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**A Study on Working Capital Management and Profitability Analysis of Selected Steel Companies in India**

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**ABSTRACT**

An efficient control over the working capital is one of the most important considerations of the financial management of any business undertaking. Working capital is an integral part of the total financial management. Management of current assets is called as working capital. Management of short-term assets and liabilities warrants a careful investigation since the working capital management plays an important role for the firm's profitability and risk as well as its value. The optimal level of working capital is determined to a large extent by the methods adopted for the management of current assets and liabilities. It requires continuous monitoring to maintain proper level in various components of working capital i.e. cash receivables, inventory and payables etc.

**KEY WORDS:**

Cash position ratio, Current ratio, Fixed Assets ratio, Gross profit, Liquidity ratio

**INTRODUCTION:**

Every business needs funds for two purposes-for its establishment and to carry out its day –to – day operations. Long – term funds are required to create production facilities through purchase of fixed assets such as plant and machinery, land, building, furniture, etc. investments in these assets represent that part of firm's capital which is blocked on a permanent fixed basis and is called fixed capital. Funds are also needed for short – term purposes for the purchases of raw materials, payment of wages and other day- to- day expenses, etc. these funds are known as working capital. In simple words, working capital refers or that part of the firm's capital which is required for financing short term or current assets such as cash, marketable securities, debtors and inventories. Funds, thus, invested in current assets keep revolving fast and are being constantly converted into cash and this cash flow out again in exchange for other current assets. The networking capital of a firm may be positive or negative.

Hence, it is also known as revolving or circulating capital. The circular flow concept of working capital is based upon this operating or working capital cycle of a firm. The cycle starts with the purchase or raw material and other resources and ends with the realisation of cash from the sales of finished goods. The speed/time duration required to complete one cycle determines the requirements of working capital - longer the period of cycle, larger is the requirement of working capital.

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### **OBJECTIVES OF THE STUDY**

- To study the financial position of the selected steel companies.
- To review the profitability position of the Indian select steel companies.
- To compare the financial performance and find the growth trend of the steel companies.
- To make necessary suggestions and recommendations.

### **LIMITATIONS OF THE STUDY**

- This study mainly depends on the secondary data i.e., balance sheet of selected steel companies (Tata Steel, Liodys Steel, Steel Authority of India (Sail), Jsw Steel, Kalyani Steel).
- Operating and financial performance of the companies is analysed using 5years data alone. The study does not consider the time value of money.
- The validity of analysis and suggestion depends on the financial statements and reports alone, provided by the company.

### **RESEARCH METHODOLOGY**

#### **RESEARCH DESIGN**

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It constitutes the blueprint for the collection, measurement and analysis of data.

#### **Secondary Data:**

Main source of secondary data was Annual report of the selected steel companies, standard text books, relevant journals, reports, magazines and steel companies' websites.

#### **Period of Study:**

This research study covers a period of 5 years from 2008 to2012.

#### **TOOLS USED FOR THE ANALYSIS**

The following tools were adapted to analysis the working capital management.

#### **ACCOUNTING TOOLS AND TECHNIQUES USED ARE THE FINANCIAL RATIOS SUCH AS:**

1. Current ratio
2. Fixed Assets ratio
3. Cash position ratio
4. Liquidity ratio

#### COMPANIES SELECTED FOR STUDY

- SAIL
- Tata steel
- Kalyani steel
- Lloyds
- JSW steel

#### REVIEW OF THE LITERATURE

- Sagan in his paper, perhaps the first theoretical paper on the theory of working capital management, emphasized the need for management of working capital accounts and warned that it could vitally affect the health of the company. He realized the need to build up a theory of working capital management. He discussed mainly the role and functions of money manager inefficient working capital management. Sagan pointed out the money manager's operations were primarily in the area of cash flows generated in the course of business transactions.
- Kamta Prasad Singh, Anil Kumar Sinha and Subas Chandra Singh, examined various aspects of working capital management in fertilizer industry in India during the period 1978-79 to 1982-93. Sample included public sector unit, Fertilizer Corporation of India Ltd. (FCI) and its daughter units namely Hindustan Fertilizers Corporation Ltd., the National Fertilizer Ltd., Rashtriya Chemicals and Fertilizers Ltd. and Fertilizer (Projects and Development) India Ltd. and comparing their working capital management results with
- Welter, in his study, stated that working capital originated because of the global delay between the moment expenditure for purchase of raw material was made and the moment when payment were received for the sale of finished product. Delay centres are located throughout the production and marketing functions.
- Lambrix and Singhvi, adopting the working capital cycle approach to the working capital management, also suggested that investment in working capital could be optimized and cash flows could be improved by reducing the time frame of the physical flow from receipt of raw material to shipment of finished goods, *i.e.* inventory management, and by improving the terms on which firm sells goods as well as receipt of cash.

**DATA ANALYSIS AND INTERPRETATION**

**Current Ratio**

**Table no: 1.1 Financial Ratio for Select Steel Companies**

(Amount in crore)

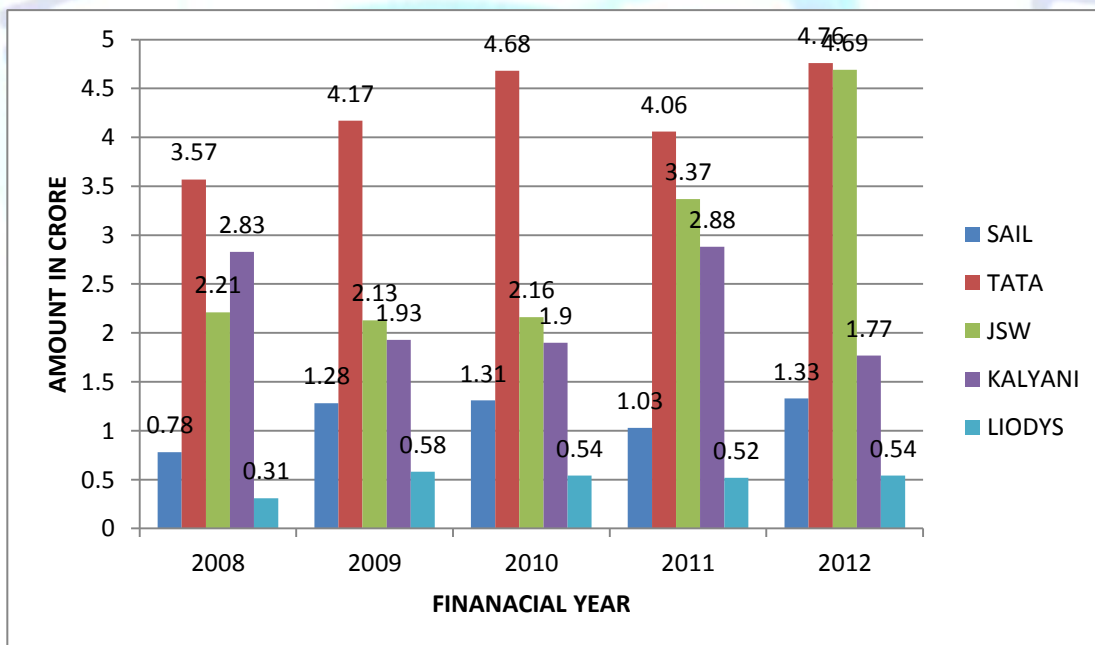
Company/year	SAIL	TATA	JSW	KALYANI	LIODYS
2008	0.78	3.57	2.21	2.83	0.31
2009	1.28	4.17	2.13	1.93	0.58
2010	1.31	4.68	2.16	1.9	0.54
2011	1.03	4.06	3.37	2.88	0.52
2012	1.33	4.76	4.69	1.77	0.54

