Analysing Value creation through Six Capitals of Integrated Reporting: A case study of Tata Steel Ltd.

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Abstract

Value creation and its communication are main objectives of any business while value of a company depends on various aspects i.e. financial, non-financial, tangible and intangible. It is easy to measure value in terms of financial and tangible factors but difficult in terms of intangible and non - financial factors. Integrated reporting provides a solution for this problem. The concept of 6 capitals – Financial capital, manufacturing capital, human capital and social and relational capital, Intellectual capital and natural capital - is introduced in the Integrated Reporting Framework to create and communicate value. This study is an attempt to investigate about the integrated reporting and its role to create & communicate value in Tata Steel. The analysis is based on Annual Reports of Tata Steel for the financial year 2011-12, 2012-13, 2013-14, 2014-15, and 2015-16. Tata steel is the first Indian companies introduced Integrated Reporting Framework in its annual report. The trend analysis, CAGR are used as research tools to know about the created value of Tata Steel through six capital. Results of this study show that there is a fluctuating trend in terms of performance of the company.

Keywords: *Integrated reporting, six capitals, value creation, communication, corporate reporting.*

Introduction

"Better reporting leads to better understanding which should lead to better value creation" (Alan Stewart)

The main objective of any company is to create and sustain value for short as well as for long term. Every company creates value for its customers, employees, stakeholders, investors, creditors etc. In financial terms, value is the excess of revenue over expenses but for various stakeholders, it has different meaning such as stakeholders' wealth maximisation, revenue generation from operations, corporate governance, workers' participation in management, customers' satisfaction, product innovation, employees' satisfaction etc. There are various aspects on which value of a company depends i.e. financial, non-financial, tangible and intangible. It is easy to measure value in terms of financial and tangible factors but difficult in terms of intangible and non - financial factors. Integrated reporting (IR) provides a solution for this problem. The International Integrated Reporting Council (IIRC) defines it as a process which results in communication by an organization, most visibly through a periodic integrated report, about how an organization's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long-term. Now, it is the time for reporting in 21st century in which expectation and demand towards corporate transparency & accountability are increasing due to globalisation & frequent market changes. There is a growing demand for providing extensive information on various aspects of business viz. how the business is conducted, how their business models work, how companies create values, how they manage risks and how they meet their obligations towards economy, society and environment etc. There are various reporting standards, framework and guidelines to report all these and integrated reporting can be used as another type of reporting convention. Under integrated reporting, a report is prepared which fully integrates a company's financial and non-financial performance aspects. In other words, it is the combination of financial report and sustainability report. Moreover, it is not only confined to this but also communicates a company's opinion, vision, thought, objectives, outlook, strategies etc. with its stakeholders.

There are 3 fundamental concepts on which Integrated reporting framework is based i.e. value creation, value creation process, and 6 types of capitals i.e.

1. Financial capital (funds from debt or equity capital)

2. Manufacturing capital (physical objects used in production such as tools, equipment, machinery)

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3. Intellectual capital (knowledge based assets such as patents, trademarks)

4. Human capital (competencies, capabilities, experiences of people)

5. Social & Relationship capital (values, reputation, relationship between organisation and society)

6. Natural capital (environmental resources)

Integrated reporting exhibits how these capitals are represented all resources and by utilizing these resources, a firm creates value. These capitals are input and firm transforms these into output to create value.

Role of Integrated Reporting in Value Creation & Communication

Reporting is the way through which company communicates its performance/value to its various stakeholders. Value creation is a process in which various value drivers are connected within and outside the organisation. This requires detailed information, firm's clear strategy, business model, changes which create risks as well as opportunities, how various social and environmental aspects create risks, how company mitigates these risks etc. Value creation has many forms such as increasing sales, increasing customer base, increasing operating profit/ profit margin, decreasing cost, increasing brand or reputation etc. For better value creation, a company

- requires change according to internal and external environment.
- develops business strategies intelligently with focus on long term goals.
- implements business models thoroughly and report these accordingly.
- have vision and good corporate governance by which company demonstrates its transparency, integrity and accountability.
- Discloses/ communicates relevant, detailed and interconnected information in a concise, clear and comparable format so that various stakeholders can make their decisions according to their interests.

Integrated reporting has all the necessary features which help the company in the following manner:

1. Transparency is the feature of integrated reporting which acts as a facilitator of market reforms. Stakeholders can access information related to their interest. Through IR, Organisation communicates its view towards itself and towards society.

