company's financial health and performances.

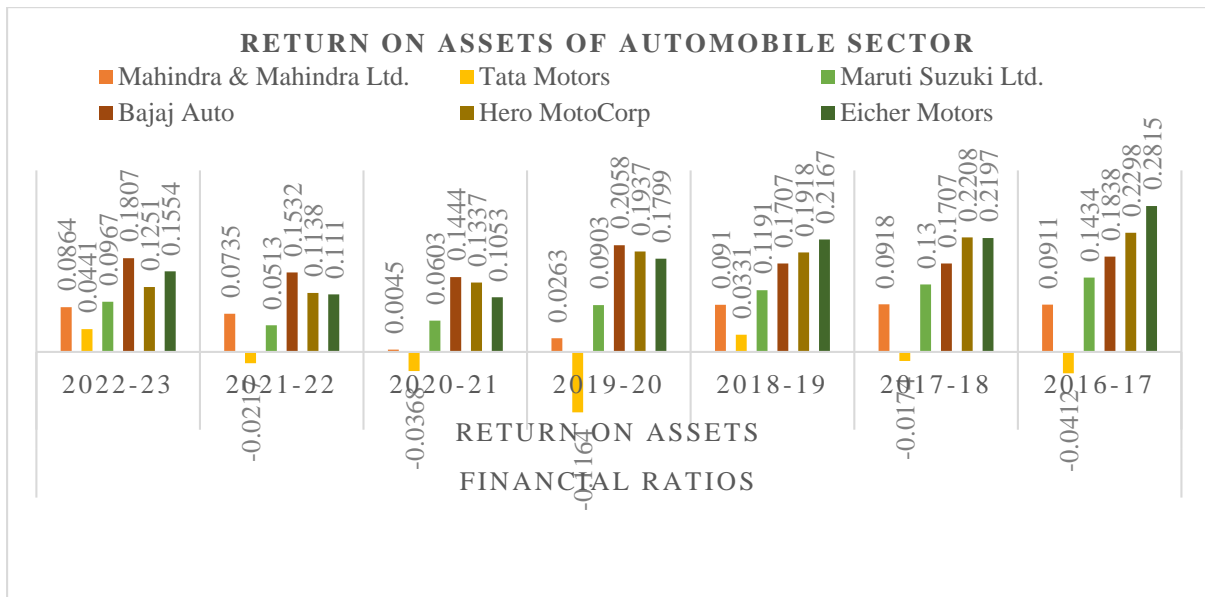


Figure 9: Return on Assets Ratio of Automobile Sector (Sources: Authors' Own Calculation from Table 7)

