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INVENTORY MANAGEMENT OF TATA STEEL

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Abstract: Inventory management is related to planning, procuring, storing and providing the appropriate material of right quality, right quantity at right place so as to co-ordinate and schedule the production activity in an integrative way for an industrial undertaking. Inventory management simply the process by which an organization is supplied with the goods and services that it need to achieve, objective of buying, storing and movement of material. The main objective of the study is to identifying the factors that affects the inventory management, the facts and opinions of inventory management and control at the age of construction, to create an effective utilization of inventory at industry and to overcome the difficulties by giving the possible recommendations.

INTRODUCTION

Tata steel, Which was founded in 1907 and is India's most integrated private sector in steel firms, has captive iron ore and coal mines as well as one of the world's most modern steelmaking facilities in Jamshedpur, eastern India, which includes a state-of-the-art cold rolling mill complex. Tata steel is one of the world's lowest-cost steel producers.

The project's goal is to learn more about inventory management and how it operates at Tata steel and other steel firms. What are the many methods of inventory management and which one does Tata steel use? TATA ATEEL'S inventory management is critical because it is a manufacturing company, and even a minor delay or other stock-related difficulties can cause major problems and huge losses.

The project's goal are as follows:

- To determine the various inventory ratio and analyze the results.
- To comprehend and examine the discrepancy between the theoretical and practical aspects of an inventory system.
- To have a better understanding of inventory management and how it is managed at Tata steel.

The project's goal is to use the study of various inventory management system to determine the optimum inventory management approach, so that the steel industry may strive to minimize the problem that the plant confront.

COMPANY OVERVIEW

The company was established in Jamshedpur, India, in 1907. In the past few years, Tata steel has invested in Corus (UK, renamed Tata steel Europe), Millennium steel (renamed Tata steel Thailand) and NatSteel Holdings (Singapore). With these, the company has created a manufacturing and marketing network in Europe, South East Asia and the Pacific rim countries, currently ranked 410th on fortune global 500; it is based in Jamshedpur, Jharkhand, India. It is part of Tata Group of companies. Tata steel is also India's second-largest and second-most profitable company in private sector with consolidated revenues of 132,110 crore (US$29.33 billion) and net profit over 12,350 crore (US$2.74 billion) during the year ended March 31, 2008. Tata steel is the 8th most valuable brand according to an annual survey conducted by Brand finance and the economic times in 2010.

Company is listed on Bombay stock exchange and national stock exchange of India, and employs about 81,269 people. It has capacity to produce over 30 million tons of crude steel every year. The company produces crude steel and basic steel products, and make steel for buildings and construction applications through Tata BlueScope steel, its joint venture with Australia's BlueScope steel.

Vision

We aspire to be the global steel industry benchmark for value creation and corporate citizenship.

Mission

Consistent with the vision and values of the founder Jamsetji Tata, Tata steel strives to strengthen India's industrial base through effective utilization of staff and materials. The means envisaged to achieve this are cutting-edge technology and high productivity, consistent with modern management practices.

We make the difference through:

Our **people**, fostering teamwork, nurturing talent, enhancing leadership capability and acting with pace, pride and passion.

Our **offerings**, becoming the supplier of choice, delivering premium products and services, and creating value for our customers.

Our **conduct**, providing a safe workplace, respecting the environment, caring for our communities and demonstrating high ethical standards.

Our **policies**, in adherence to the Tata code of conduct, Tata steel's pertain to active sets of principles in different areas of operation that help brings uniformity in process by clearly defining the company's approach.

Our **innovative approach**, developing leading-edge solution in technology, processes and products.

RESEARCH METHODOLOGY

The study is based on descriptive and applied research. The efficiency of inventory management model at Tata steel requires a thorough knowledge of iron making process and expertise in identifying the materials. Ate accounting is as well as in planning the control of inventory is thoroughly studied by ratio analysis.

Data collection methods

1. Primary source
    - Finance and accounts department
    - Plant visit
    - Purchase department
    - Personal interview
2. Secondary source
    - Website
    - Company report
    - Annual report
    - Concern data internet of company

Presentation of data

- Data is presented in forms of tables, diagrams and trend lines.
- Data analysis and interpretation
- The data analysis has been done using various inventory ratio.

CONCEPT OF INVENTORY

Inventory can be broadly defined as the stock of goods, commodities or other economic resources that that are stored or reserved at any given period for future production or for meeting future demands.

Types of inventory:

- Raw material
- Work-in-process
- Finished goods
- Spares parts

INVENTORY MANAGEMENT AT TATA STEEL

Tata steel manages a variety of inventory types, including raw materials, work-in-process, finished goods, transit inventory, buffer stock and so on. Tata steel uses the FIFO approach for inventory valuation and EOQ method for ordering.

First in first out (FIFO): A method of inventory valuation that allocated costs based on the premise that things are consumed or sold in the order in which they are acquired and placed in stock.

Economic order quantity (EOQ): it is the optimal numbers of item for which, assuming orders are issued, the aggregate order placement and inventory carrying costs will be equal and cost effective. In any case, there will be no loss. The annual requirement in units the cost of placing an order, and the cost of caring one unit in inventory for a year are the determining element for each item of commodities. Any change in one or more of them will affect the item's EOQ.