2. IR helps to build/ rebuild public trusts.

3. It helps to improve performance and ability to meet its obligation.

4. It helps to engage the board of company with stakeholders to whom company communicates its capability to create value in long run.

The survey conducted by the American Institute of Certified Public Accountants(AICPA) and the Chartered Institute of Management Accountants (CIMA) in July 2014, provides a valuable insight about the potential benefits of IR and concludes that it helps in value creation and build strong business relationship with internal and external stakeholders.

Value creation for stakeholders

Various stakeholders such as investors, potential investors, suppliers, customers, regulatory authorities, policy makers, creditors, employees, community etc. are interested in company's performance. Value creation for some stakeholders is as follows:

- **Value creation for the investors and by the investors:**

Value creation for the investors is the consistent attractive returns. Investors look for various reporting elements (financial as well as non-financial) and integrate these elements for investment decisions. By integrated reporting, a company integrates all these elements in one report and provides more holistic view of performance. Capital market can better understand the company's strategy and make forward looking investment and other key decisions. High quality reporting increase confidence of investors and encourage them to invest. It is the way to tell about the way a company do business & deliver value in globalised and instable market.

- **Value creation for the employees and by the employees:**

Value creation for employees includes provision for training and development, employees' participation in management decision making, good remuneration, various incentives etc. A company's ability to create value depends on its people. Motivated and satisfied employees help the firm to increase its productivity. IR communicates about what the company wants to achieve, about the worker's participation in management decision making, labour practices, human right, labour welfare policies etc. By this, retention of employees increases and new persons attract towards the firm.

- **Value creation for the customers and by the customers:** Customer is the king and value creation for customer is availability of useful and innovative product as per his/her requirement. This will help the firm for sales growth. Satisfied and loyal customer increases the revenue of the firm, increases reputation & market share and thus creates value.

Forms of Value creation through Integrated Reporting

- Growth in revenue and market share: Growth is stimulated through transparency, accountability, responsiveness towards stakeholders. Responsive company towards customers' demand leads to increase in market share and ability to run the business for long term.

- Cost reduction and productivity enhancement: Transparency leads to reduce the cost of litigation. Labour welfare policies such as better working conditions, better recruitment leads to lower staff turnover, less wastage, lower energy cost and is helpful in cost reduction. High morale and less absenteeism increases productivity.

- Capital procurement: Due to good governance, openness and trust new source of funds are also attracted. IR helps to attract the investors, banks, financial markets.

- Better risk management: Various regulatory body, government, NGOs positively support the transparent firm. Risks related to consumer, labour, and non- compliance of rules are reduced by transparent reporting.

- Attract human capital: People like to work in in a firm where information system is open. IR helps to retain the existing employees. Safe working environment and human resources development activities are helpful to attract new talent.

- Increase brand value and reputation: Transparency in firm having all material information in a clear and understanding report is seen by the customers, regulators and media positively. This enhances the brand value of the firm.

- The primary purpose of the integrated report of Tata Steel is to communicate to the stakeholders about the value of the company and how it is created. Capitals of Tata Steel are used as stocks of value which is converted into output by its business activities. Vision of Tata steel is to be the global steel industry and set a benchmark for creating value.

Objective of the study: to analyse the value creation of Tata Steel in relation to six capitals of Integrated Reporting.

Research Methodology: The Case of Tata Steel Ltd. Tata Steel is the first Indian company who adopted Integrated Reporting Framework for presenting its annual report. The study is conducted for 5 years i.e. 2011-12, 2012-13, 2013-14, 2014-15, 2015-16. Trend analysis, percentage, CAGR (Compounded annual growth rate) are carried out by the author on the basis of information of the company in their website.

Details about 6 capitals in Tata Steel and value creation through these capitals

Table 1 exhibits the evolving vision of Tata Steel from in five year span from 2011-912 to 2015-2016. Tata Steel has traversed from the vision of sustainability to working together for achieving sustainability

Table 1: Vision of Tata Steel over time

Elements	2011-12	2012-13	2013-14	2014-15	2015-16
Central notion/ vision of Tata steel in different years	cornerst-ones of sustain-ability	The Jour-ney towards enduring sustaina-bility	Journey towards operati-onal excellence	Respond-ing to challenges, creating long term value	Working together to create sustain-able value

To achieve this vision Tata steel has worked on all aspects of development. Thereafter, these are reported in the following IR framework to improve value creation through all round attention. This paper step by step will analyse them and assess the outcome in each category.