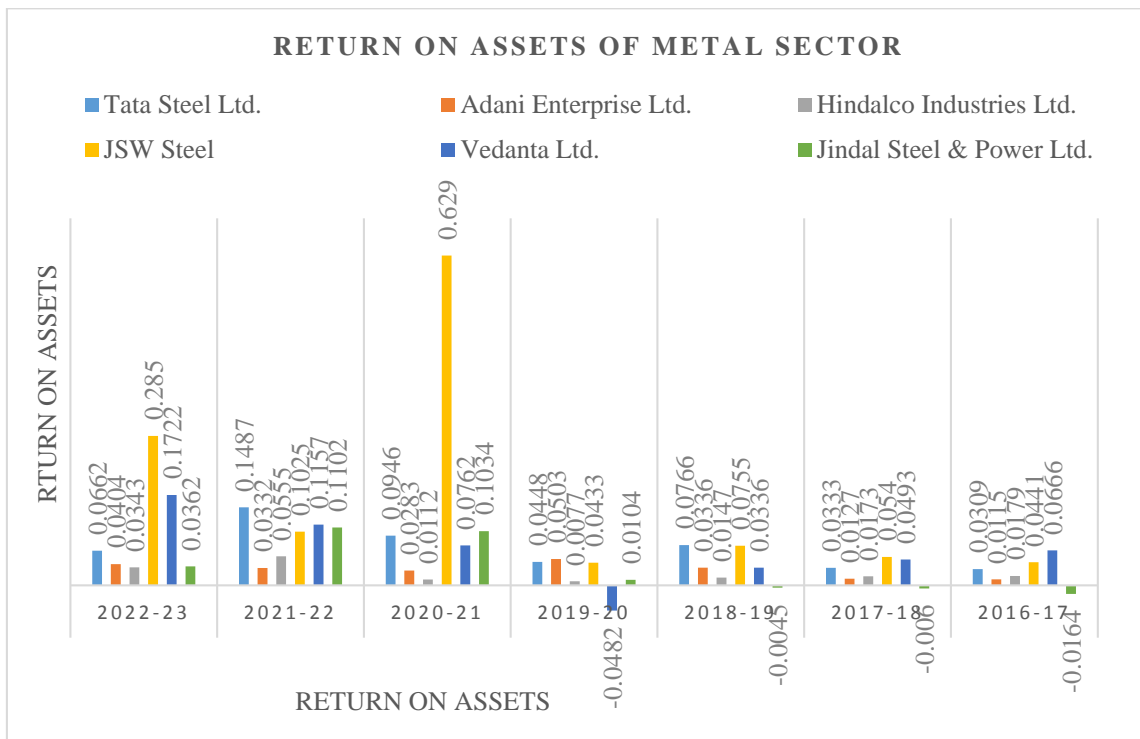


Figure 10: Return on Assets Ratio of Metal Sector (Sources: Authors' Own Calculation from Table 8)

Return on assets (ROA) is a profitability ratio that specifies how efficiently a company uses its assets to generate net income. Positive ROA specifies the operational efficiency of the company, whereas negative ROA specifies poor utilisation of assets and operational inefficiency, which is not a positive sign. In the automobile sector, it is seen that there is a positive ROA across all companies except Tata Motors for 2016-17, 2017-18, 2019-20, 2020-21, and 2021-22 (figure 9). On the other hand, in the metal sector, it also shows a positive return across all companies except for Vedanta Ltd. in 2019-20 and Jindal Steel & Power Ltd. from 2016-17 to 2019-20 (figure 10).



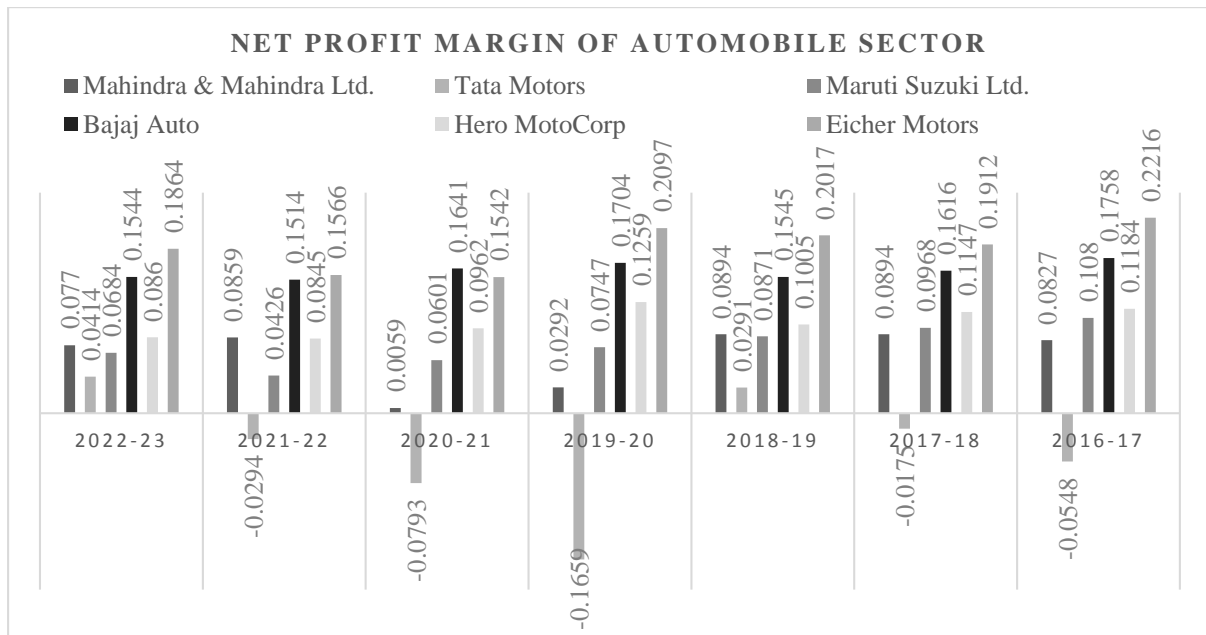


Figure 11: Net Profit Margin of Automobile Sector (Sources: Authors' Own Calculation from Table 7)