To find out EOQ; the formula is = 2AO/C

Where; A= annual consumption; O=ordering cost; C= carrying cost

COST SHEET OF TATA STEEL

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
Raw material consumed	2368.3	3121.46	3429.52	5709.91	5494.74
Payment and provision for employee	1351.51	1454.83	1586.77	2305.81	2361.48
Operation and other expenses	4038.71	4647.28	5068.88	6213.58	6813.33
(-)commission	(80.75)	(64.71)	(52.53)	(61.49)	(82.17)
(-)provision for wealth tax	(0.80)	(0.97)	(0.95)	(1.00)	(1.00)
Freight and handling charges	1004.32	1117.45	1098.19	1251.53	1357.27
Excise duty	76.11	93.63	38.5	-32.75	81.13
Deprecation	775.1	819.29	834.61	937.4	1083.18
Prime cost	9532.5	11188.3	12006	16358.7	17107.96
Adjustment of WIP					
(+)opening stock of WIP	32.42	23.93	28.94	16358..7	73.17
(-)closing stock of WIP	(23.93)	(28.94)	(71.48)	71.48	(158.65)
Factory cost	9540.99	11183.3	11963.5	(73.17)	17022.48
Adjustment of finished goods					
(+)opening stock of finished goods	887.22	1000.62	1078.08	1074.27	1361.85
(+)purchase of finished goods	656.08	450.6	446.95	358.87	169.08
(-)closing stock of finished goods	(1000.60)	(1078.08)	(1074.30)	(1361.90)	(1141.40)
Cost of production	10083.7	11556.4	12414.2	16428.3	17412.01
Other income	(254.76)	(433.67)	(335.00)	(308.27)	(853.79)
Provision of debt and advance	6.49	11.99	12.16	8.61	(16.00)
Expenditure (other than interest)	(112.62)	(236.02)	(175.50)	(343.65)	(326.11)
Provision for wealth tax	0.8	0.97	0.95	1	1
Net finance charges	118.44	268.16	671.73	1152.69	1508.4
Commission to selling agents	80.75	64.71	52.53	61.49	82.17
Cost of goods sold	9922.77	11232.5	12641.1	17000.2	17807.68
Profit before tax	529.73	6319.49	7052.2	7315.61	7214.3
Net sales	15215.5	17552.02	19693.3	24315.8	25021.98

FINANCIAL RATIO ANALYSIS OF TATA STEEL

Ratio analysis is the major and efficient tool for management to analyze the data. So here some ratios are given which are related to inventories and with analysis.

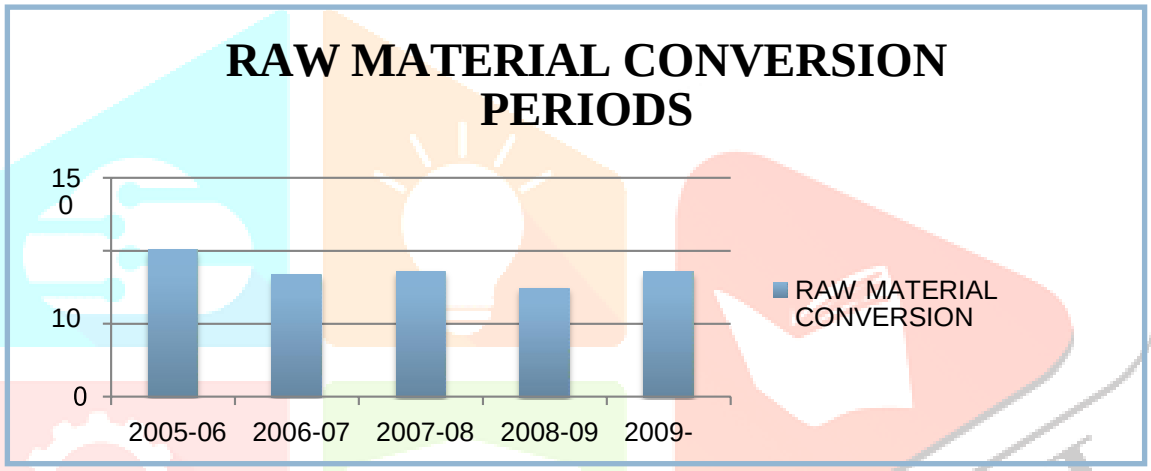
1. **Raw material conversion period**

   This ratio shows in how many day raw materials is used to manufacturing.
   To find this ratio, the formula is;

$$\frac{average\ stock\ of\ raw\ material}{Total\ raw\ material\ consumed} \times 365$$

Where average stock of raw material= (opening stock of raw material + closing stock of raw material)/2

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Opening stock of raw material	901.56	720.54	603.7	603.7	287.02
Closing stock of raw material	1433.26	901.56	707.54	707.54	603.7
Average stock of raw material	1167.41	811.04	714.03	655.62	445.36
Total raw material consumed	5709.91	3429.52	3121.46	2368.3	1715.14



(source: from ineternet)

If we look towards for the year 2004-05, then we can easily observe that, the raw material conversion period is too high than the year 2008-09. This trend is showing that the period of conversion of raw material is decreased year by year. So this chart is showing how efficiently Tata steel is reducing its storing cost and how fast row material is used for production.

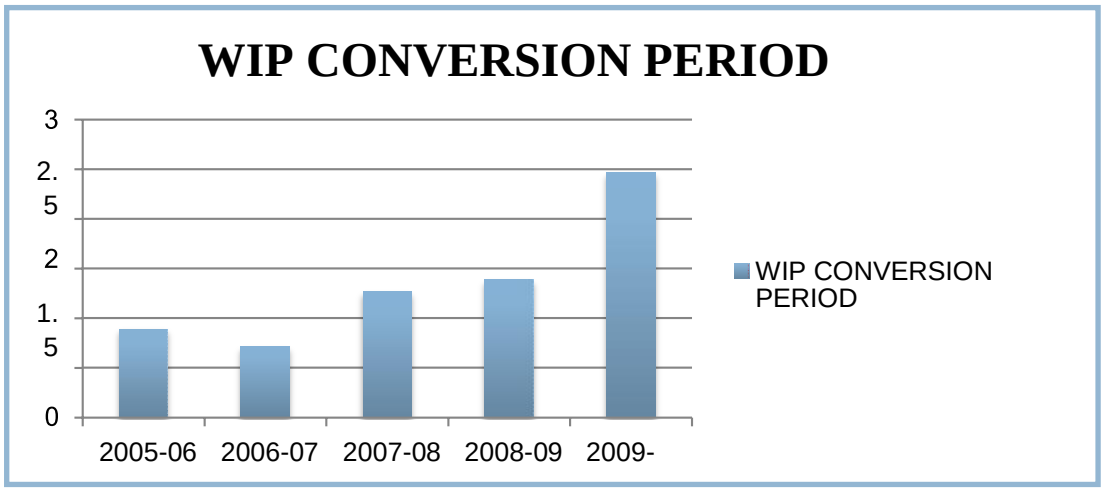
2. **WIP conversion period**

   This ratio shows, in how many days the WIP converted into finished products.
   To find out this ratio, the formula is;

$$\frac{average\ stock\ of\ work-in-process}{cost\ of\ production} \times 365$$

Where average stock of WIP= (opening stock of WIP + closing stock of WIP)/2

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Opening stock of WIP	71.48	28.94	23.93	32.42	13.76
Closing stock of WIP	73.17	71.48	28.94	23.93	32.42
Average stock of WIP	72.325	50.21	26.44	28.18	23.09
Cost of production	1891.71	14423.47	13300.17	11469.71	9516.97



