Impact of working capital management on profitability in JSW steel limited

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Abstract:

Working capital management is the key area of financial management and plays an important role in any industry. This paper concentrates on Impact of working capital on profitability in JSW Steel Limited. Through this research work, an attempt is made to analysis the efficiency of working capital management and to know the liquidity position of JSW Steel Limited.

The exploratory research design is adopted for the study with which is secondary data The financial statements and annual reports of JSW Steel Limited have been collected over a period of 10 years (FY2009-10 to FY2018-19). The data collected is analyzed by the percentages, averages & ratios, which reveal that research evidence of the study indicating the current ratio was not in good position, the average payment of working capital has improved & Debt have been increasing and decreasing constantly hence the debt ratio of the firm shows improved in the firm.

It is suggested to JSW to liquidity position is weak, so it should increase investment in current assets. Net profit ratio slowly increased because company made more investment in the purchase of raw materials and has other expenses. So the company made plan for decrease investing in these things it helps to increase the profit of the business and also there must be a proper management of inventory & inventory conversion period must be reduced.

To conclude, Company has insufficient current assets and less working capital, so it is not able to maintain the adequate profit. Expenses are increasing thereby indicating the necessity of corrective measures to face inflation and it is borrowing money which has decreased profit and working capital. & the main reason for that is it had incurred a loss in last year and it could maintain the adequate cash and bank balance.

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***Keywords**: working capital, working capital management, profitability, liquidity, average payment*

Industry profile

The global steel industry

The Global Steel Industry has been going through major changes since 1970. China has emerged as a major producer and consumer, as has INDIA to a lesser extent. Consolidation has been rapid in Europe.

GROWTH OF INDUSTRY

Global steel production grew enormously in the 20th century from a mere 28 million tons at the beginning of the century to 781 million tons at the end.

WORLD STEEL PRODUCTION IN THE 20th CENTURY

Over the course of the 20th century, production of crude steel has risen at an astounding rate, now fast approaching a production level of 800 million tons per year. Today, it is difficult to imagine a world without steel. During the 20th century, the consumption of steel increased at an annual rate of 3.3%.In 1900, the USA was producing level of 800 million tons per years. Today, it is difficult to imagine a world without steel.

COMPANY PROFILE

In the 15th century, Krishnadevaraya (1509-29) ruled the royal vijaynagar dynasty located in southern India, famous for its peace and prosperity, Reminiscing the past glory and grandeur of vijayanagar, JSW (JINDAL SOUTH WEST) the mega steel plant has come up at Toranagallu, 29kms from Bellary. The Principal Promoter of JSW is JISCO, both belong to Om Prakash Jindal group with 50 year of experience in steel industry.

JVSL has an interesting history; Mrs. INDIRA GANDHI inaugurated this site in 1971, for an integrated steel plant which was to be named Vijayanagar steel plant. In 1994, GOVT of Karnataka approved Jindal who succeeded in setting up of JSW, largely because they dared to choose not socommercial but most environment friendly for iron making, COREX as agent conventional process of Blast furnace. The company was promoted by Jindal group with participation from Karnataka steel investment and development corporation Ltd.

RESEARCH METHODOLODY

ISBN: 978-93-83302-47-5

TITLE:

" IMPACT OF WOKING CAPITAL MANAGEMENT ON PROFITABILITY IN JSW STEEL LIMITED"

OBJECTIVES:

1. To understand the efficiency of working capital management in Jindal steel works for period of prevailing 10 years
2. To know the liquidity position of the Jindal steel work for a period of prevailing 10 years

NEED FOR THE STUDY

It is said, "Finance forms the life-blood of any business organization, be it trading, manufacturing or service enterprise". Working capital constitutes an ingredient part which is necessary for day-to-day running of the organization. Any problem faced by an organization in working capital management will directly affect core activity of the business namely manufacturing and selling. The company must have sufficient working capital for day-to-day running of the business. At the same time, it must be ensured that huge amount of funds are not blocked in working capital as it affects returns of the company. Therefore, it becomes essential for any finance manager to strike a proper balance between these two extremes – namely, risk and return ("Risk-Return Trade off"). The study of working capital management of a company gives an insight as to how a company manages its working capital and what are the problems faced by it internally and from external environment.