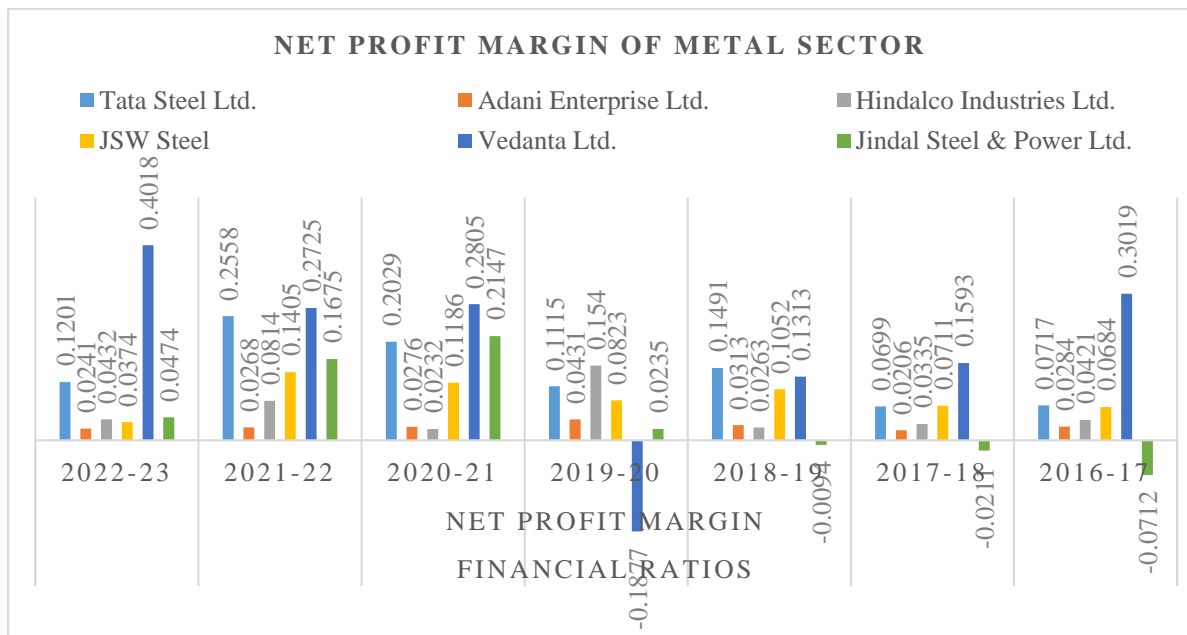


Figure 12: Net Profit Margin of Metal Sector (Sources: Authors' Own Calculation from Table 8)

Net profit margin signifies how much net profit or income generates as a percentage of its revenue. In the Automobile Sector (figure 11), except 2018-19 and 2022-23, Tata Motors incurs negative net profit throughout 2016-17, 2017-18, 2019-20, 2020-21, and 2021-22, whereas in the Metal Sector, Vedanta Ltd. incurs negative net profit in 2016-17 and 2019-20 (figure 12).

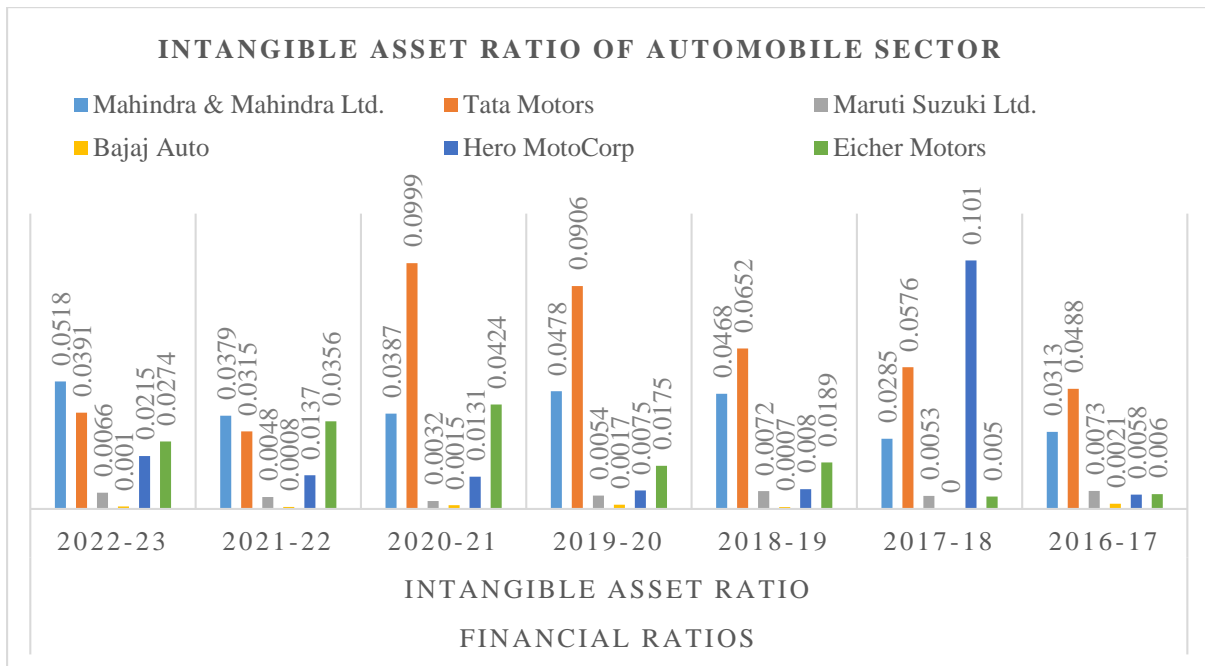


Figure 13: Intangible Asset Ratio of Automobile Sector (Sources: Authors' Own Calculation from Table 7)