Financial capital: In financial capital, Tata steel includes the pool of funds (debt and equity) which are used in business operations and invested in the market for creating value in form of the growth of market share earnings before tax and dividend interest on investment earning per share; dividend per share etc.

Table 2: Elements of Financial Capital

Elements	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR
Borrowed funds (cr.)	59,897	66,074	81,609	80,701	86,204	9.53%
Net worth (cr.)	44,931	36,469	42,827	33,644	30,773	-9.03%
Capital emp loyed (cr.)	1,08,423	1,07,367	1,28,769	1,18,934	1,21,537	2.89%
Gross revenue (cr.)	1,36,651	2,38,849	1,53,247	1,44,478	1,25,204	2.16%
Profit before tax (cr.)	8,585	(4,133)	6,722	(1,388)	(1,674)	-
Profit after tax	4,949	(7,363)	3,664	(3,956)	(3,179)	-
Total net sales and operating income (cr.)	1,32,900	1,34,712	1,48,614	1,39,504	1,17,152	3.10%
Earning per share (EPS) Rs.	54.27	(74.54)	35.19	(42.24)	(33.23)	-
Dividend per share (DPS) Rs.	12	8	10	8	8	-9.64%
Debt equity ratio	1.16	1.36	1.77	1.84	2.32	18.92%
Revenue from branded products	(%)	-	-	48	50	-
Return on average capital employed	(%)8.47	6.42	8.83	5.49	5.17	11.61%
Number of shareholders	10,37,209	10,66, 996	10,10,971	9,97,322	9,69,263	-

Source: author's compilation (annual reports of Tata Steel)

Interpretation of Table 2: From the above, there is fluctuating trend for most of variables. Therefore, it is necessary to look at CAGR which reflects overall growth for the selected time period. In the above table, CAGR of borrowed fund depicts the overall increase at the rate of 9.53%.CAGR of net worth is -9.03% which shows the overall decrease in net worth at the rate of 9.03%. Overall Growth in capital employed is 2.89%. Gross revenue, total net sales & operating income, Dividend per share and return on average capital employed decrease with CAGR 2.16%, 3.10 %, 9.64% & 11.61 % respectively. Due to borrowed fund, there is decrease in net worth & capital, there is a decreasing trend in profit and EPS of Tata Steel, fluctuation in Dividend per share and return on average capital employed. Table 2 also shows that due to decreased return, number of shareholders is reduced. Market share of Tata Steel in automotive is 43% which is same in 2014-15 and 2015-16. Market share of Tata Steel in construction projects is increased by 2% in 2015-16 (11%) as compared to 2014-15 (9%).

2. **Manufacturing capital:** Manufacturing capital of Tata Steel includes the physical objects used in the manufacturing process. This capital helps to create value in the form of production and sales.

Table 3: Elements of Manufacturing Capital

Elements	2011-12	2012-13	2013-14	2014-15	2015-16	CAGR%
Fixed assets (net) (cr.)	27,413	33,597	42,775	48,285	52,411	17.59%
Investments (cr.)	50,283	50,419	54,662	53,164	56,681	3.04%
Purchased of finished, semi-finished steel and other products (cr.)	21,073	18,474	17,008	13,804	10,174	-16.64%
Raw materials consumed (cr.)	45,458	40,643	46,243	40,770	32,188	-8.27%
Hot Metal/ Iron (million tons)	7.75	8.86	9.90	10.17	10.66	8.29%
Crude steel (million tons)	7.13	8.13	9.16	9.33	9.96	8.71%
Saleable Steel Production (million tons)	6.97	7.94	8.93	9.07	9.70	8.61%
Production (million tons)	21.85	24.16	27.37	28.57	30.32	8.53%

Source: author's compilation (annual reports of Tata Steel)

Interpretation of Table 3: Tata Steel has created value in terms of production with the manufacturing capital i.e. fixed assets; raw materials; semi- finished goods and finished goods. Overall growth for the given time period in fixed assets is 17.59%, in investments is 3.04%, in production is 8.53% .Materials consumed are showing decreasing trend while Production of hot metal / iron and crude steel are showing increasing trend. Overall decline in purchased of finished, semi- finished and other product is 16.64% and in raw material consumed is 8.27%.