SCOPE OF THE STUDY:

Decision regarding working capital management is operating in nature and is not our time decision, so the scope of the study is to identify the areas of the control to have better over various components of working capital. An attempt is made to identify the optimum working capital requirements for Jindal steel works and how can they utilize the inventories, cash and receivables in better way.

The study is exclusively conducted for JSW the study is conducted based on records of last 4 years i.e 2008-09 to 2018-19The study focuses on the measurement of liquidity of working capital.

RESEARCH METHODOLOGY:

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The study is purely descriptive in nature which required both Primary and Secondary data.

Secondary data:

The data relating to working capital management of JSW has been collected through secondary data viz, published annual reports of the company during the years 2008-09 to 2018-19

LITERATURE REVIEWS

Working capital management is the key area of financial management and plays an important role in any industry. A number of researchers have conducted research on the subject and its various components. This Chapter is an overview of the research that has been carried out on the subject. Some of the most relevant articles have been reviewed here as a part of my research work.

1. **Deloof Marc (2003)** at Belgium firms. To analyze how working capital management affects the profitability of Belgium firm by taking a sample firms. And has found that most of the firms have a large amount of cash invested in working capital. It can, therefore, be deduced that the way in which working capital is managed will have a significant impact on the profitability of the firms.
2. **ThappaSankar (2007)** at Sun Pharma industries Ltd. To analyze the importance of proper working capital management of Sun Pharmaceutical Company. The article shows working capital, working capital policy, components of working capital and factors affecting working capital in the Sun Pharma Industries Ltd during the last five years, and identifies certain factors which are responsible for the improvement of working capital of the company. And has concluded that if satisfactory level of working capital is not maintained, the company would become bankrupt.
3. **NarenderVunyale, Menonshrijit and Shwetha V, (2008)** at cement industry in India. To analyze the investing of working capital management of the industry. And has found that only size of the firm affects both net liquid balance and working capital ratio in a company's working capital management.
4. **Samiloglu F. and Demirgunes K. (2008).** To analyze the effect of working capital management on firm's profitability. To consider statistically significant relationship between the firm's profitability and the components of cash conversion cycle at length, a sample consisting of Istanbul Stock Exchange (ISE) listed manufacturing firms for the period from 1989 to 2007 has been analyzed under a multiple regression model. And was found that accounts receivable period, inventory period and leverage affect firm's profitability negatively, while growth (in sales) affects firm's profitability positively. \
5. **BaigViqar Ali (2009)** at diary firms. To analyze the comparative findings of a survey of working capital management practices of selected agribusiness firms from diary co-

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operatives, private and MNC diary firms as a part of the research this is completed in July 2008. And has found that the effect of the ownership, government regulations, managerial empowerment and cultural factor on the working capital decision making.

6. **Rahman Mohammad M. (2011)** at textile industry. To study co-relation between working capital and profitability of the firm. And has found that in the textile industry profitability and working capital management position are found to be up to the mark.
7. **Joshi Lalitkumar and GhoshSudipta (2012)** at Cipla Ltd. To analyze the working capital performance by using financial ratios analysis. And has found that the selected ratios show satisfactory performance and significant negative relationship between liquidity and profitability of the company.
8. **Dr.Panigrahi Ashok Kumar (2012)** at ACC Cement Company. To analyze the impact of working capital management on profitability during the period 1999-2000 to 2009-2010. And has found that the working capital management affects the performance of the firm. It can be deduced that there is a moderate relationship between working capital management and the firm's profitability.
9. **Chandra H. and Selvaraj A. (2012)** at steel company. To analyze the working capital management of selected steel companies in India for the period from 2000-01 to 2009-10. And has found that the size of a company plays a vital role in determining the efficiency of its working capital management. The working capital ratios across the small, medium and large sized steel companies have played a vital role in determining the working capital management of the selected Indian steel companies.
10. **Ray Sarbapriya (2012).** To analyze the relationship between liquidity and profitability in the manufacturing industry. The writer has taken as a sample 311 manufacturing firms for a period of 14 years, and studied the effect of different variables of working capital management. In this study strong adverse relationship between measures of working capital management and corporate profitability have been observed. In the end insignificant negative relationship between firm size and its net operating profit ratio was detected.