(source: from internet)

As we can see in the chart that WIP converted into finished product within a day in the year 2004-05 to 2006-07. But in recent year it is taking more than one day. If we measure in chart, we can say that the efficiency level of the Tata steel is reducing year by year to convert WIP to finished goods.

3. Finished goods conversion period

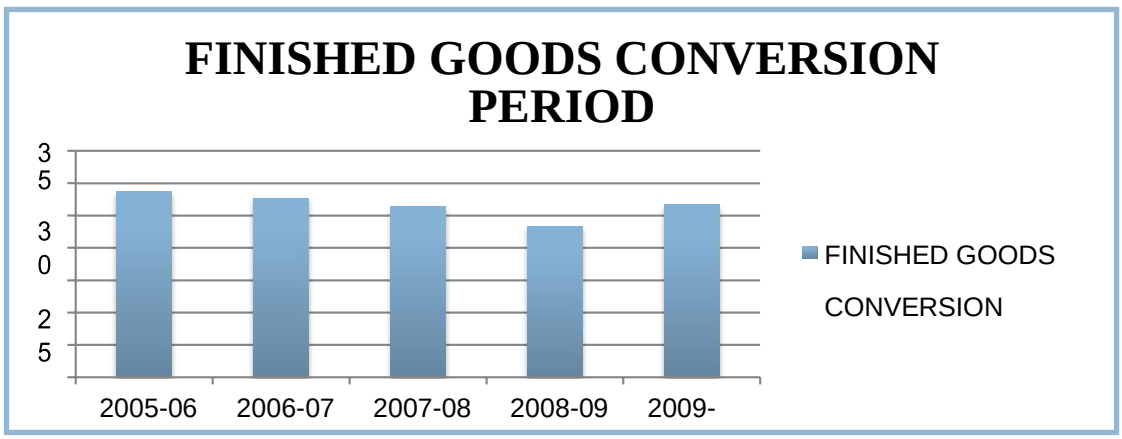
It refers to the time in which the finished goods are converted into sales or in other way we can say that the time period between production and sales when the finished goods kept in the warehouse before the actual size is made.

Formula for SGCP is;

$$\frac{average\ stock\ of\ finished\ goods}{cost\ of\ goods\ sold} \times 365$$

Where average stock of finished goods= (opening stock of finished goods/closing stock of finished goods)/2

particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Opening stock of finished goods	1074.27	1078.08	1000.62	887.82	622.13
Closing stock of finished goods	1361.85	1074.27	1078.08	1000.62	887.82
Average stock of finished goods	1218.6	1076.18	1039.35	944.22	754.975
Cost of goods sold	18989	14874.23	13673.31	12012.39	10555.24



(resource: from internet)

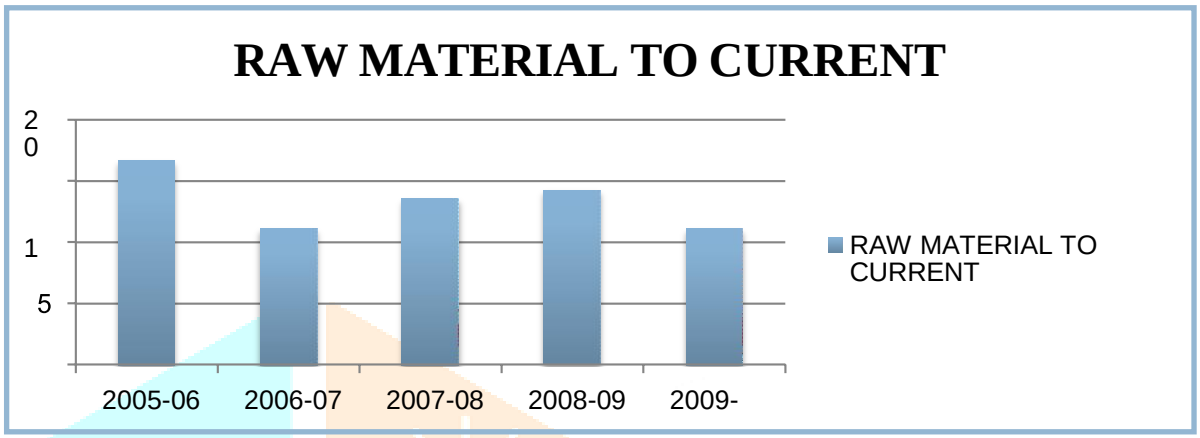
From the table and chart we can easily observed that, though in the year 2005-06 the conversion period increased than the year 2004-05.but fortunately the recession period couldn't hit the sales for the year 2006-07 to 2008-09.it shows the efficiency of not only quality of the steel but also the efficiency of making department of Tata steel.