Table4: Year- wise Value creation in financial terms
% change in financial performance

Performance elements	2012-13	2013-14	2014-15	2015-16	CAGR %*
Total net sales and operating income	1.4%	10%	-6%	-16%	-3.10%
Gross revenue	75%	-36%	-6%	-13%	-2.16%
Fixed assets (net)	22.6%	27%	13%	9%	17.59%
Investments	0.3%	8%	-3%	7%	3.04%
Purchased of finished, semi - finished steel and other products	-12.3%	-8%	-19%	-26%	-16.64%
Raw materials consumed	-10.6%	14%	-12%	-21%	-8.27%
Production	11%	13%	4%	6%	8.53%
Saleable Steel Production	14%	12.5%	1.2%	7%	8.61%

* Compounded annual growth rate

Source: author's compilation from table 1& 2.

Interpretation of Table 4

The percentage change in performance for all variable in table 4 is calculated from data of table 1 & 2

$$\% \text{ change in performance} = (Y_t - Y_{t-1}) / Y_{t-1} \times 100$$

Y_t = Current year performance

Y_{t-1} = previous year performance

Compounded annual growth rate has been calculated for financial and manufacturing capital because value creation can be represented better by these capitals. All performance elements have shown fluctuating trend, so, with the help of CAGR, a compounded annual growth has been calculated for all these above elements. Production, fixed assets and investment have shown positive trend/ growth while other elements have shown negative trend/ growth. All this happens due to fluctuating market economy, increasing production cost, competition, some management issues etc.

3. Intellectual capital: It includes knowledge based activities and intangible assets, research and development activities etc. The company creates value by increasing production & sales through innovation.

Interpretation of Table 5: Number of patents applied and granted are increasing and the company has spent 448 crore rupees in research and development activities for creation of more intellectual capital. There is an enhancement of business value generated through information technology.

Table 5. Various Elements of Intellectual Capital

Elements	2011-12	2012-13	2013-14	2014-15	2015-16
No. of Patents /copy rights applied (cumulative)	549	605	663	720	791
No. of Patents granted (cumulative)	182	220	250	286	318
No. of New product developed	19	37	40	41	39
Research & Development expenditure (cumulative) cr.	-	-	-	-	448
Business value generated through information Technology (cumulative)	36	50	141	120	229
Collaboration with technical institute cumulative (no.)	-	-	-	-	20

Source: author's compilation (annual reports of Tata Steel)

Table 6 : Elements of Human capital

Elements	2011-12	2012-13	2013-14	2014-15	2015-16
Employee productivity (TCS/employee/year)	455	512	597	623	701
% of employee engaged in improvement activities	74	79	82	89	85
Loss time injury frequency rate	.68	.60	.56	.44	.31
% of skilled employees	-	-	70	91	94
Number of employees	81,622	80,534	80,391	79,647	35,439
Training expenditure of last 5 years (cr.)	-	-	-	-	578

Source : *Author's Compilation (Annual Reports of Tata Steel)*

4. **Human capital:** Skilled, competent, experienced, trained, motivated & healthy employees of Tata Steel are the human capital of the company. These employees create value by efficient and effective working in the form of quality production, less wastage, reduction in loss time injury or accident etc.

Interpretation of Table 6: Loss time injury frequency rate is decreasing which is good for employees' perspective. Number of employees is reduced due to decreasing profit. Skilled employees have been increasing 94 % because of various training &development interventions which are more than 96,000 at different levels. By this, employees' productivity has been increased. 5.

Social and relationship capital: This capital of Tata steel represents the cooperation of Tata steel with community, social group, dealers and distributors for social welfare. By this, the reputation and brand image of the company increases which in turn results economic benefit to the company.

Table 7: Various elements of Social and relationship capital

Elements	2011-12	2012-13	2013-14	2014-15	2015-16
Number of dealers (cumulative)	3000+	3000+	3000+	9,326	10,991
Number of distributors	36	47	50+	70	77
Corporate social responsibility expenditure (cr.)	-	171	212	171	204
Adult literacy(No.)	5600	13570	16824	15612	-
Scholarship provided	1956	2477	3169	3567	2985
No. of patients treated	289000	372000	419000	485384	533597

Source: author's compilation (annual reports of Tata Steel)

Interpretation of Table 7: The company is investing huge amount in social responsibility activities by providing education & health care facilities. Number of distributors and dealers has increased to segment the market according to the consumers.