Source: Secondary data

**Interpretation**

The above table shows that the current ratio of selected steel company, highest value of 4.76 was observed to current ratio of TATA and lowest value of 0.31 for current ratio of Lloyds and other selected steel companies are maintaining moderate levels in current ratio, sail 0.78, kalyani 1.9, jsw 2.13, respectively. And highest variability of 2.88 was observed in current ratio of jsw steel, which value a higher degree of variability and lowest variability of 0.31 was observed in current ratio of TATA, which a lower degree of variability. The current ratio of TATA 4.69 was the highest with 4.68 TATA and the lowest variability of 0.31 in the current ratio of Lloyds.

**Chart No: 1.1 (CURRENT RATIO)**



**Fixed Assets Ratio**

**TABLE NO: 1.2 Financial Ratio for Select Steel Companies**  
(AMOUNT IN CRORE)

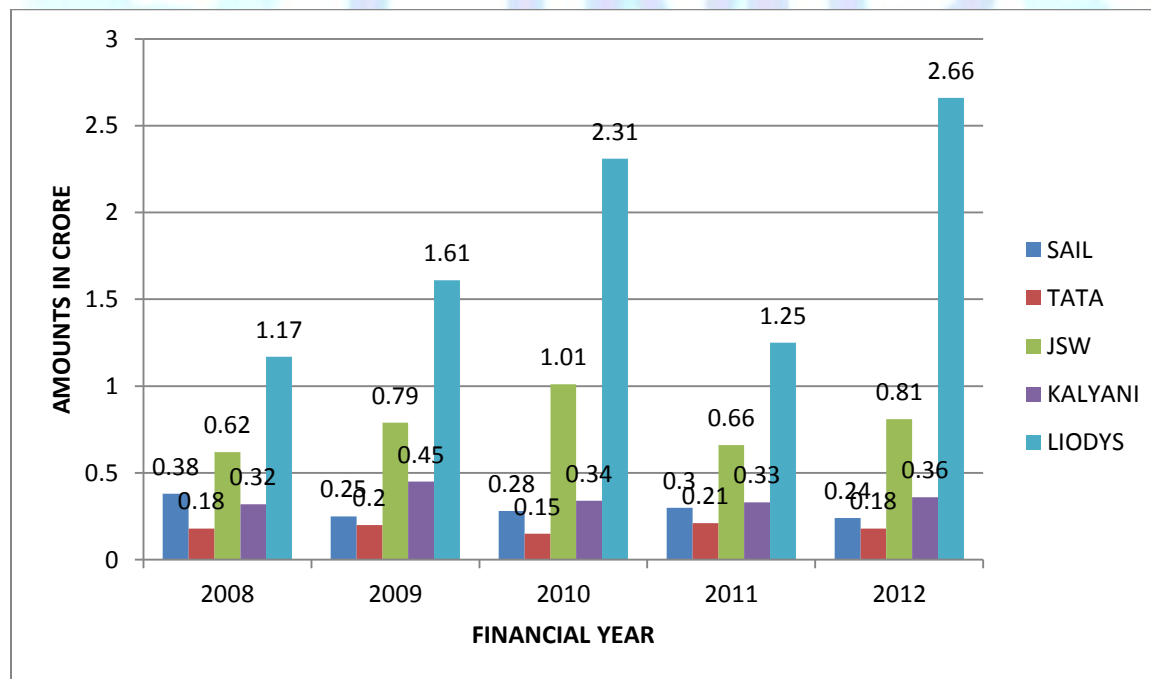
Company/year	SAIL	TATA	JSW	KALYANI	LIODYS
2008	0.38	0.18	0.62	0.32	1.17
2009	0.25	0.2	0.79	0.45	1.61
2010	0.28	0.15	1.01	0.34	2.31
2011	0.3	0.21	0.66	0.33	1.25
2012	0.24	0.18	0.81	0.36	2.66

Source: Secondary data

**Interpretation**

The above Table shows that the fixed assets ratio of selected steel the highest value of 2.66 was observed to FA ratio of Lioyds and lowest value of 0.2 for FA ratio of TATA and other selected steel companies are maintaining middle level jsw 1.01, kalyani 0.45, and jsw 0.38 respectively. Highest variability of 2.66 was observed in FA ratio of lioyds steel, which value, a higher degree of variability and the lower of 0.2 was observed tata steel.

**Chart No: 1.2 Fixed Assets Ratio**



**Cash Position Ratio**

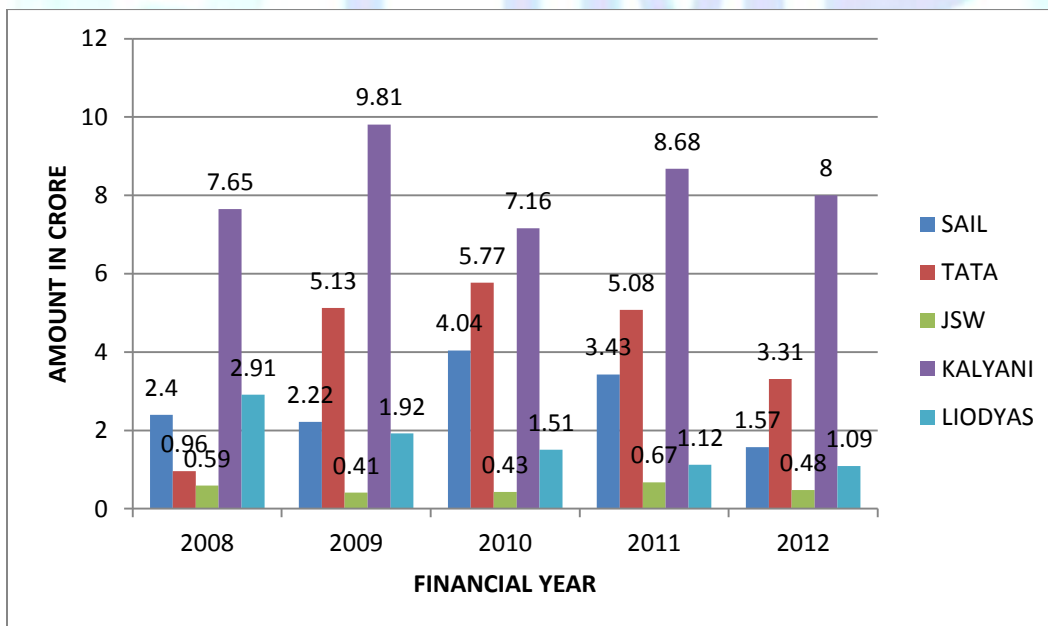
**TABLE NO: 1.3 Financial Ratio for Select Steel Companies**  
(AMOUNT IN CRORE)