4. Raw material to current assets

To indicates the percentage of raw materials in the current assets of the company.
To find out this;

$$\frac{Raw\ material(closing)}{current\ assets} \times 100$$

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
Raw material (closing)	707.54	720.52	901.56	1433.26	1153.94
Current assets	4237.6	6475.95	6636.32	10037.48	10375.29
Raw material to current assets	16.69	11.13	13.58	14.27	11.12



(resource: from internet)

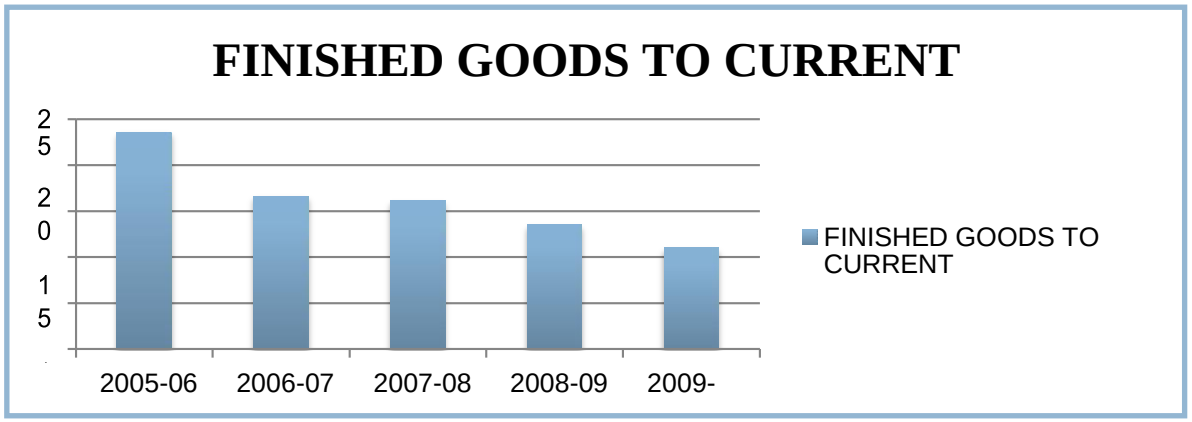
This chart and table can show the one unexpected downfall in the year 2006-07, which is less than 6%. If we observe carefully than we can see that, in the year 2006-07, the raw material trend is nearly same to other years, but due to huge cash in hand increase the current assets.

5. Finished goods to current assets

It indicates the percentage of finished goods in the current assets of the company. Finished goods are such a component of the current assets which can be easily converted into cash.
Formula is;

$$\frac{finished\ goods(closing)}{current\ assests} \times 100$$

Particulates	2008-09	2007-08	2006-07	2005-06	2004-05
Finished goods(closing)	1361.85	1074.27	1078.08	1000.62	887.22
Current assets	10047.48	6636.28	13701.89	4237.6	4083.58



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As we saw in the raw material to current assets, which is same as finished goods to current assets. Due to huge amount of cash held in the year 2006-07, the percentage of finished goods is lesser than the other years. But in the year 2005-06 it is near to 25%. But the percentage is going downwards in the year 2008-09, which is less than 15%.

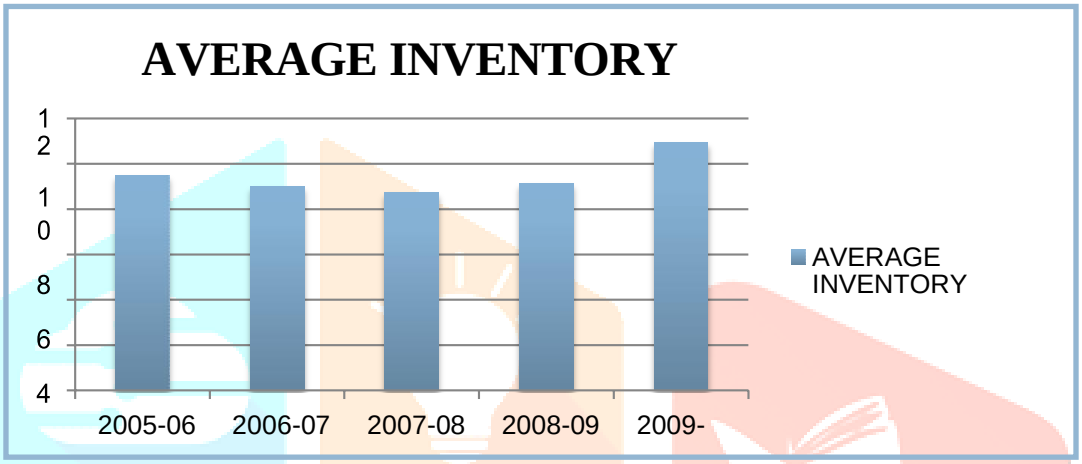
6. Average inventory turnover ratio

It indicates the percentages of inventory with gross sales.
Formula is;

$$\frac{Average\ inventory}{gross\ sales} \times 100$$

Where average inventory = (opening inventory + closing inventory)/2

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Opening inventory	2047.31	1827.54	1732.09	1532.34	922.91
Closing inventory	2868.28	2047.31	1827.54	1732.09	1532.34
Average inventory	2457.80	1937.43	1779.82	1632.22	1227.63
Gross sales	26843	22191.8	19762.57	17144.22	15876.87



(resource: from internet)

As we can observed that, the trend is showing nearly constant, expect the year 2004-05. The inventory level is increasing as well as the gross sales. It shows the constant growth of sales and inventory.

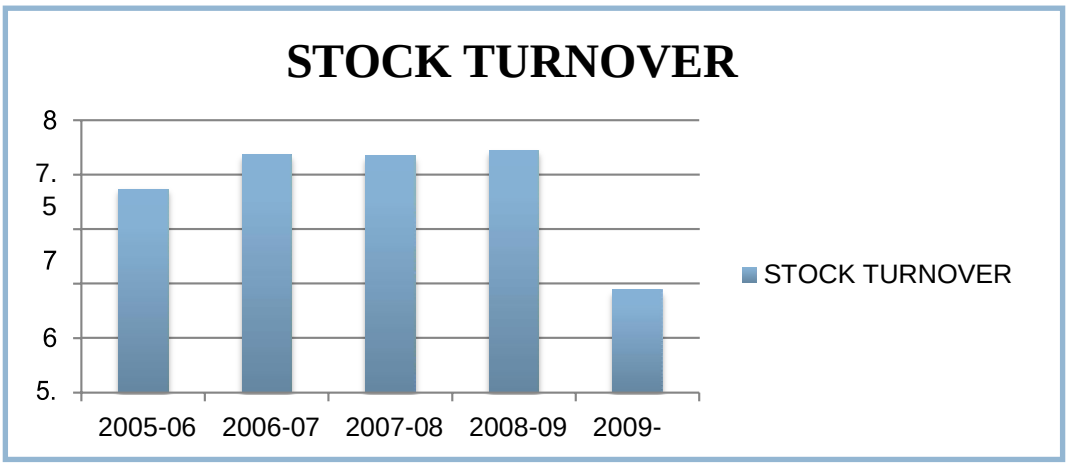
7. Stock turnover ratio

The stock turnover ratio measures the numbers of times a company sells its inventory during the year.
Formula is;

$$\frac{cost\ of\ good\ ssold}{average\ stock}$$

Where average stock = (opening inventory + closing inventory)/2

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Cost of goods sold	18989	14874.23	13673.31	12012.39	10555.24
Average stock	2457.8	1937.43	1779.32	1632.22	1227.63