INTRODUCTION OF WORKINGCAPITAL:

Every business requires two main categories of capital

1. Fixed capital
2. Working capital

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The capital is required for day to day purposes and also for establishment. Capital required for creating production facilities through purchase of fixed assets are called long term funds and are fixed capital.

The funds needed for short term obligations such as the purchase of raw materials and payment of wages etc. day to day expenses these funds are called working capital.

The Working Capital Management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them.

Meaning of Working Capital:

One o the most important areas in the day to day management of the affairs of a firm is the management of working capital.

All current assets used in daily operations represent working capital that is investment in current asset like inventories, receivables, debtors, marketable securities etc.

Therefore current asset refers to those assets which can be converted into cash within one year without any loss in values and without disrupting the operations of the firm and on at the current liabilities. Current assets like cash, bank balance, raw materials, finished goods, sundry debtors, bills receivables, short term advance, prepaid expenses, temporary investments etc.

So current liabilities refers to those liabilities which are required to be paid within one year, out of current assets or earnings of the concern and current liabilities like, short term borrowings creditors, outstanding expenses, bills payable, bank overdraft etc.

Working capital is called circulating capital which can be depicted through this diagram.

Diagram of Working Capital Cycle:-

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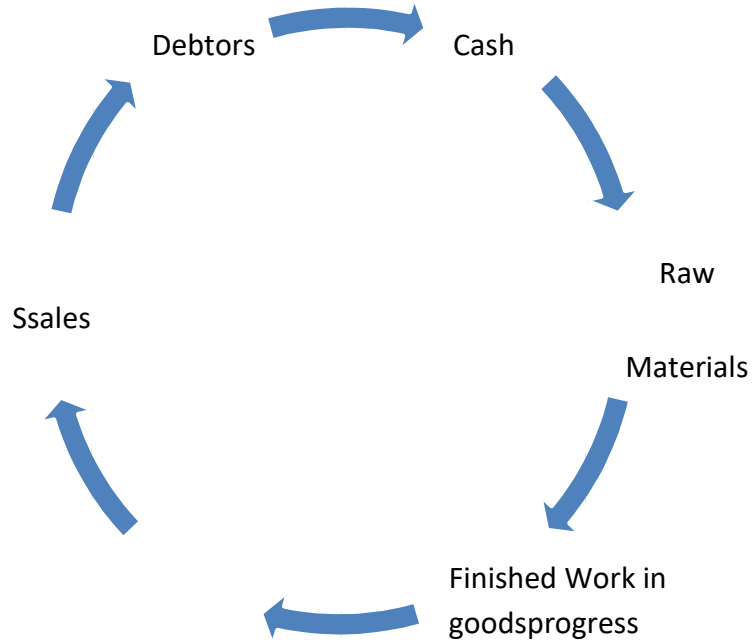

DATA ANALYSIS AND INTERPRETAION

RATIO ANALYSIS:

CURRENT RATIO

This is most widely used ratio to know the working capital position. This ratio expresses the relationship between current assets & current liabilities. This ratio gives the information about firm ability to meet short term and long term working capital.