Company/ year	SAIL	TATA	JSW	KALYANI	LIODYS
2008	2.4	0.96	0.59	7.65	2.91
2009	2.22	5.13	0.41	9.81	1.92
2010	4.04	5.77	0.43	7.16	1.51
2011	3.43	5.08	0.67	8.68	1.12
2012	1.57	3.31	0.48	8	1.09

**Source: Secondary data**  
**Interpretation**

The above Table shows that the values to Cash position ratio of selected steel the highest value of 9.81 was observed to cash position ratio of kalyani and lowest value of 0.41 for cash position ratio of jsw and other selected steel companies are maintaining middle level TATA 5.77, SAIL 4.04, Lloyds, respectively. Highest variability of 9.81 was observed in cash position ratio of jsw steel, which value, a higher degree of variability and the lower of 0.41 was observed tata steel.

**Chart No: 1.3 Cash Position Ratio**



**Liquid Ratio**

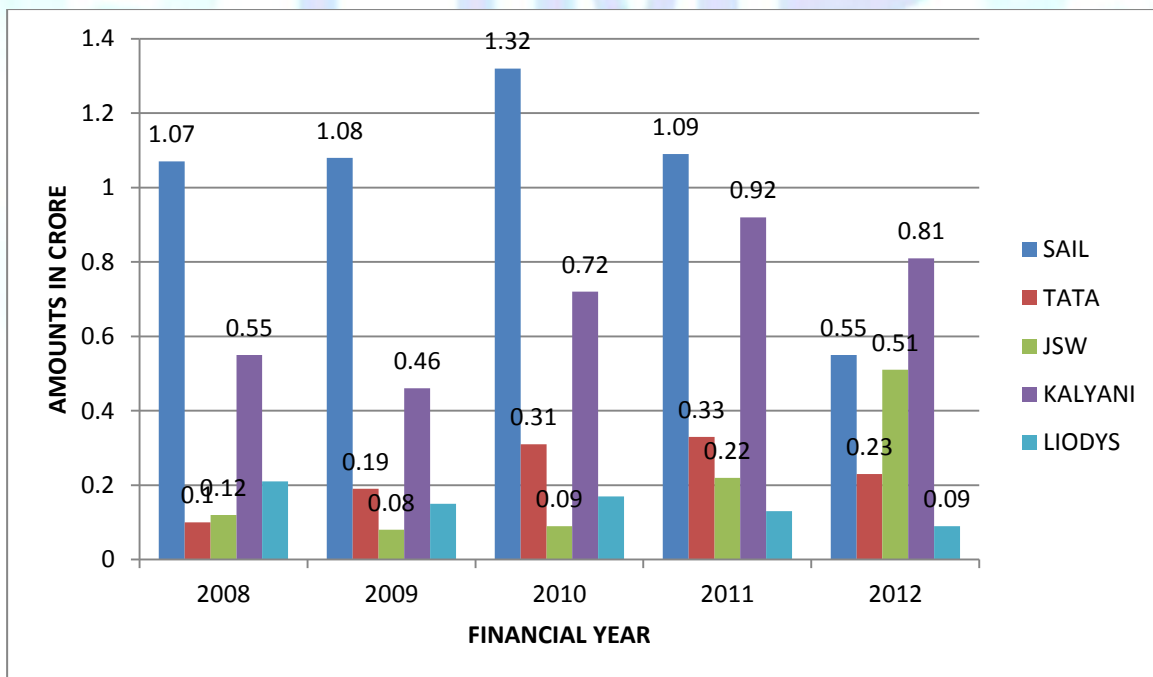
**TABLE NO: 1.4 Financial Ratio for Select Steel Companies**  
(AMOUNT IN CRORE)

Company/year	SAIL	TATA	JSW	KALYANI	LIODYS
2008	1.07	0.1	0.12	0.55	0.21
2009	1.08	0.19	0.08	0.46	0.15
2010	1.32	0.31	0.09	0.72	0.17
2011	1.09	0.33	0.22	0.92	0.13
2012	0.55	0.23	0.51	0.81	0.09

Source: Secondary data  
Interpretation

The above Table shows that the values to Cash position ratio of selected steel the highest value of 1.32 was observed to cash position ratio of SAIL and lowest value of 0.08 for cash position ratio of SAIL and other selected steel companies are maintaining middle level KAYANI 0.92, TATA 0.33, LLOYDS 0.21, respectively. Highest variability of 1.32 was observed in cash position ratio of SAIL steel, which value, a higher degree of variability and the lower of 0.08 was observed JSW steel.

**Chart No: 1.4 Liquid Ratio**



**Working Capital Turnover Ratio**

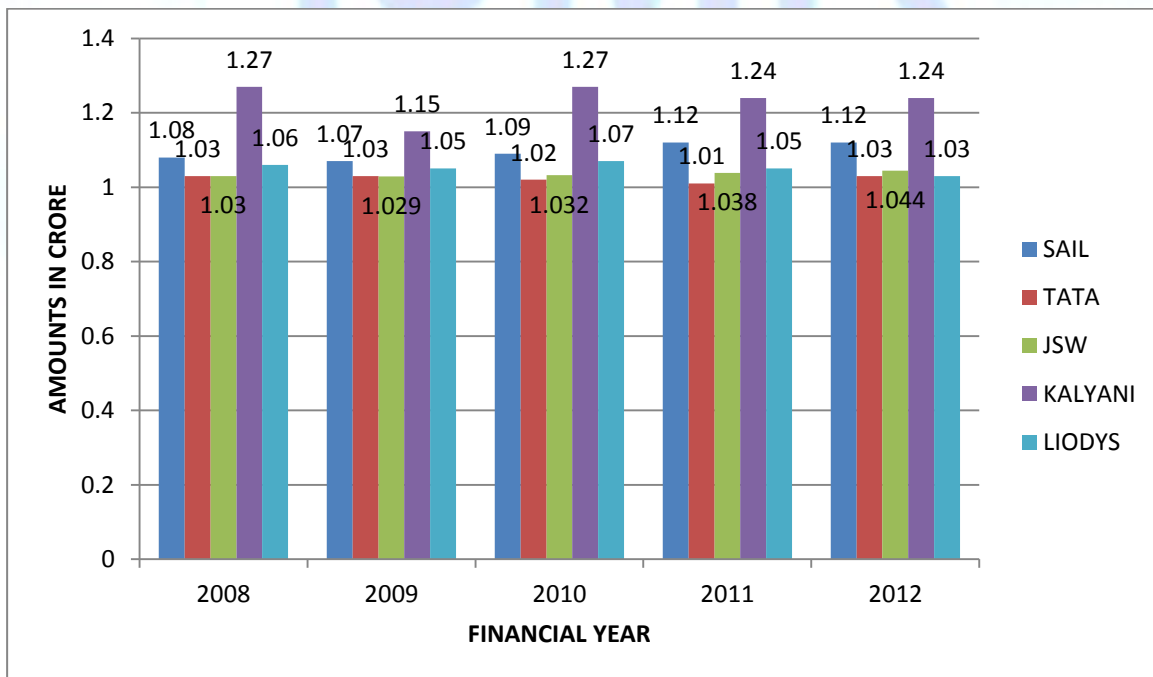
**TABLE NO: 1.5 Turnover Ratio for Select Steel Companies**  
(AMOUNT IN CRORE)