(resource: from internet)

As we can find out that in the year 2004-05 the ratio was very high as compare to other years. In the year 2005-06 it is even less than 7.5, but after that Tata steel maintained the consistency on its growth.

8. Average age of stock

The ratio shows how many days' stocks are kept as inventory in the company before sales.
Formula is;

$$\frac{365}{stock\ turnover\ ratio}$$

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Stock turnover ratio	7.72	7.67	7.68	7.37	8.63

We can see that average age of stock is not more than 50 day in any of the year. But in year 2004-05 it is near to 40 days where, in the year 2005-06 it is near to 50 days. Tata steel needs to reduce the day, through its sales with the help of marketing department.

9. Spare parts index

It shows the index of spare parts, which are used to fixed assets.
Formula is;

$$\frac{stores\ and\ spares\ part(closing)}{net\ block\ of\ fixed\ assets} \times 100$$

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Stores and spares parts(closing)	505.44	442.66	505.44	442.66	349.06
Net block of fixed assets	11040.56	9865.05	11010.56	9865.05	9112.24

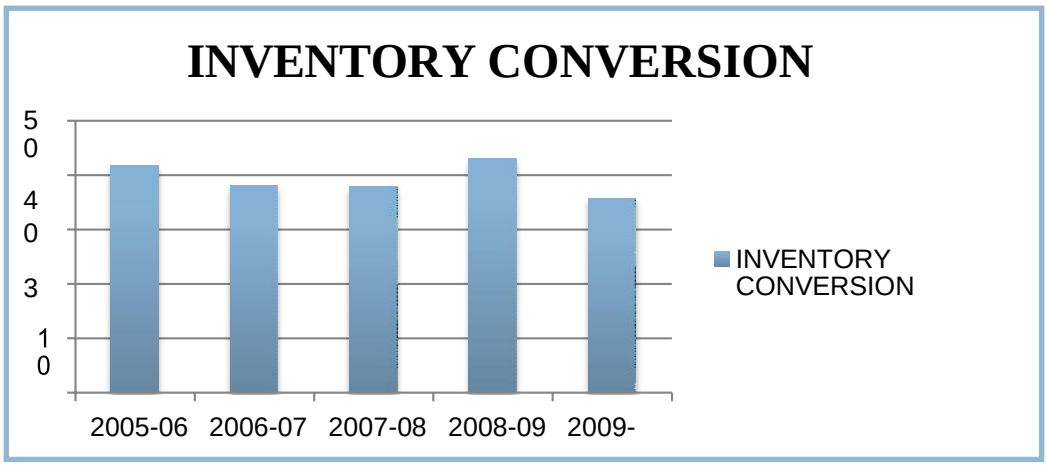
This index is showing downwards in recent years. But in the year 2004-05 it is less than 4. And in the year 2006-07 it is more than 4.5. So Tata steel should try to reduce this index

10. Inventory conversion period

This ratio shows in how many days inventories are converted into sales. It is major ratio analysis for cash conversion period. Because it is the first component of the cash conversion period.
Formula is;

$$\frac{inventories(closing)}{sales/365}$$

Particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Inventories(closing)	2868.28	2047.31	1827.54	1732.09	1523.34
Sales	24315.77	19693.28	17551.09	15139.39	14498.95



(resource: from internet)

From this chart we can observe that in the year 2007-08 and 2006-07, the inventory was most efficiently converted into sales. But unfortunately it is very high in the year 2008-09. So it shows the efficiency for the company.

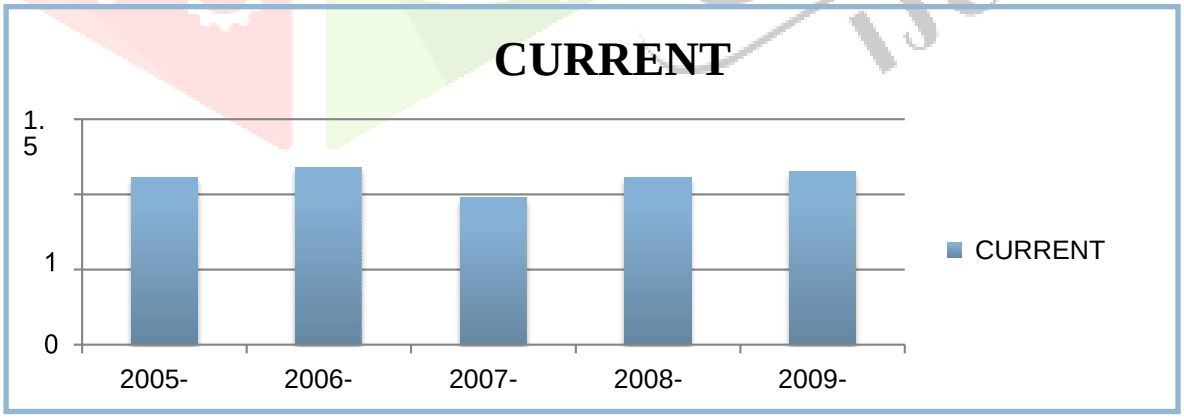
11. Current ratio

This ratio is used to judge the short term solvency of a company and is worked out by dividing the aggregate current assets by its aggregate current liabilities.