6. Natural capital: In this capital, Tata steel considers all renewable and non-renewable environmental resources such as land, water, forests, biodiversity etc. Company contributes in attaining environmental balance by maintaining biodiversity and eco - system health which helps to create and sustain value in the long run.

Interpretation of Table 8: Water recycled, waste utilisation % in increasing. Company has planted 4, 00,000 trees till 2015-16. Company has assessed 8 raw material location in bio diversity assessment and for this, a policy has been launched.

Chart 1

Shows the trend of profit for 5 years which is first decreased in 2012-13 then increased in 2013-14, then again decreased in 2014-15 and is in the recovering phase in 2015-16.

Chart 2

Shows the trend of return of average capital employed of 5 years. It shows fluctuating and presently decreasing trend in terms of return on average capital employed.

Table 8: Various elements of Natural capital

Elements	2011-12	2012-13	2013-14	2014-15	2015-16
Water withdrawn from surface sources (mn/$m^{3)}$	-	-	77	74	63
Water consumption in Jameshedpur steel works (m^3 /tcs)	-	5.92	5.57	5.54	4.39
Water recycled and reused (mn/$m^{3)}$	-	-	17	21	26
CO_2 Emission intensity(t CO_2/tcs	2.52	2.53	2.43	2.42	2.26
Energy intensity in Jameshedpur steel works (GJ/tcs)	-	-	25.2	25.2	24.1
% of solid waste utilisation	75	84	78	78.3	81
Tree plantation (million)cumulative	-	-	—	0.3	0.4

Source: author's compilation (annual reports of Tata Steel)

Here are some charts for depicting value creation in various forms :