(Company/year)	SAIL	TATA	JSW	KALYANI	LIODYS
2008	1.08	1.03	1.03	1.27	1.06
2009	1.07	1.03	1.029	1.15	1.05
2010	1.09	1.02	1.032	1.27	1.07
2011	1.12	1.01	1.038	1.24	1.05
2012	1.12	1.03	1.044	1.24	1.03

**Source: Secondary data**  
**Interpretation**

The above Table shows that the values to working capital turnover ratio of selected steel the highest value of 1.27 was observed to working capital turnover ratio of KALYANI and lowest value of 1.02 for working capital turnover ratio of TATA steel and other selected steel companies are maintaining middle level SAIL 1.12, LIOYDS 1.06, JSW 1.044, respectively. Highest variability of 1.27 was observed in working capital turnover ratio of KALYANI steel, which value, a higher degree of variability and the lower of 1.02 was observed TATA steel

**Chart No: 1.5 Working Capital Turnover Ratio**





**Operating Profit Ratio**

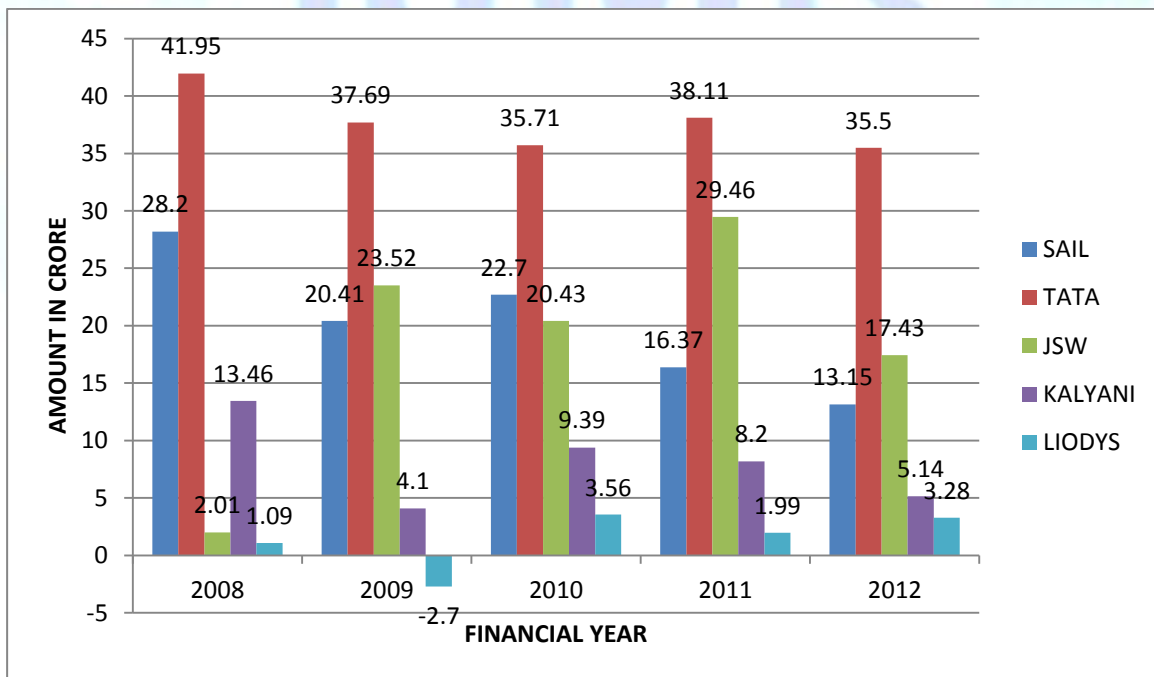
**TABLE NO: 1.6 Profitability Ratio for Select Steel Companies**  
(AMOUNT IN CRORE)

(Company/ year	SAIL	TATA	JSW	KALYANI	LIODYS
2008	28.2	41.95	2.01	13.46	1.09
2009	20.41	37.69	23.52	4.1	-2.7
2010	22.7	35.71	20.43	9.39	3.56
2011	16.37	38.11	29.46	8.2	1.99
2012	13.15	35.5	17.43	5.14	3.28

Source: Secondary data  
Interpretation

The above Table shows that the OP ratio of selected steel the highest value of 41.95 was observed to OP ratio of TATA and lowest value of -2.7 for OP ratio of LIOYDS and other selected steel companies are maintaining middle level JSW 29.46, SAIL28.2, KALYANI13.46, respectively. Highest variability of 41.95 was observed in OP ratio of TATA steel, which value, a higher degree of variability and the lower of -2.7 was observed LOYDS steel.