Formula is;

$$\frac{current\ assets}{current\ laibilities}$$

particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Current assets	10047.48	6636.28	13701.89	4237.72	4083.58
Current liabilities	8974.05	6768.78	5453.66	3808.72	3699.99



(resource: from internet)

In the year 2006-07, this ratio is too high due to Hugh amount cash held in the company. From here we can say that company has Hugh liquidity but in other sense we can say that company blocked this Hugh amount of cash without investing. Again it is very good sign for the company, because the reason hit the world in the year 2007-08 and the company has Hugh amount of liquidity to face the crisis moment.

12. Acid test ratio

It measures the company's most liquidity against the current liability. Here we exclude the inventory from the current assets. Because inventory is less liquidity than other current assets. So it indicates the coverage of current liabilities with quick realizable assets.

Formula is;

$$\frac{current\ assets - inventories}{current\ liabilities}$$

particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Current assets	10047.48	6636.28	13701.89	4237.6	4083.58
Inventories	2868.28	2047.31	1827.54	1732.09	1523.34
Current liabilities	8974.05	6768.78	5453.66	3808.72	3699.99

As we have seen in the current ratio, in the year 2006-07 is the highest than other. Here also this ratio is highest than others due to heavy amount of cash, which shows the most liquidity. Here we can see that the current ratio of the year 2005-06 and2008-09 was same. But due to less inventory percentage in current assets the acid test ratio is higher than the year 2005-06.

13. Total inventories to total assets

This ratio shows the percentage level of inventories in compare to total assets.
Formula is;

$$\frac{total\ inventories(closing)}{total\ assets} \times 100$$

particulars	2008-09	2007-08	2006-07	2005-06	2004-05
Total inventories	2868.28	2047.31	1827.54	1732.09	1523.34
Total assets	58741.77	47075.52	25597.5	14617.16	12143.3

The percentage level is decreasing year by year to increase the liquidity level. But in the year 2007-08, it is very low because of recession period to increase the liquidity percentage.

COMPARISION WITH OTHER COMPANIES

Jindal steel and works (JSW)

In the world of business, the Jindal organization is the celebrity. Ranked sixth amongst the top Indian business houses in terms of the assts. The group today is a US $10 billion conglomerate. The JSW group is known across the country as the “strategic first movers”. The company occupies a pivotal part of the O. P. Jindal group that has emerged as an *u*ndistruptable world leader in a short span of three decades.

Some of the key element that define the JSW group are:

- It has a strong foothold across India, south America, south Africa & Europe
- JSW group is spearheading initiatives in core sectors like steel, energy, cement, infrastructure, ventures & sports.
- It has a diverse workforce over 40,000 individuals.
- The group has proven to play a significant role in the growth of the country.

Balance sheet of JSW:

Particulars	31/03/05	31/03/06	31/03/07	31/03/08	31/03/09
Equity share capital	15.4	15.4	15.4	15.4	15.47
Preference share capital	1	-	-	-	-
Reserves & surplus	1302.98	1829.31	2481.33	3740.98	5399.85
Loan funds:					
Secured loans	1159.51	1780.77	2115.61	1783.39	2105.49
Unsecured loans	336.35	964.6	1392.11	2079.96	28577.16
Total	2815.24	4590.08	6004.45	7619.73	10377.97
Gross block	2531.28	3243.05	4929.03	5918.94	7362.90
Less: accumulated depreciation	361076	542.33	781.75	1183.11	1617.00
Net block	2168.53	2700.72	4147.28	4735.83	5745.90
Capital WIP	345.7	1146.27	937.84	660.48	2318.01
Investments	33.38	430.3	709.82	1036.19	1233.40
Total	4716.13	6978.01	9942.22	11168.33	15043.21
Net current assets:					
Current assets, loans & advances	1036.30	1490.50	1801.66	3299.57	5189.28
Less: current liabilities & provisions	769.67	1178.45	1595.39	2115.48	4111.64
Total net current assets	266.62	312.05	206.27	1184.09	1077.64
Miscellaneous expenses not written	1.01	0.74	3.24	3.14	3.02
Total	2815.24	4590.08	6004.45	7619.73	10377.97

(Rs in crore)

P&L Account

particulars	2005-06	2006-07	2007-08	2008-09
Income:				
Operating income	2565.04	3523.08	5368.14	7677.83
Expenses:				
Material consumed	536.71	1068.50	1727.40	3419.42
Manufacturing expenses	545.44	510.96	670.87	773.84
Personnel expenses	79.74	90.14	132.2	181.46
Selling expenses	222.18	276.47	264.73	327.76
Administrative expenses	148.16	167.2	277.03	337.49
Cost of sales	1532.23	2113.27	3072.23	5039.97
Operating profit	1031.81	1409.81	2295.91	2637.32
Other recurring income	26.02	36.08	57.31	199.46
Adjusted PBDIT	1058.83	1445.89	2353.22	2837.32
Financial expenses	108.02	173.19	243.02	267.89
Depreciation	219.17	336.47	451.51	433.03
Other write offs	0.27	0.27	0.27	0.2
Adjusted PBT	731.37	935.96	1658.42	2136.20

Tax charges	154.91	214.85	265.55	465.4
Adjusted PAT	576.46	694.11	1392.87	1670.80
Nonrecurring items	(12.00)	7.78	(144.57)	(144.78)
Other non-cash adjustments	8.48	1.1	(11.34)	10.46
Reported not profit	572.94	702.99	1236.96	1536.48
Earnings before appropriation	1528.77	2136.05	3239.54	4584.28
Equity dividend	46.19	55.43	62.02	85.33
Dividend tax	6.48	8.87	10.55	-
Profited carried to balance sheet	1476.10	2071.75	3166.97	4498.95

(Rs in crore)

Steel authiriy of india

steel aothority of india limited(SAIL) is the leading steel-making company in india. it is a fully integrated iron and steel maker, prividing both basic and special steel for domestic construction, engineering, power, rail-way automotive and defence industries for sale in export markets.

ranked amongst the top ten public sector companies in india in term of turnover, SAIL manufacature and sell a broad renge of steel products, including hot and cold rolled sheet coils, galvanished sheet, electric sheets, structural, rail-way products, plates, bars and rods, stainless steel and other alloy steel. SAIL produce iron and steel at five integrated plants and three special steel plants, located principally in the eastern and central region in india amd siuated close to domestic sources of raw materials, including the companies iron ore, limestone and dolomite mines. the company has distriction of being india's second largest mines network. this gives SAIL a compititive edge in terms of captive avaibility of iron oer, limestone, and dolomite which are the input for steel making.