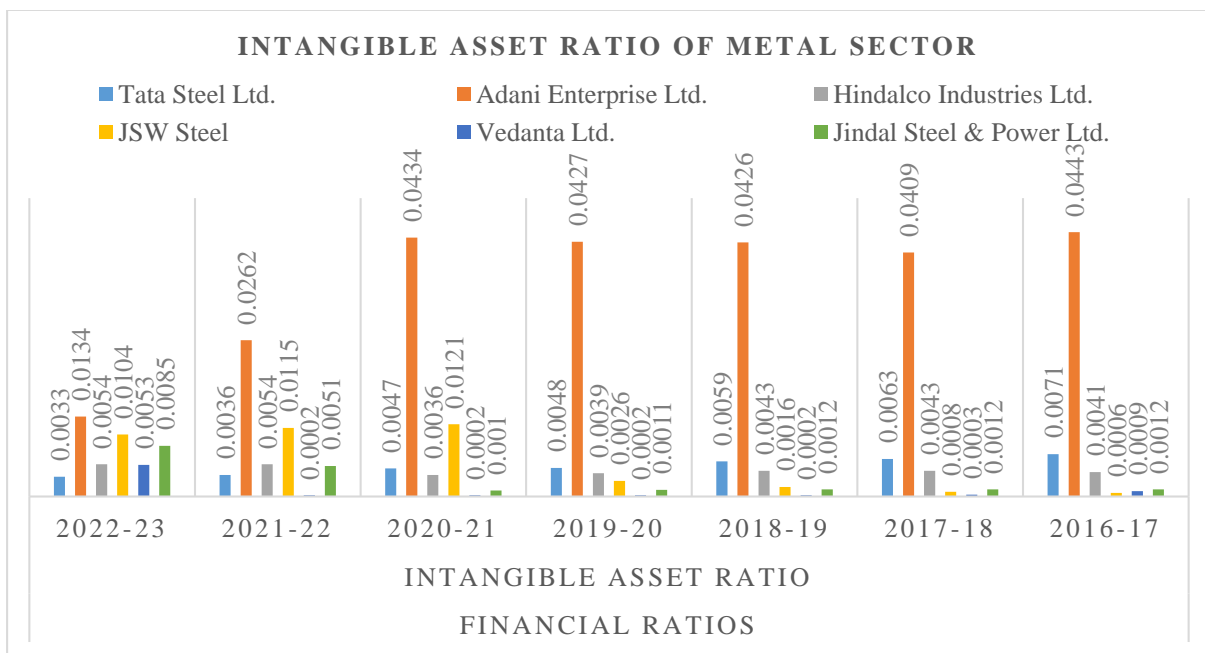


Figure 14: Intangible Asset Ratio of Metal Sector (Sources: Authors' Own Calculation from Table 8)

Intangible Asset Ratio (IAR) is one of the financial metrics that represents the proportion of the company's total assets that are intangible. In both these sectors (figures 13 and 14), it has been noticed that IAR is positive and it shows a significant positive growth towards companies strategic and research and development (R&D) areas, which is a good indicator in dealing with a with a company's financial position.