**Chart No: 1.6 Operating Profit Ratio**



**Administrative Expenses Ratio**

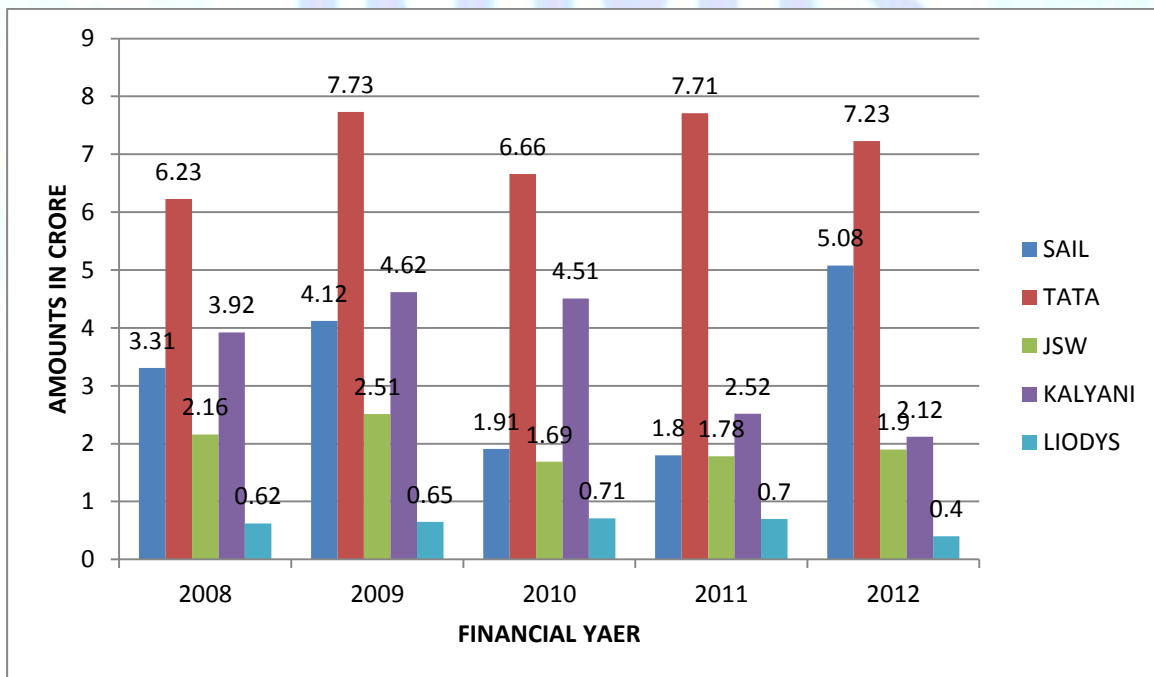
**TABLE NO: 1.7 Profitability Ratio for Select Steel Companies**  
(AMOUNT IN CRORE)

(Company/y ear	SAIL	TATA	JSW	KALYANI	LIODYS
2008	3.31	6.23	2.16	3.92	0.62
2009	4.12	7.73	2.51	4.62	0.65
2010	1.91	6.66	1.69	4.51	0.71
2011	1.8	7.71	1.78	2.52	0.7
2012	5.08	7.23	1.9	2.12	0.4

Source: Secondary data  
Interpretation

The above Table shows that the administrative expense ratio of selected steel the highest value of 7.71 was observed to administrative expense ratio of TATA and lowest value of 0.4 for administrative expense ratio of LIOYDS and other selected steel companies are maintaining middle level SAIL 5.08, KALYANI 4.62,JSW 2.51, respectively. Highest variability of 7.71 was observed in administrative expense ratio of TATA steel, which value, a higher degree of variability and the lower of 0.4 was observed LIOYDS steel.

**Chart No: 1.7Administrative Expenses Ratio**



**TABLE NO: 1.8 Annual Growth Rate of Select Steel Companies in India, as on 2008**

(AMOUNT IN CRORE)

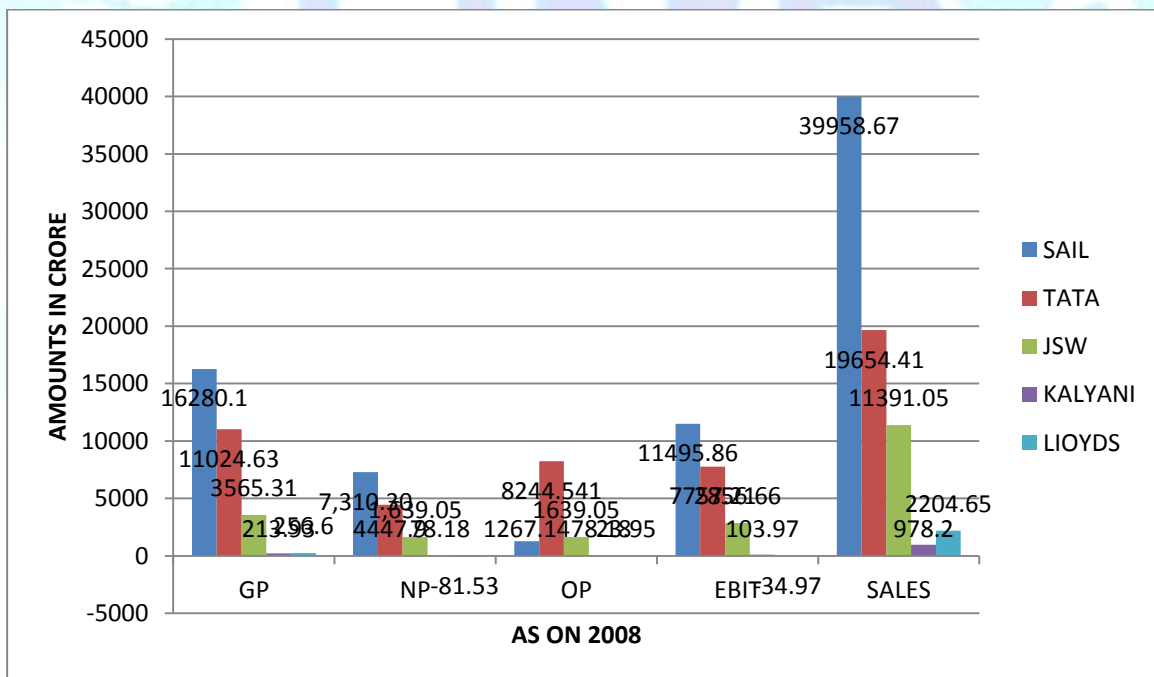
Particulars / company	SAIL	TATA	JSW	KALYANI	LIOYDS
GP	16280.1	11024.63	3565.31	213.93	256.6
NP	7,310.3	4447.90	1,639.05	78.18	-81.53
OP	1267.14	8244.541	1639.05	78.18	23.95
EBIT	11495.86	7757.21	2856.66	103.97	-34.97
SALES	39958.67	19654.41	11391.05	978.20	2204.65

Source: Secondary data

**Interpretation**

The table shows, growth rate of selected steel companies in India to the various ratio analyses. SAIL has achieved fast growth rate past one year’s among the selected steel company and high annual growth rate of 39958.67. The lowest growth rate of 778.20 in expenses was achieved by KALYANI steel. The growth rate of JSW in profit was low. And SAIL has achieved highest growth in NP (7,310.3), jsw cannot able to maintain lowest expenses growth rate compared with other selected steel companies it will lead to create some financial crisis in future.