Balance sheet of SAIL

particulars	31/03/05	31/03/36	31/03/07	31/03/08	31/03/09
sources of funds					
owner's fund					
equity share capital	4130.40	4130.40	4130.40	4130.40	4130.40
reserves & surplus	6176.25	8471.01	13182.75	18933.17	23853.70
loan funds					
secured loans	1603.98	1122.16	1556.39	925.31	1473.60
unsecured loans	4165.81	3175.46	2624.13	2119.92	6065.19
total	16076.44	16899.03	21493.67	26108.81	35522.89
uses of funds					
fixed assets					
gross block	28043.48	29360.46	29912.71	30922.73	32728.69
less: accumulation depretiation	15558.41	17198.32	18315.00	19351.42	20459.89
net block	12485.07	12162.14	11597.71	11571.31	12269.83
capital WIP	366.48	757.94	1236.04	2389.55	6544.24
investment	606.71	292	513.79	538.2	652.7
net current assets					
current assets, loans & advances	15521.37	18788.80	21673.75	27309.01	35666.84
less: current liabilities & provisions	13198.12	15317.67	13656.77	15758.74	19609.72
total net current assets	2323.25	3471.13	8016.98	11550.27	16057.12
miscellaneous expenses not written	294.93	215.82	129.15	59.48	-
total	16076.44	16899.03	21493.67	26108.81	35522.89

(Rs in crore)

P&L Account

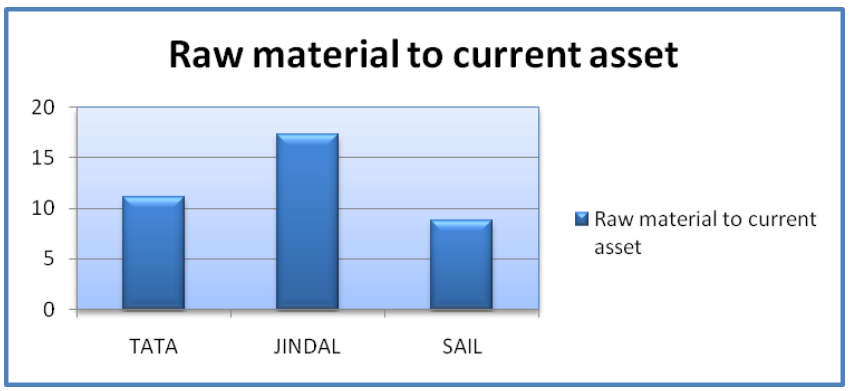
particulars	2005-06	2006-07	2007-08	2008-09
income				
operating income	28200.48	34328.77	39958.67	43798.58
expenses				
material consumed	13903.23	15963.13	16821.39	22.42.58
manufacturinf expanses	2793.45	2925.43	3317.74	3762.77
personnal expanses	4156.32	5087.76	7919.28	8401.73
selling expenses	1108.12	1066.73	1143.90	935.68
administrative expenses	1035.99	1064.29	1321.44	1644.78
expenses capitaliezed	-1352.05	-1423.08	1832.22	-1930.40
cost of sales	21645.71	24684.26	28691.53	34857.14
operating profit	6554.77	9644.51	11267.14	8941.44
other recurring income	892.3	1354.96	1539.69	2279.89
adjusted PBDIT	7447.07	10999.47	12806.83	11221.33
financial expenses	467.76	332.13	250.94	253.24
depreciation	1207.30	1211.48	1235.48	1285.12
other write offs	181.44	128.59	75.49	128.02
adjusted PBT	5590.57	9327.27	11244.92	9554.95
tax charges	1694.36	3253.80	3934.56	3284.28
adjusted PAT	3896.91	6073.47	7310.27	6270.67
nonrecurring iteams	45.64	53.75	161.9	-277.12
other non cash adjustments	71.12	60.57	64.91	181.26
reported net profite	4012.97	6187.79	7536.78	6174.81
earnings before appropriation	7861.47	12886.63	18348.34	22052.47
equity dividend	826.08	1280.42	1528.25	1073.90
dividend tax	115.86	197.98	258.91	181.26
profit carried to balance sheet	6919.50	11408.20	16561.30	20797.30

(Rs in crore)

RATIO COOMPARISION BETWEEN COMPANIES

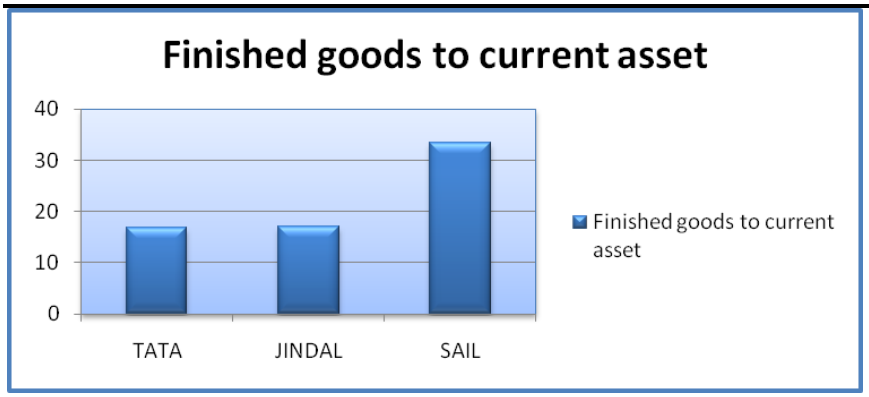
ratio analysis	**TATA**	**JINDAL**	**SAIL**
raw material to current assets	11.12	17.3	8.83
finished goods to current assets	16.91	17.02	33.45
stock turnover ratio	6.44	7.77	5.08
inventory conversion period	35.79	53.49	85.61
current ratio	1.15	0.61	2.01

it will easy to understand when it will put into chart. so, all the nececcary charts are given below.