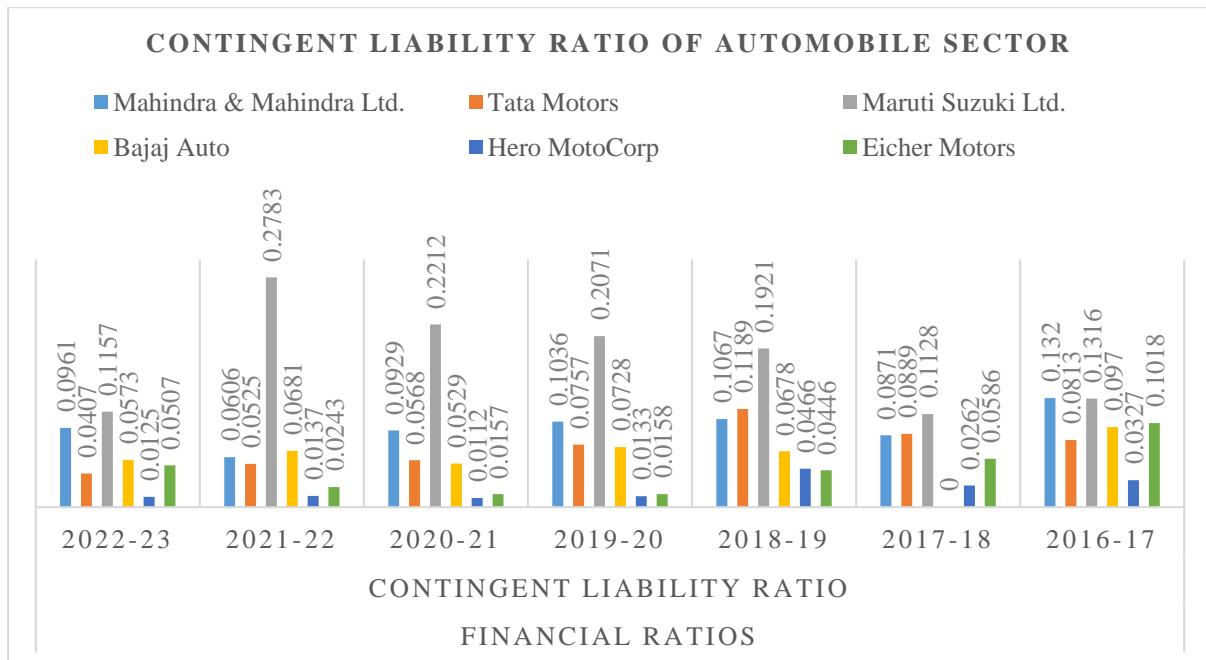


Figure 15: Contingent Liability Ratio of Automobile Sector (Sources: Authors' Own Calculation from Table 7)

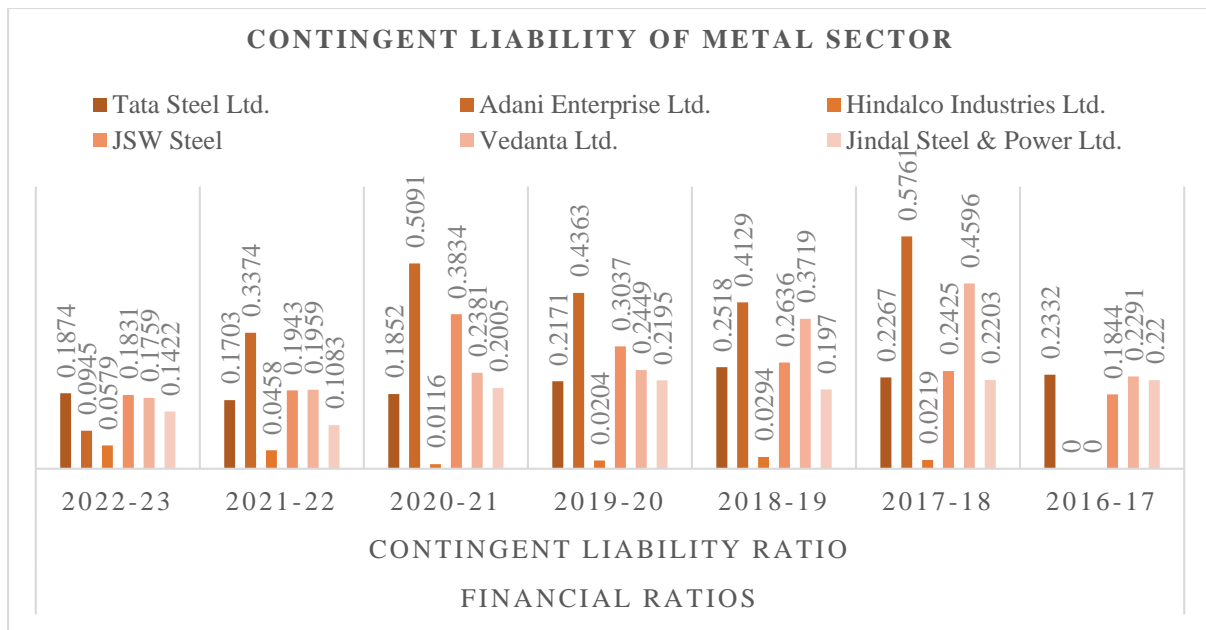


Figure 16: Contingent Liability Ratio of Metal Sector (Sources: Authors' Own Calculation from Table 8)

Contingent Liability Ratio (CLR) represents the company's possible liability on the occurrence of future events. So, a higher ratio is not a good indicator, as it signifies companies are facing difficulties in managing their potential financial risks or creditworthiness. In the automobile sector, it is seen that Maruti Suzuki's CLR is much higher than any other companies across the years, and in the metal sector, Adani Enterprise Ltd.'s condition is also not satisfactory (figures 15 and 16).