**Chart No: 1.8 Annual Growth Rate of Select steel Companies in India as an 2008**



**TABAL NO: 1.9 Annual Growth Rate of Select Steel Companies in India, as on 2009**  
(AMOUNT IN CRORE)

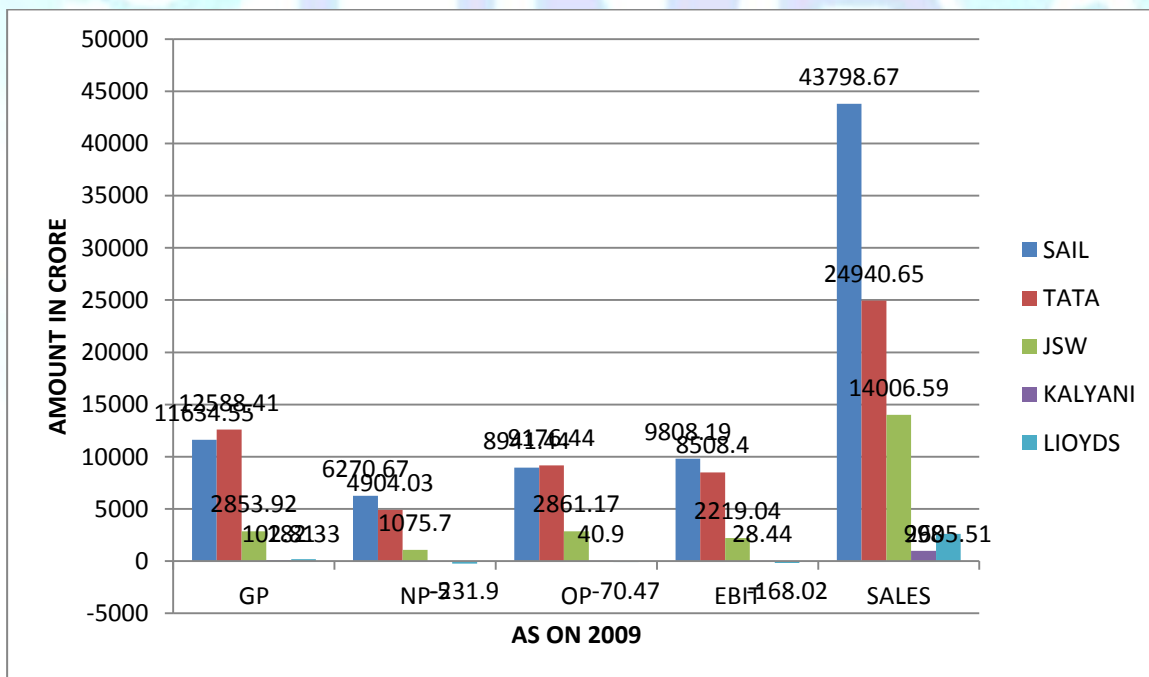
Particulars / company	SAIL	TATA	JSW	KALYANI	LIOYDS
GP	11634.55	12588.41	2853.92	102.81	182.33
NP	6270.67	4904.03	1075.70	-05	-231.90
OP	8941.44	9176.44	2861.17	40.90	-70.47
EBIT	9808.19	8508.40	2219.04	28.44	-168.02
SALES	43798.67	24940.65	14006.59	998.00	2605.51

Source: Secondary data

**Interpretation**

The table shows, growth rate of selected steel companies in India to the various ratio analyses. SAIL has achieved fast growth rate past one year among the selected steel company and high annual growth rate of (43798.67). The lowest growth rate of (998.00) in expenses was achieved by KALYANI steel. The growth rate of KALYANI in profit was low. And TATA has achieved second highest growth in NP (4904.03), LIOYDS cannot able to maintain lowest expenses growth rate compared with other selected steel companies.

**Chart No: 1.9 Annual Growth Rate of Select steel Companies in India as an 2009**



**TABLE NO: 1.10 Annual Growth Rate of Select Steel Companies in India, as on 2010**  
(AMOUNT IN CRORE)

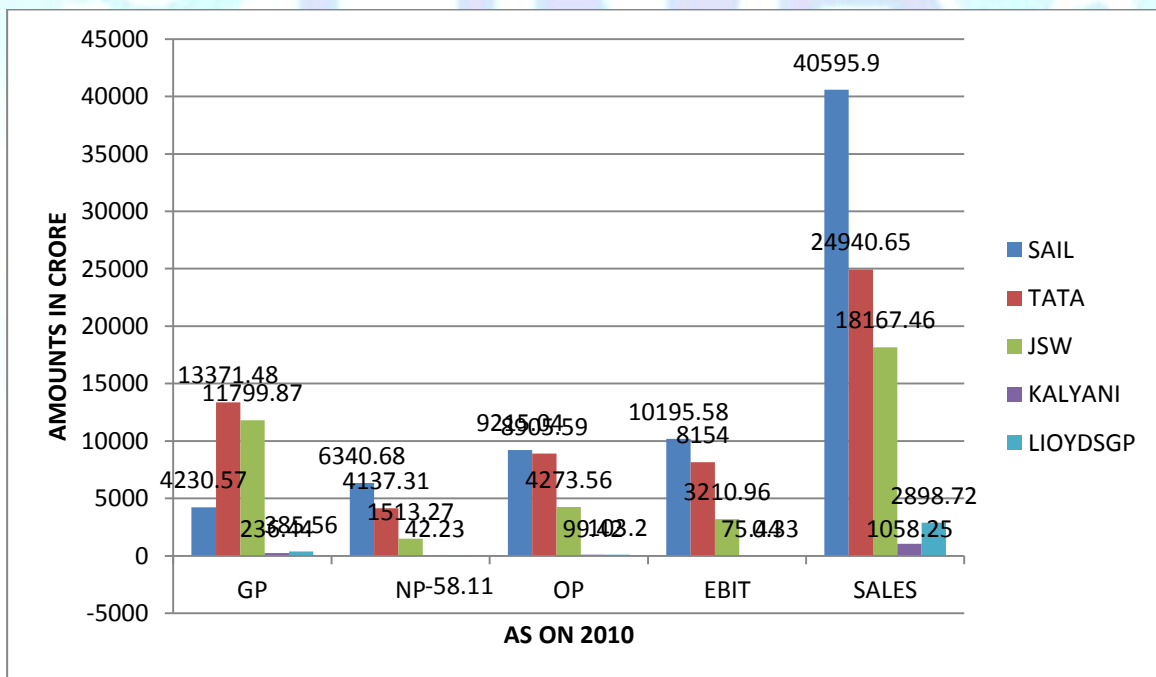
Particulars / company	SAIL	TATA	JSW	KALYANI	LIOYDS
GP	4230.57	13371.48	11799.87	236.44	385.56
NP	6340.68	4137.31	1513.27	42.23	-58.11
OP	9215.04	8905.59	4273.56	99.42	103.20
EBIT	10195.58	8154.00	3210.96	75.44	0.33
SALES	40595.90	24940.65	18167.46	1058.25	2898.72

Source: Secondary data

**Interpretation**

The table shows, growth rate of selected steel companies in India to the various ratio analyses. SAIL has achieved fast growth rate past one year among the selected steel company and high annual growth rate of (40595.90). The lowest growth rate of (1058.25) in expenses was achieved by KALYANI steel. The growth rate of KALYANI in profit was low. And TATA has achieved second highest growth in GP (4137.31), And JSW has achieved third highest growth in NP (11799.87), LIOYDS cannot able to maintain lowest expenses growth rate compared with other selected steel companies.