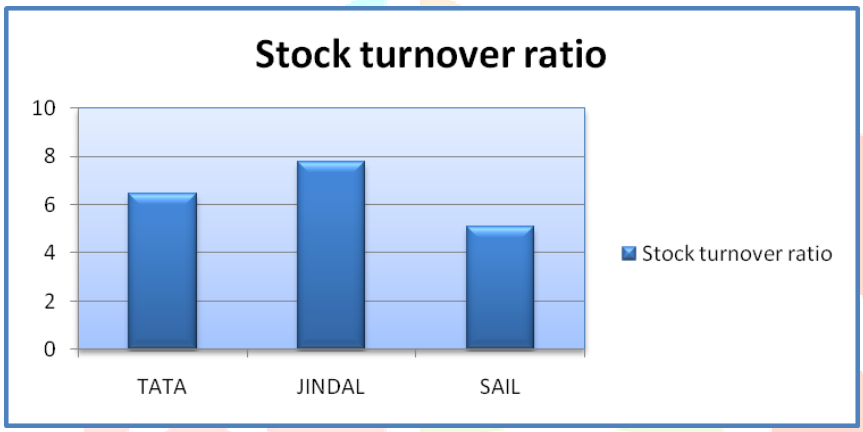
ANALYSIS

if we compare of TATA steel with other companies, than we can see that TATA Steel's raw material to current assets is neither too high or too low. it is maintaning a required amount of raw material in hand.



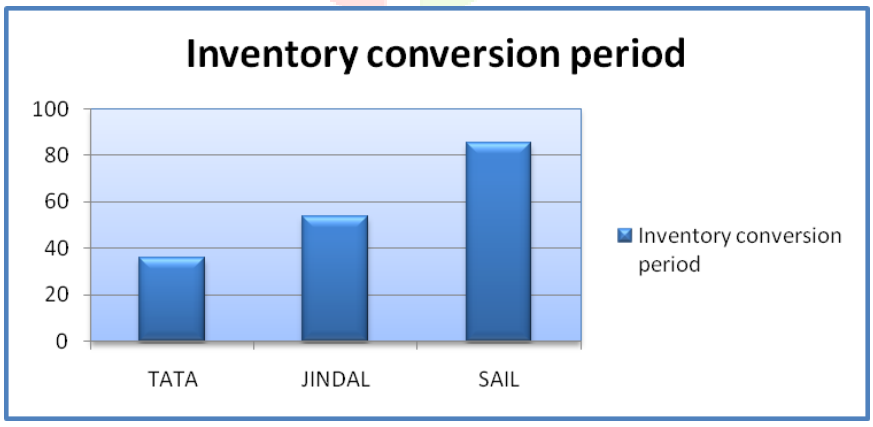
ANALYSIS

here we can see that SAIL is playing a defensive role in case of finishing goods. but still tata steel has limited finished goods to sell. tata steel never try to block its capital.



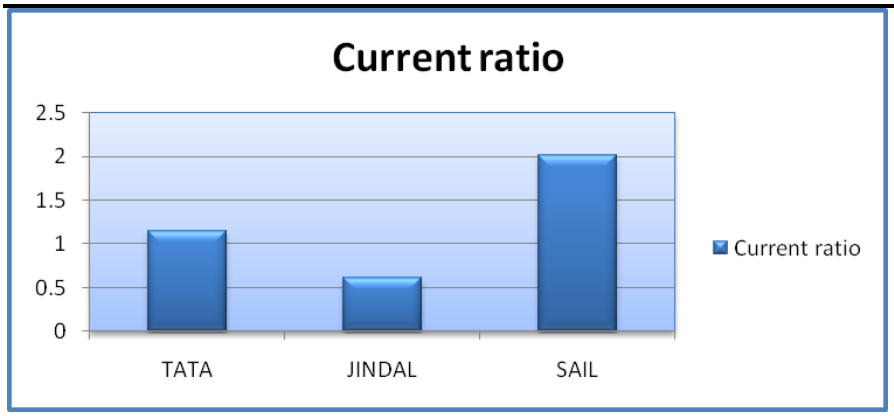
ANALYSIS

both Tata steel and Jindal steel have the good turnover ratio. in this case Tata steel is far ahead than SAIL.



ANALYSIS

inventory conversion period is lowest than other companies for Tata steel. so from here we can conclude Tata steel is the fastest converter company for inventory.



ANALYSIS

current ratio of Tata steel is in standard position. where Jindal steel's current ratio is less than 1 and SAIL's current ratio is more than 2. where SAIL is blocking its working capital there Tata steel is keeping appropriate coverage for current liabilities.

CONCLUSION

during the period of study i found some good points and some which i think will help in improving the perfomance of the company. these are as follows:

My observation:

- tata steel is maintainig three majortypes of inventories i.e. raw material, work-in-process and finished goods.
- cost of inventories is valued under 'weighted average method'.
- Tata steel has prepared high quality inventory storing house to minimize the cost relating to it.
- Tata steel's inventory conversation period is too efficiient than its compititor. it is very less than others.
- Tata steel keeping only 5% of its total assets, which is leser than the other compititors. it shows efficiency leval of tata steel. import of raw material is the mazimun in the year 2008-09. where in rest of the year Tata steel is using own mines for raw materials.
- the compounded annual growth per annum for the value of raw material consumed is more than 35% but sales value is not increasing that much. but it is far efficient than the others.
- where finished goods conversion period and raw material conversion period is decreasing, the work in process conversion period is increasing.

My suggestion:

- for better inventory control tata steel must apply VED analysis and ABC analysis.
- tata steel must keep eye on its WIP conversion period.
- tata steel should try to minimze its inventory conversion period and also try to minimize the average age of stock to reduce the cost of inventory.
- as sale price per unit is lesser than the compititors it must keep trend incresing mode of sales to reduce the blockegde of its price in its inventory.
- try to generate more revenue from another contry.
- tata steel should try to accomplished of more mines in india to reduce a raw material outsourcing or impact cost.

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