Chart 1. Value Creation In Terms of Profit After Tax

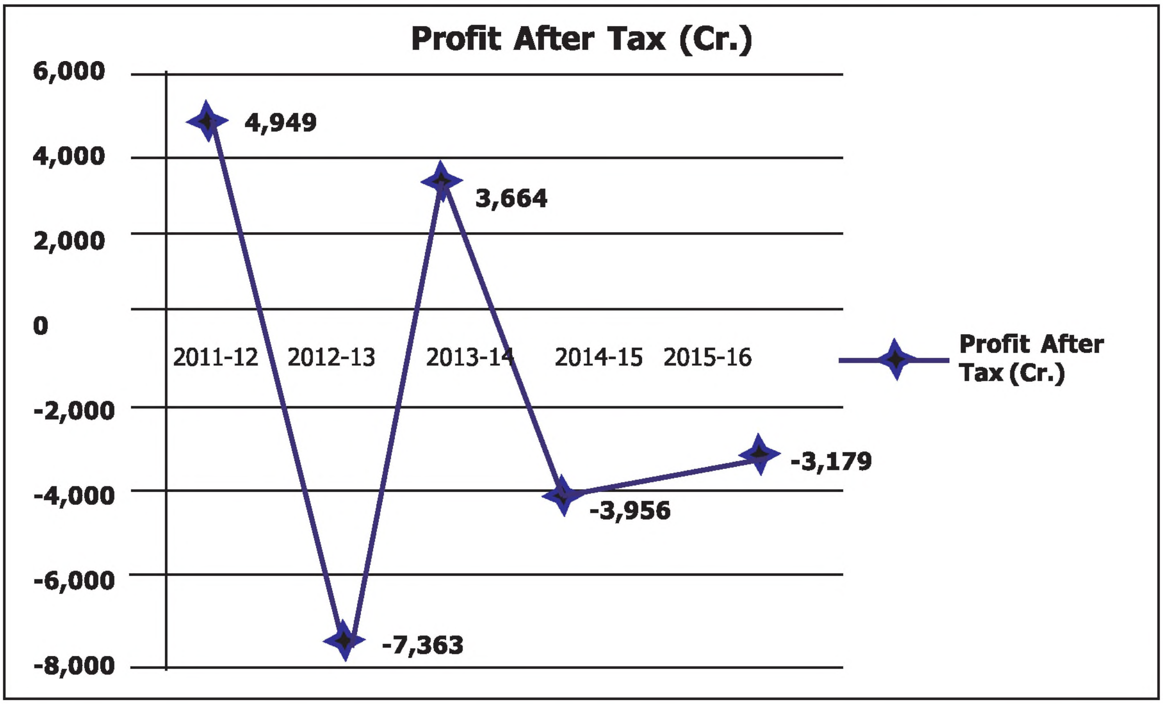


Chart 2. Value Creation in Terms of Return on Capital Employed

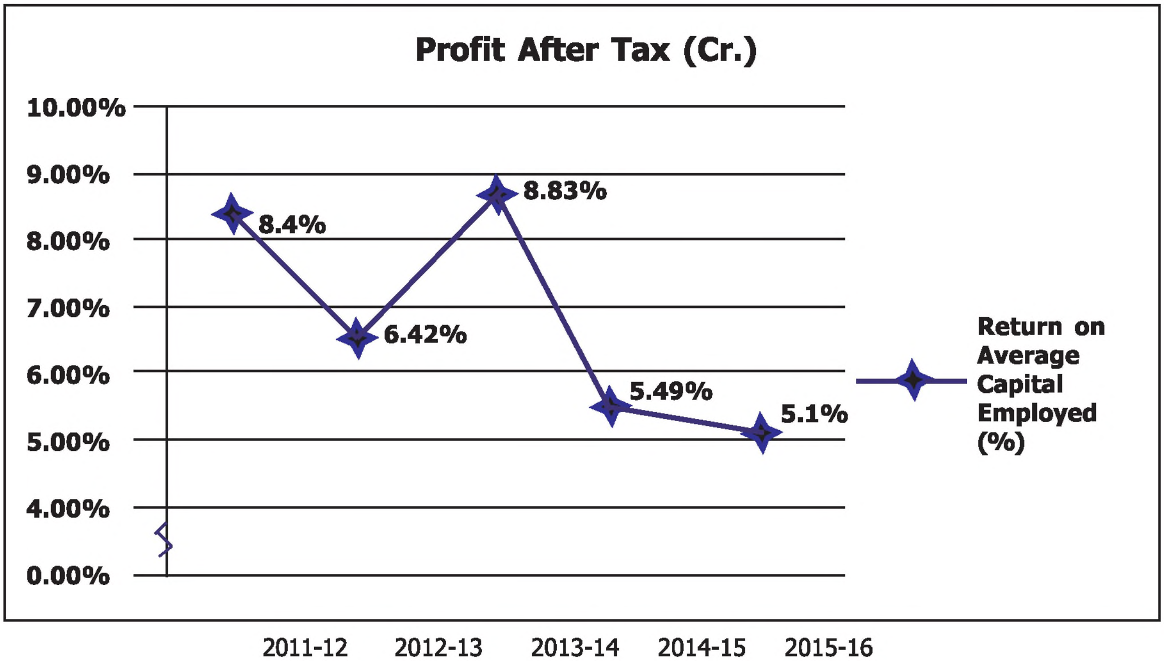
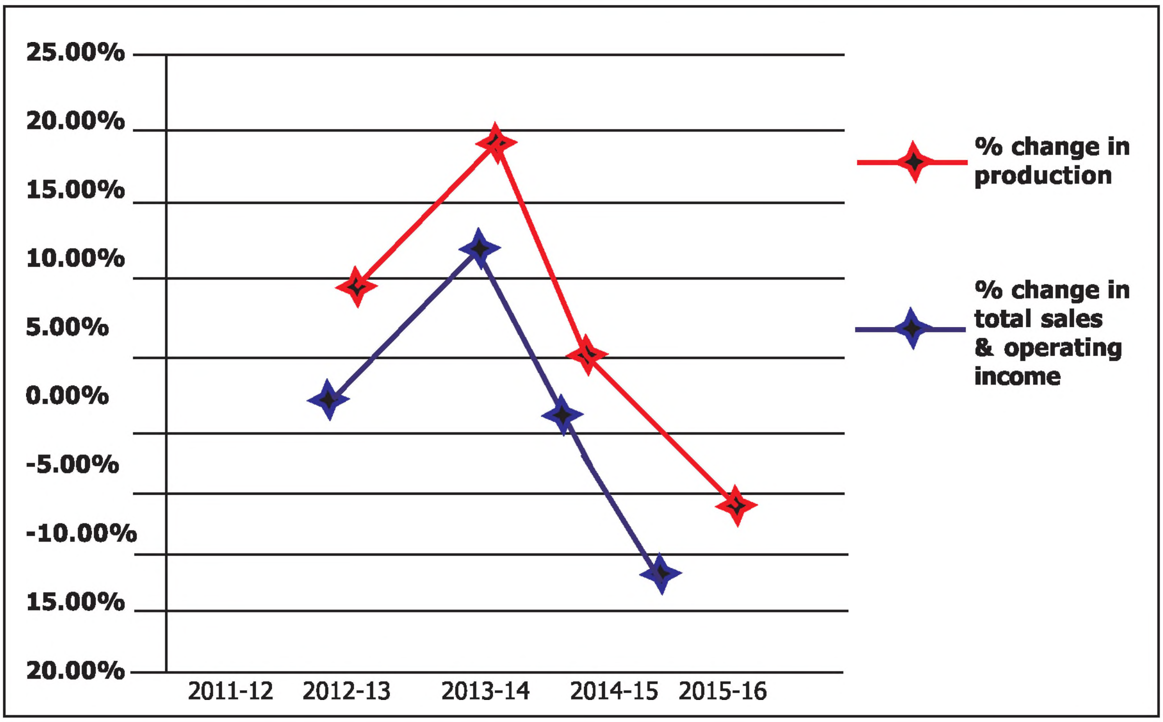