**Chart No: 1.10 Annual Growth Rate of Select steel Companies in India as an 2010**



**TABLE NO: 1.11 Annual Growth Rate of Select Steel Companies in India, as on 2011**  
(AMOUNT IN CRORE)

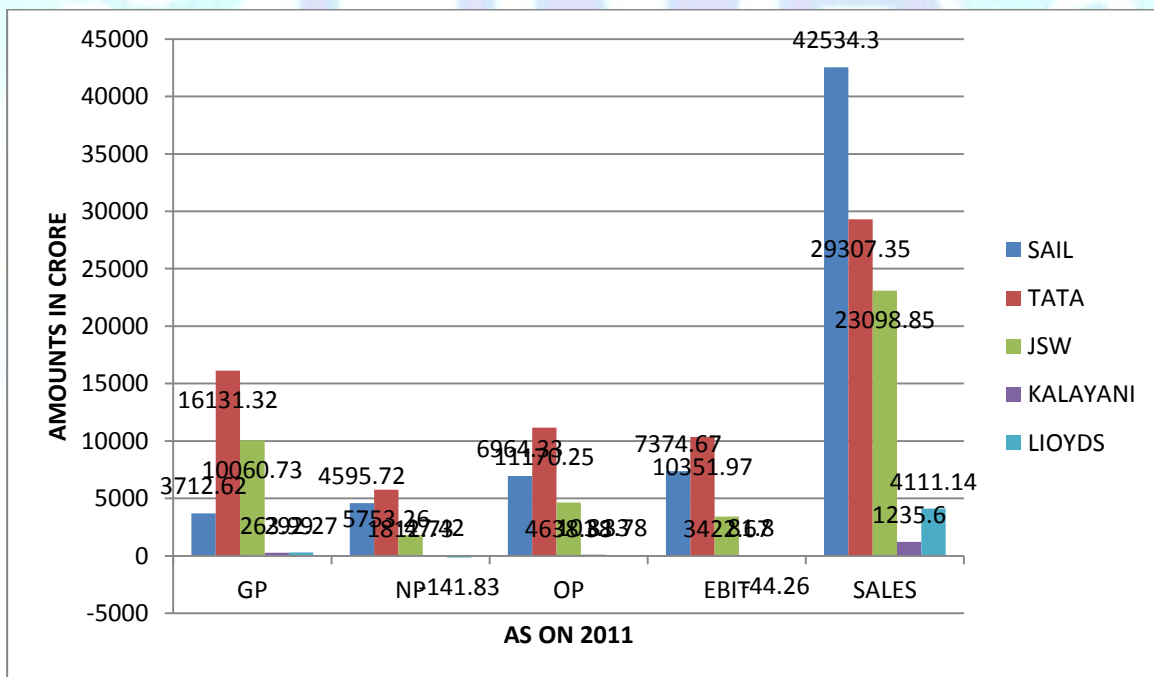
Particulars / company	SAIL	TATA	JSW	KALYANI	LIOYDS
GP	3712.62	16131.32	10060.73	263.99	292.27
NP	4595.72	5753.26	1812.73	47.42	-141.83
OP	6964.33	11170.25	4638.38	101.33	81.78
EBIT	7374.67	10351.97	3422.67	81.80	-44.26
SALES	42534.30	29307.35	23098.85	1235.60	4111.14

Source: Secondary data

**Interpretation**

The table shows, growth rate of selected steel companies in India to the various ratio analyses. SAIL has achieved fast growth rate past one year among the selected steel company and high annual growth rate of (42534.30). The lowest growth rate of (1235.60) in expenses was achieved by KALYANI steel. The growth rate of KALYANI in profit was low. And TATA has achieved highest growth in NP (5753.26), And JSW has achieved third highest growth in OP (4638.38), LIOYDS cannot able to maintain lowest expenses growth rate compared with other selected steel companies.

**Chart No: 1.11 Annual Growth Rate of Select steel Companies in India as an 2011**



**TABLE NO: 1.12 Annual Growth Rate of Select Steel Companies in India, as on 2012**  
(AMOUNT IN CRORE)

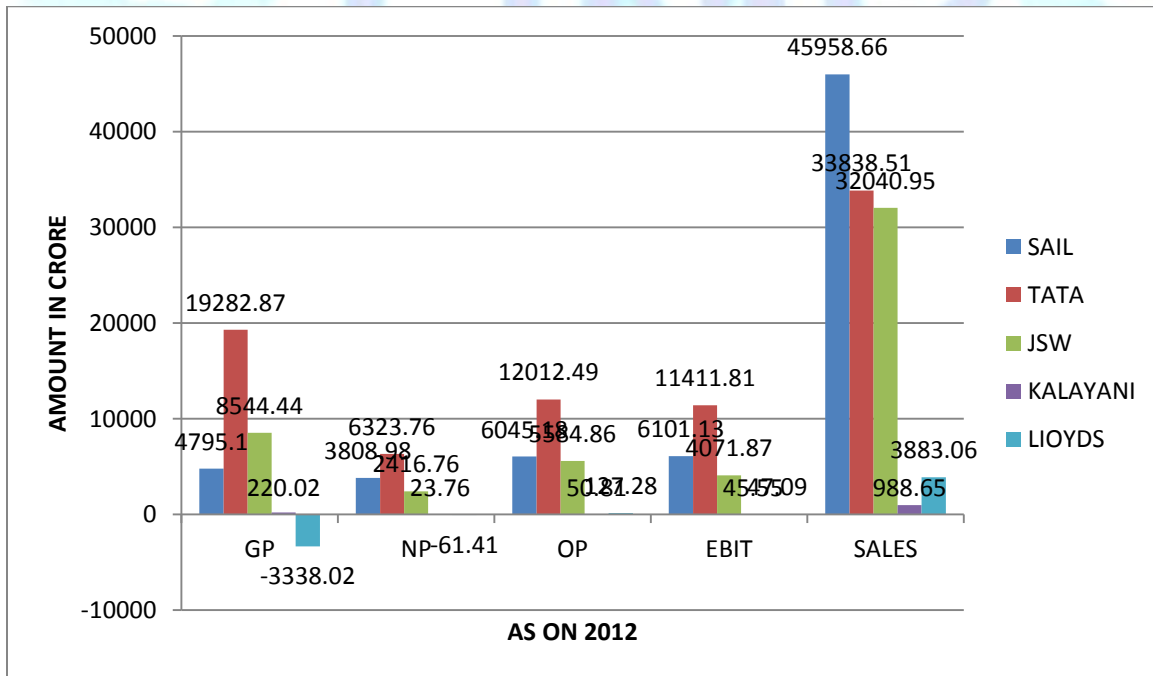
PARTICULARS / COMPANY	SAIL	TATA	JSW	KALAYANI	LIOYDS
GP	4795.1	19282.87	8544.44	220.02	-3338.02
NP	3808.98	6323.76	2416.76	23.76	-61.41
OP	6045.18	12012.49	5584.86	50.81	127.28
EBIT	6101.13	11411.81	4071.87	45.55	47.09
SALES	45958.66	33838.51	32040.95	988.65	3883.06