Formula**: - Current ratio = Current assets / Current liabilities**

YEAR	CURRENT ASSETS	CURRENT LIAIBILTIES	CURRENT RATIO
2010	5,469.96	10,255.16	**0.53**
2011	10,047.51	13,091.17	**0.77**
2012	15,188.84	17,542.56	**0.87**
2013	15,148.16	19,102.10	**0.79**
2014	20,531.46	21,703.89	**0.95**
2015	24,613.08	25,374.42	**0.97**
2016	17,301.92	20,737.42	**0.83**
2017	23,546.00	22,024.00	**1.07**
2018	26,703.00	24,787.00	**1.08**
2019	38,370.00	32,625.00	**1.18**

Table -1 current Ratio

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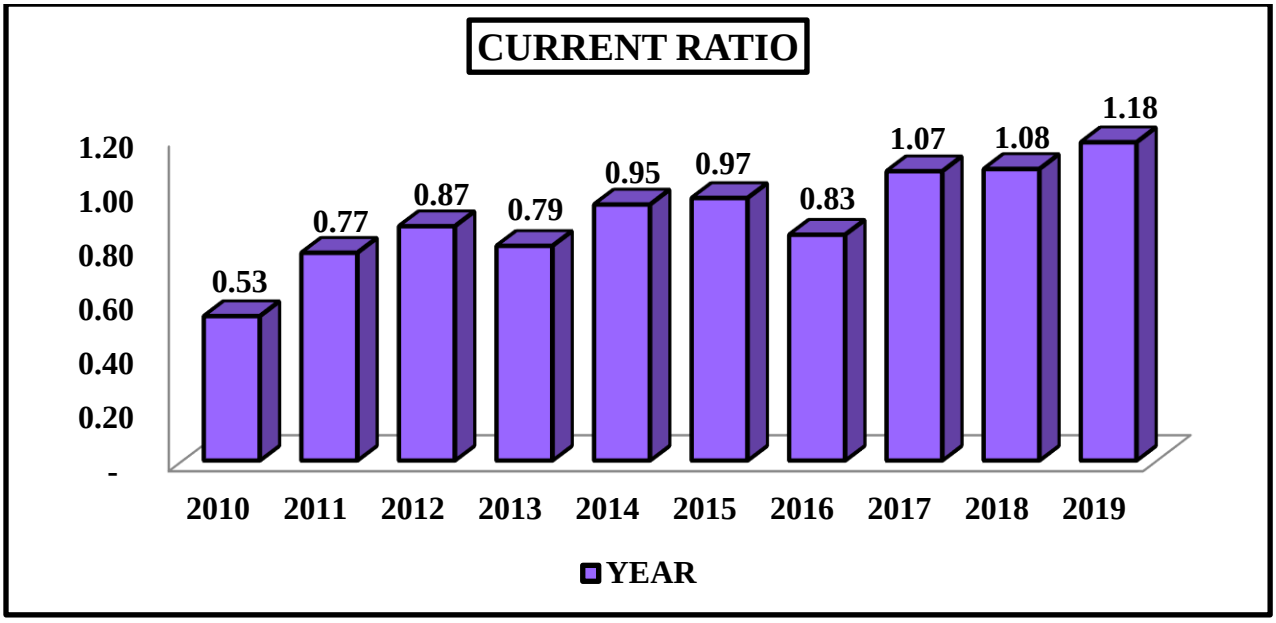
Source- JSW Annual reports



INTERPRETATIONS:

The current ratio in 2010 was not good in position it shows below the standard ratio (i.e. 0.50 times) but at present after 9 year in 2019 it is above the standard ratio i.e. 1.18 times. At present company is in good position it can manage all liabilities.