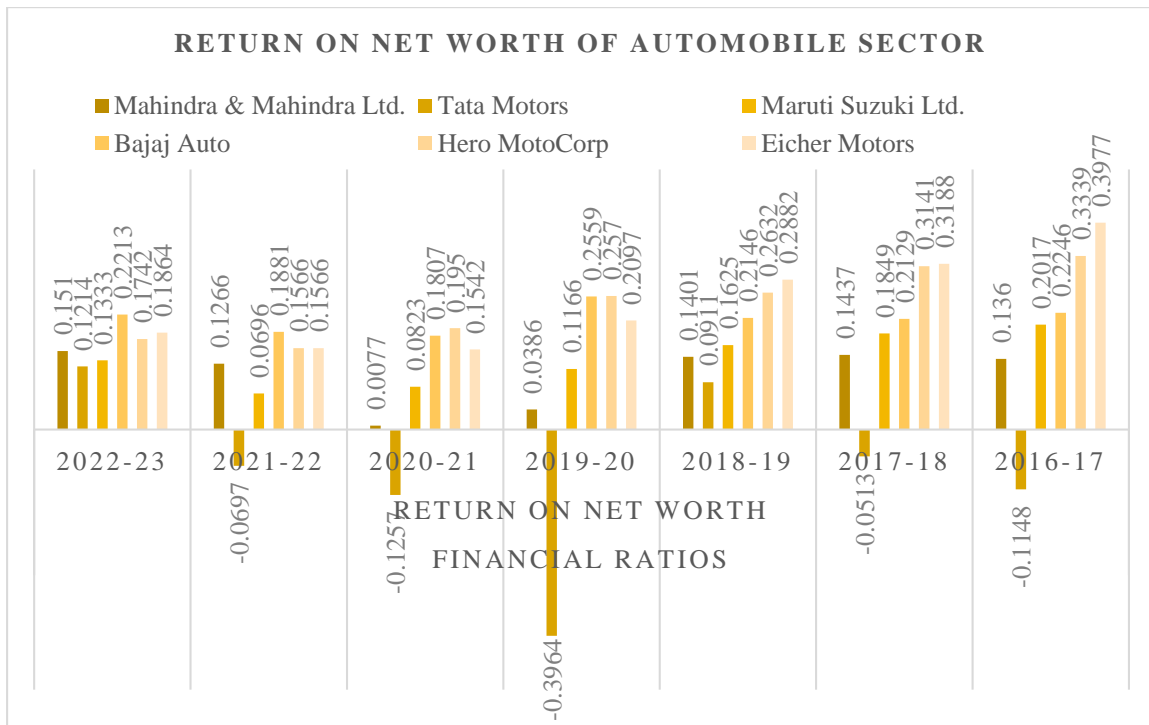


Figure 17: Return on Net Worth of Automobile Sector (Sources: Authors' Own Calculation from Table 7)