Source: Secondary data

**Interpretation**

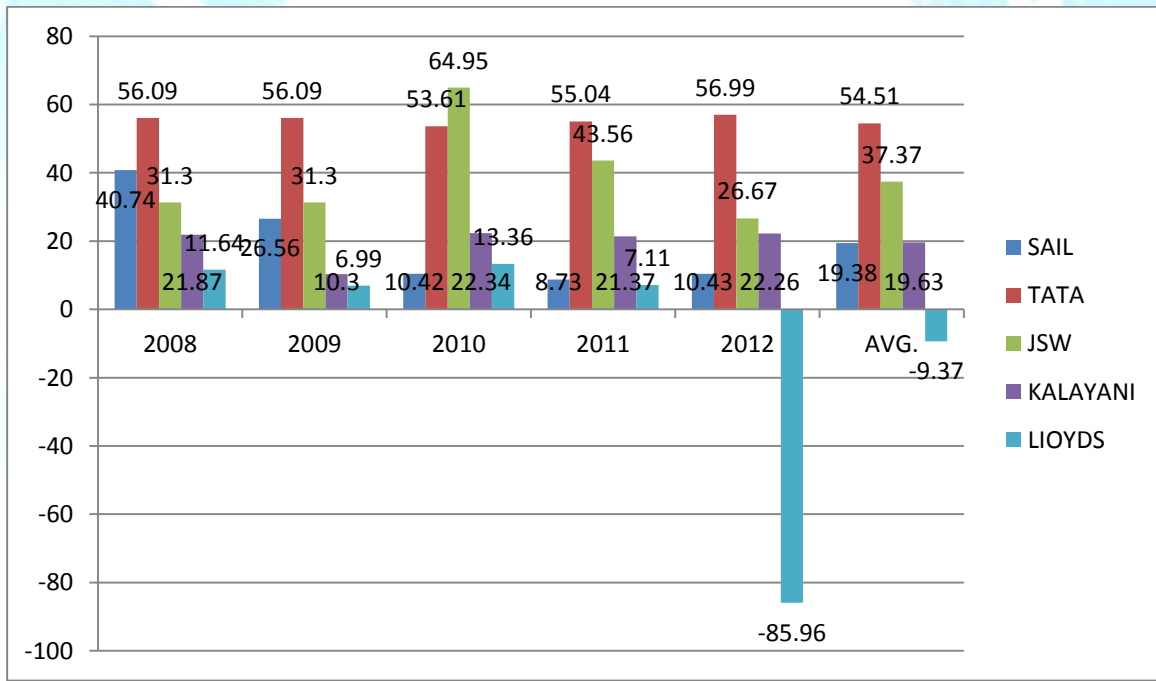
The table shows, growth rate of selected steel companies in India to the various ratio analyses. SAIL has achieved fast growth rate past one year among the selected steel company and high annual growth rate of (45958.66). The lowest growth rate of (988.65) in expenses was achieved by KALAYANI steel. The growth rate of LIOYDS in profit was low. And TATA has achieved highest growth in NP (6323.76), LIOYDS cannot able to maintain lowest expenses growth rate compared with other selected steel companies it will lead to create some financial crisis in future.

**Chart No: 1.12 Annual Growth Rate of Select steel Companies in India as an 2012**



**5 year growth rate of 5 companies(2008-12)**  
(in percentage)

Year/ company	2008	2009	2010	2011	2012	Average
SAIL	40.74	26.56	10.42	8.73	10.43	19.38
TATA	56.09	56.09	53.61	55.04	56.99	54.51
JSW	31.30	31.30	64.95	43.56	26.67	37.37
KALYANI	21.87	10.30	22.34	21.37	22.26	19.63
LIOYDS	11.64	6.99	13.36	7.11	-85.96	-9.37



**FINDINGS**

1. The highest operating profit was earned by TATA steel 35.5 % ( 2012). Decrease in indirect expense and increase in sales is responsible for higher operating profit ratio. The rate of decrease expenses was higher compared to increase in sales, which is a sign of good operational efficiency.



2. Lloyds's NP ratio is not satisfactory for the business, because its average of -1.58(2012) % is not worthwhile for the organization the NP ratio of TATA of 18.69 %( 2012) is indicated the better performance.
3. The operating expenses ratio of selected steel companies in India are good, because operating expenses ratio of mean range from 41.95 %(2008) to 35.5 %(2012) only to sales hereafter found that the TATA operating expenses was the lower at 1.56% only to sales. It indicates, the company was able to control the administration and selling expenses.
4. Jsw Steel companies operating expenses ratio is satisfactory. However, they may give attention to control the selling and administration expenses.
5. The overall return on assets of selected steel company was sound except kalyani steel company.

### **SUGGESTION**

SAIL may give attention in the area of direct expenses as well as indirect expenses to reduction it. Because effective and efficiency performance of company can be measured in terms of working capital and profitability.

TATA steel company may sustain their market share and goodwill due to cutthroat competition and arrivals of new entry in the steel industries and also the reason to increase in input cost. They have better financial performances are compared with sample, so give attention to it.

JSW may give concentration to make optimum utilization of available resources. Because it has passed high level financial assistance but it fails to make more earnings compared with TATA. But the TATA has lowest financial position compared with JSW however it can earn more profit or achieve high profit volume.

KALYANI and LLOYDS has achieved fastest growth rate past FIVE years, while compared with SAIL, TATA and JSW, and they also give importance to enhance the earning power with help of growth rate.

JSW's growth rate of earning profit is low with increase growth rate of expenses so they will give concentration to cut off expenses like direct and indirect expenses.

### **CONCLUSION**

The working capital management has been going on right lines and there has been close co-operation finance, technical and other executive's and there is committed involvement for producing good results to achieve harmony in the working environs of the company. After the analysis of various data, related to selected steel companies in India founded in theoretical statement, it clear that working capital and profitability more or less depends upon the better utilization of resources, cut-off expenses and quality of management function in the products, customer services and to manpower and goodwill and market share. It is worthwhile to increase production capacity and use advance technology to cut down cost of production and wage cost in order to increase profitability, not only against the investment, but also for investor's return point of view. These programs are helpful to increase profitability of selected steel companies in India in future prospects. If the management or government does not look into it seriously, it can result in loss of jobs and the company will become a sick unit.

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