1. QUICK RATIO

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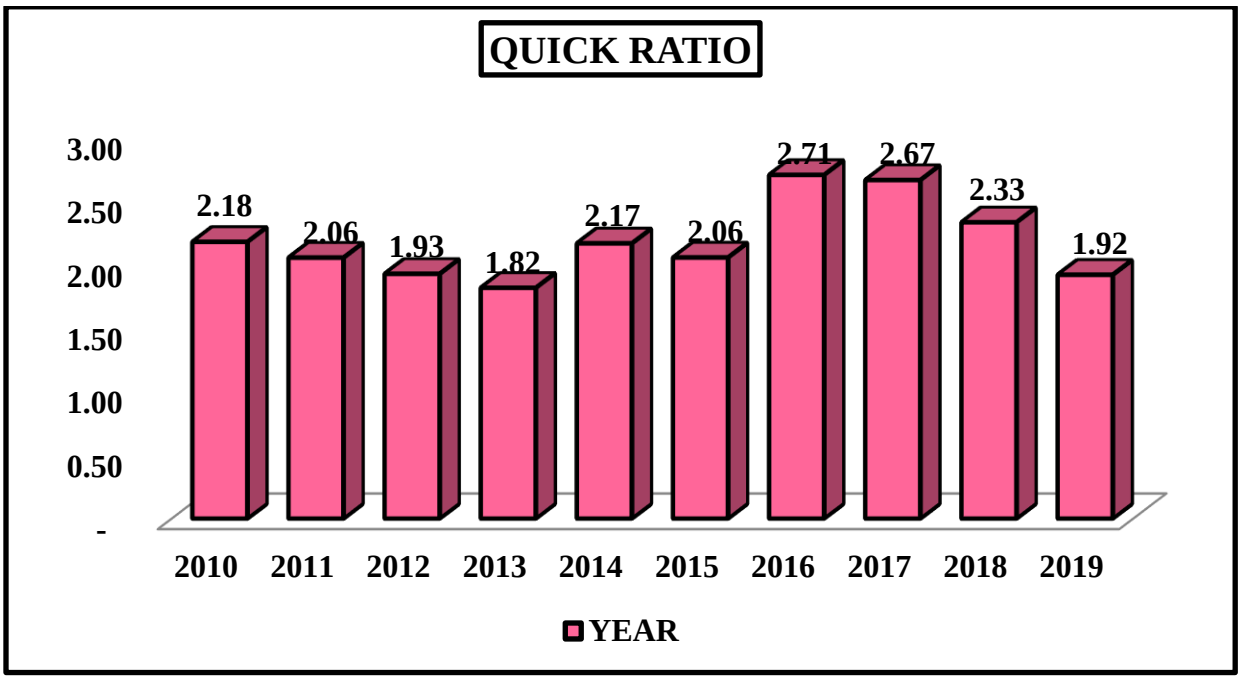
Formula: - Quick Ratio = Quick Assets / Current Liabilities

YEAR	QUICK ASSETS	CURRENT LIABILITIES	QUICK RATIO
2010	22,351.95	10,255.16	**2.18**
2011	26,903.86	13,091.17	**2.06**
2012	33,812.06	17,542.56	**1.93**
2013	34,716.80	19,102.10	**1.82**
2014	47,045.94	21,703.89	**2.17**
2015	52,176.28	25,374.42	**2.06**
2016	56,139.52	20,737.42	**2.71**
2017	58,730.00	22,024.00	**2.67**
2018	57,848.00	24,787.00	**2.33**
2019	62,644.00	32,625.00	**1.92**

Table -2 Quick Ratio

Source- JSW Annual reports



INTERPRETATIONS:

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The above graph shows the company's Quick or Liquid Ratio. According to the above data company is not capable to pay its debts through liquid assets. Quick ratios of all the years (2010 to 2019) show below the standard ratio (i.e. 1.50). From 2013-2014 company's Quick Ratio was in below the standard ratio and it was constant. But in 2015 and 2016 Quick Ratio got some improvement

RETURN ON ASSETS

Return on asset = Net income / Total asset

YEAR	NET INCOME	TOTAL ASSETS	RETURN ON ASSETS
2010	1,597.55	35,406.32	**0.05**
2011	1,756.00	45,888.16	**0.04**
2012	537.68	53,922.12	**0.01**
2013	963.11	57,512.92	**0.02**
2014	451.95	77,639.35	**0.01**
2015	1,796.57	85,653.88	**0.02**
2016	335.43	81,906.90	**0.00**
2017	3,523.00	88,005.00	**0.04**
2018	6,214.00	91,970.00	**0.07**
2019	7,693.00	1,14,797.00	**0.07**