Chart 3: Value Creation in Terms of Sales, Operating Income and Production



Source : Author's Compilation From Table 1.

For value creation in the form of medium and long terms goals, company has decided some strategic objectives in 2015-16 which are as follows:

Source : Author's Compilation From Table 1.

Table 9 : Objective, Strategy and Capital Impacted

Medium & long term strategic objectives	**Strategy followed**	**Capital impacted**
Maintain leadership position in chosen segments	Build and maintain the leadership position in new and existing chosen segments	Financial, Social & Relationship, Manufacturing
Improve product mix and service differentiation	Timely commissioning and faster ramp up of Kalinganagar Plant Phase 1	Manufacturing, Financial
Maintain leadership position in profitability	Achieve operating profit as per plan Shikhar - 25 , double the pace of improvement, increase employee productivity through structural improvements	Financial, Manufacturing, Human Capital
Strive for raw materialself-sufficiency and extract value from waste	Ramp up of Khond bond mine (Iron Ore) and West Bokaro mine (Coal)	Financial, Manufacturing, Natural Capital
Organic growth at 25% below baseline costs	On - going projects related to savings from approved capex	
Leverage digital across value chain	Identify and prioritise digital opportunities	Financial, Manufacturing Intellectual, Manufacturing
Zero injury to workforce – Committed to Zero	Initiate safety leadership development, eliminate rail and road incidents, eliminate contractor induced risks	Human Capital, Social and Relationship
Be the steel industry benchmark in India for environment performance	Installation / augmentation of fugitive dust extraction/ suppression systems, solutions for solid waste utilisation, achieve a Zero Water Discharge regime	Natural Capital, Social and Relationship, Financial
Deliver impact based CSR	Improve access to health, education and livelihood opportunities for communities in the operational areas	Social and Relationship
Employer of choice in the metal and mining industry in India	Diversity and Inclusion, capability building through learning & development	Human Capital, Social and Relationship

Source : Integrated Report 2015-16 of Tata Steel

Conclusion

Revenue drivers of Tata Steel are (1) Steel value chain which offers hot, cold ,Galvanized sheets, steel products, tubes & wires etc. (2)Raw materials value chain which includes Ferro alloys and minerals (3)other businesses comprise of cranes, structural, bearings, agriculture tools, mechanised implements etc. Market segments of Tata Steel are construction, automotive, general engineering, industries, agriculture etc.

Manufactured capital contributed towards enhancement of production and sales of crude steel, hot metal etc. By the continuing efforts of Tata Steel, Jamshedpur and Kalinganagar steel plant expanded their volume and product portfolio. For measuring the achievement and outcomes of the company, company has identified KPI (Key performance Indicators) for all objectives at all levels. Year 2013-14 is the best period among all the financial years. In 2014-15 there is sharp decrease in profit and return on invested capital. There are various reasons for such decline in which global market condition, competition, the cost of material and other expense which played a foremost role in creating value. The primary purpose of an integrated report is to explain about how an organisation creates value over time to the providers of financial capital. In integrated reporting, only material aspects are needed to be disclosed. Tata Steel has removed the downside of lengthy financial statement by applying integrated reporting and now report has become more focused about business value.

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