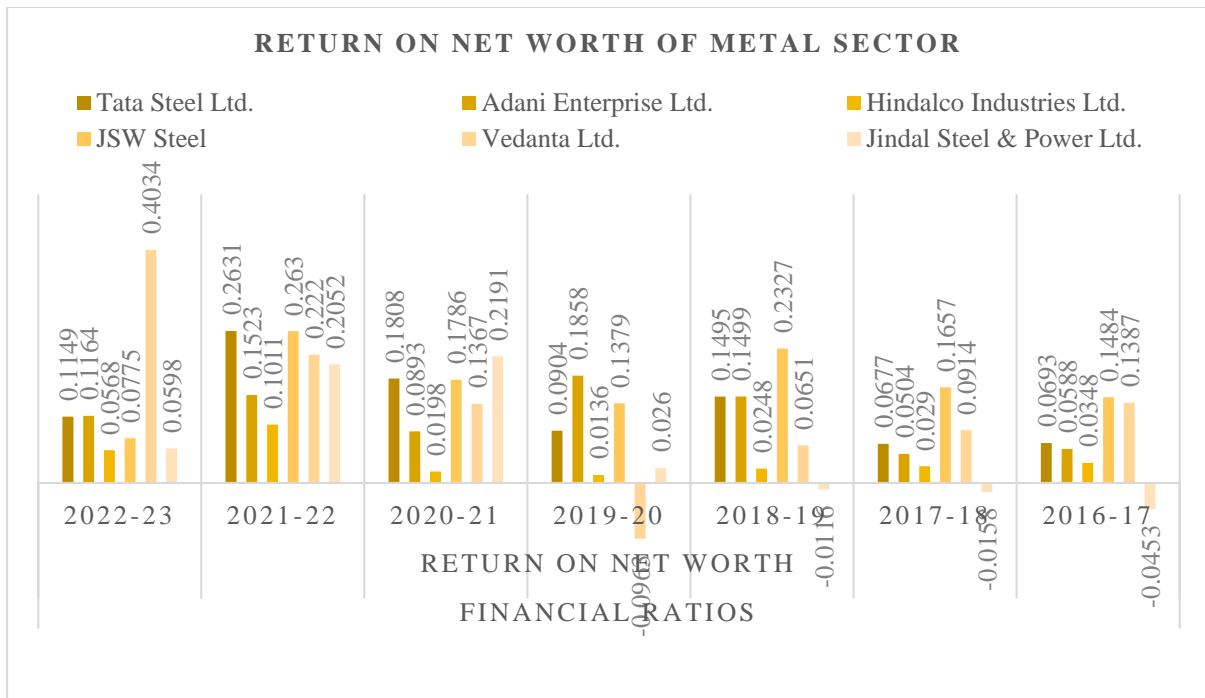


Figure 18: Return on Net Worth of Metal Sector (Sources: Authors' Own Calculation from Table 8)

Return on Net Worth (RONW) or Return on Equity (ROE) measures a company's profitability in relation to its equity held by the shareholders. Higher RONW signifies growth and efficiency of the company in utilising its equity, whereas negative RONW indicates companies are incurring losses instead of generating profit. In the Automobile Sector, except Tata Motors for 2018-19 and 2022-23, all the year's results show a positive trend (figure 17). Similarly, in the metal sector, except Vedanta Ltd. in 2019-20 and Jindal Steel & Power Ltd. from 2016-17 to 2019-20 shows a negative return, which means RONW is performing poorly in these years for these two companies (figure 18).

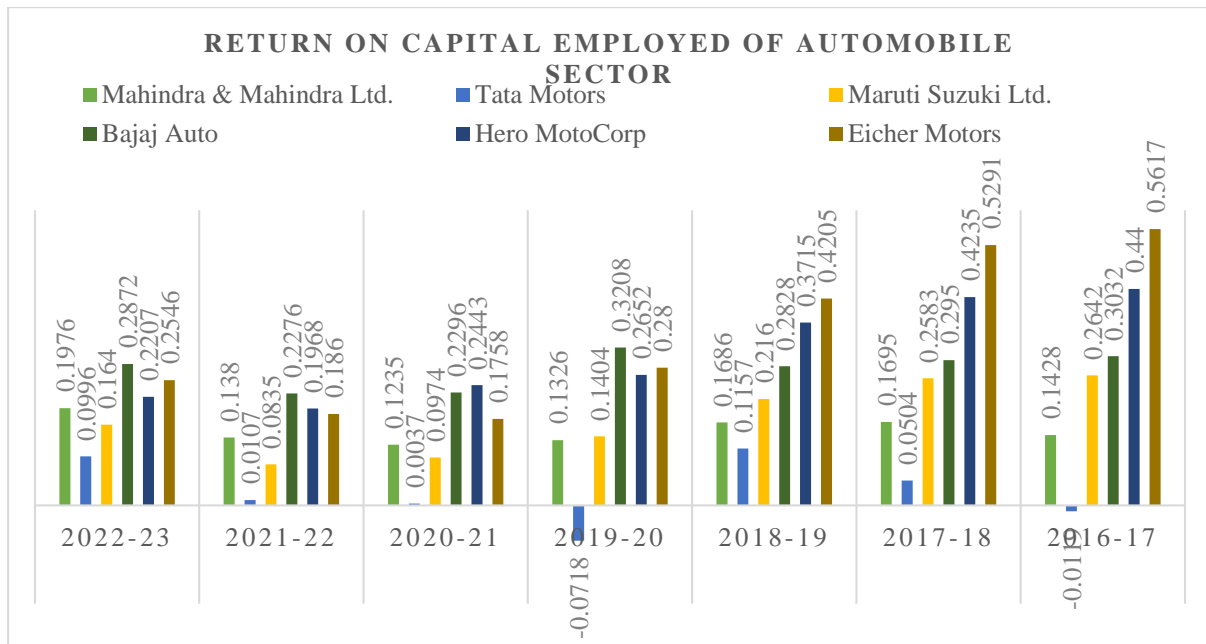


Figure 19: Return on Capital Employed of Automobile Sector (Sources: Authors' Own Calculation from Table 7)

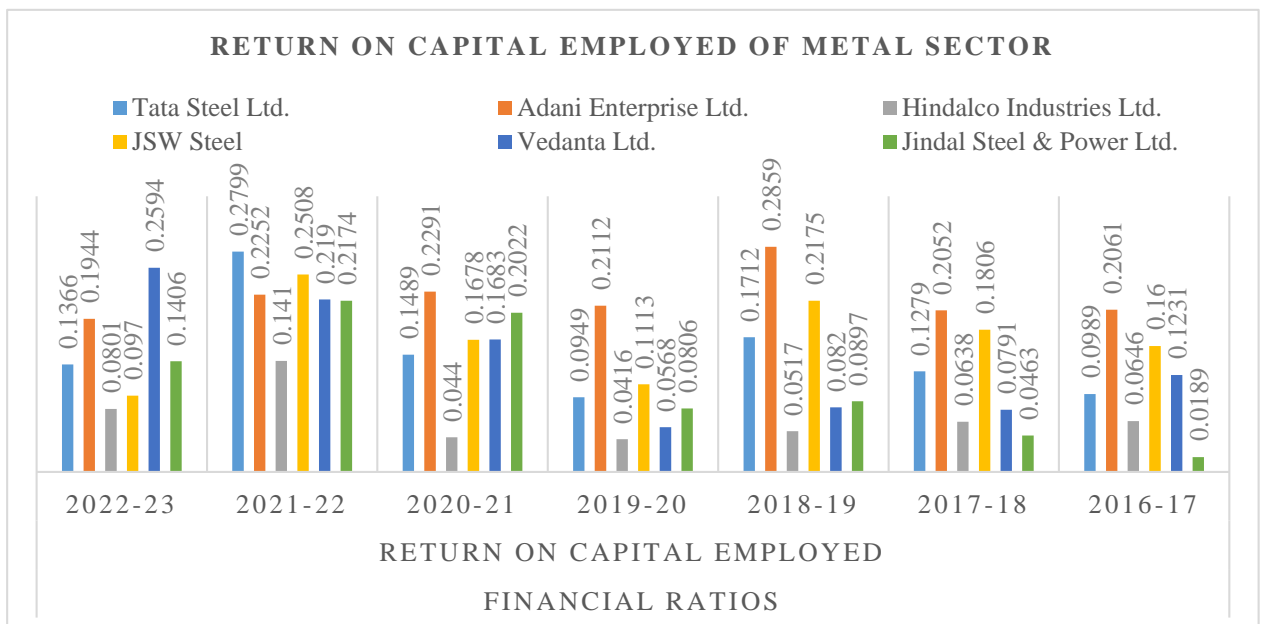


Figure 20: Return on Capital Employed of Metal Sector (Sources: Authors' Own Calculation from Table 8)

Return on Capital Employed (ROCE) specifies how effectively and efficiently a company is using its capital. Higher ROCE indicates higher efficiency of the companies, whereas lower ROCE signifies the company is not in good condition in managing investment decisions. In the Automobile Sector, except Tata Motors for 2016-17 and 2019-20, all the year's results show a positive trend (figure 19). Similarly, in the metal sector, all the companies show a positive trend throughout these years (Figure 20).

**Conclusion**

FVM is an approach that has been implemented in accounting by different countries across the globe, whether in terms of IFRS 13 or in their local converged accounting standards. On the basis of the above discussion, it can be concluded that, in terms of fair value disclosures in annual reports of these top 12 NSE-listed companies, the impact of FVM on the financial performances, more specifically on FVI, is not so good but not poor either. In terms of financial performances, key financial ratios specifically

related to liquidity and profitability have been considered based upon content analysis techniques to find out the impact on FVM. India has been progressing since the time of implementation of FVM, and their companies have also started to implement FVM in a phased-wise manner in terms of net worth. It has also been noticed across two sectors that none of these top 12 NSE-listed companies has successfully implemented FVM fully in their financial reporting. But these companies attempted to make their financial reports under FVM terminology and also take few assets and liabilities, investments, share-based payments, and payments related to employee benefit plans under fair value. Here in this paper, FVI has been used, which is a method to find out how these top 12 NSE-listed companies perform in the last 7 years of FVM implementation. Further, key financial ratios have been considered to see whether the companies have successfully implemented FVM in their accounting framework or not. Further, it has been recommended that the future study in fair value measurement can be conducted if the number of companies as well as sectors is increased. The study can further be conducted on the basis of a comparative analysis between fair value with other different countries. It can also be highlighted that if more companies disclose their financial statements under fair value, then the impact analysis will be much more conclusive and the results will be different. There are still loopholes in terms of volatility while valuing through fair value, but still, most of the countries welcomed this approach, and their companies have already started implementing fair value measurement in their financial reporting framework as per their own accounting guidelines.

### **Limitations of the Study**

- The study is limited to only two sectors as per NSE-listed companies (2 sectors and 12 companies) where impact has been analysed on the basis of FVI and few financial ratios that are directly or indirectly impacted by FVM.
- The results have been analysed on the basis of trend analysis of FVM on the financial performance of NSE-listed companies across two different sectors. The results could have been different if diversified companies had been chosen as per NSE-listed companies in these sectors.
- As Indian companies did not implement FVM across all financial items, i.e., partially disclosing under Ind AS 113 and partially under historical or other traditional methods, the results sometimes do not provide accurate, detailed, and insightful information regarding companies' financial statements.

### **Conflict of Interest**

The authors declare that they have no conflict of interests.

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