Table -3 Return on Assets

Source- JSW Annual reports

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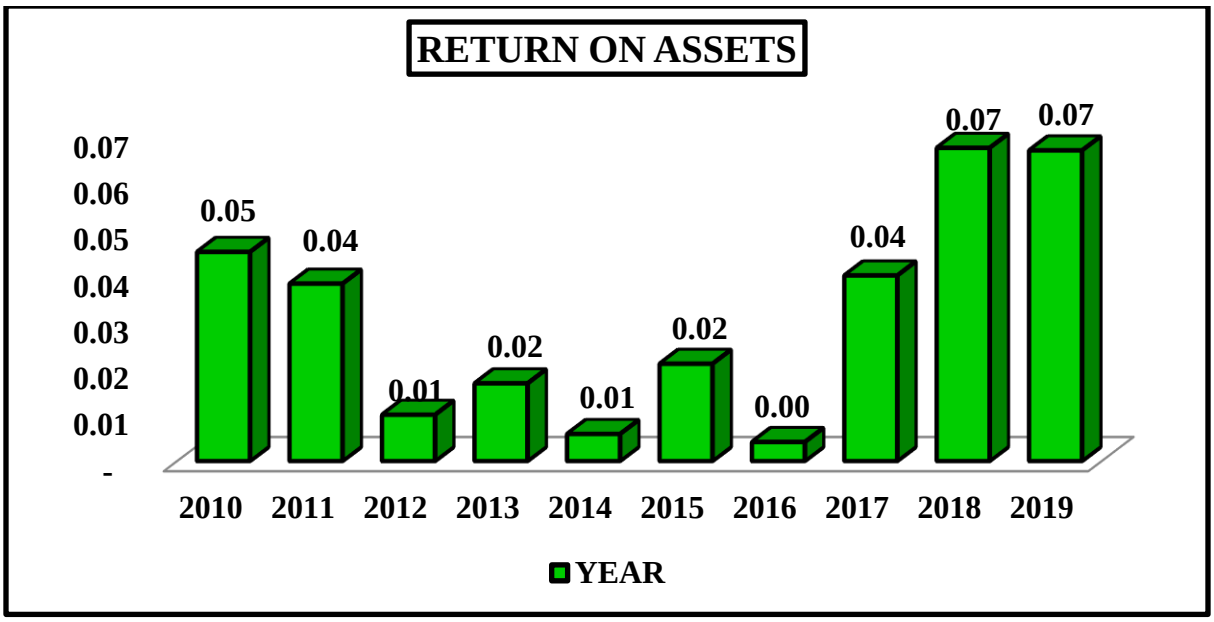

INTERPRETAIONS:

In the above figure the return on invest shows the increasing and decreasing value of the firm by the in year 2014 and 2016 the asset have been decreasing constantly so the firm have been decreased there liquidity position of the company but in the year 2018 and 2019 the return of assets have increasing constantly to 0.7 equally.

2. AVERAGE COLLECTION PERIOD

Average Collection Period = Account Receivable / Net Sale *365

YEAR	ACCOUNT RECEIVABLE	NET SALES X 365	AVERAGE COLLECTION PERIOD
2010	1,597.55	18,957.62	**31**
2011	1,756.00	24,105.35	**27**
2012	537.68	34,368.24	**6**
2013	963.11	38,209.65	**9**
2014	451.95	51,219.63	**3**
2015	1,796.57	52,971.51	**12**
2016	335.43	41,546.41	**3**
2017	3,523.00	55,604.00	**23**
2018	6,214.00	71,933.00	**32**
2019	7,693.00	84,757.00	**33**

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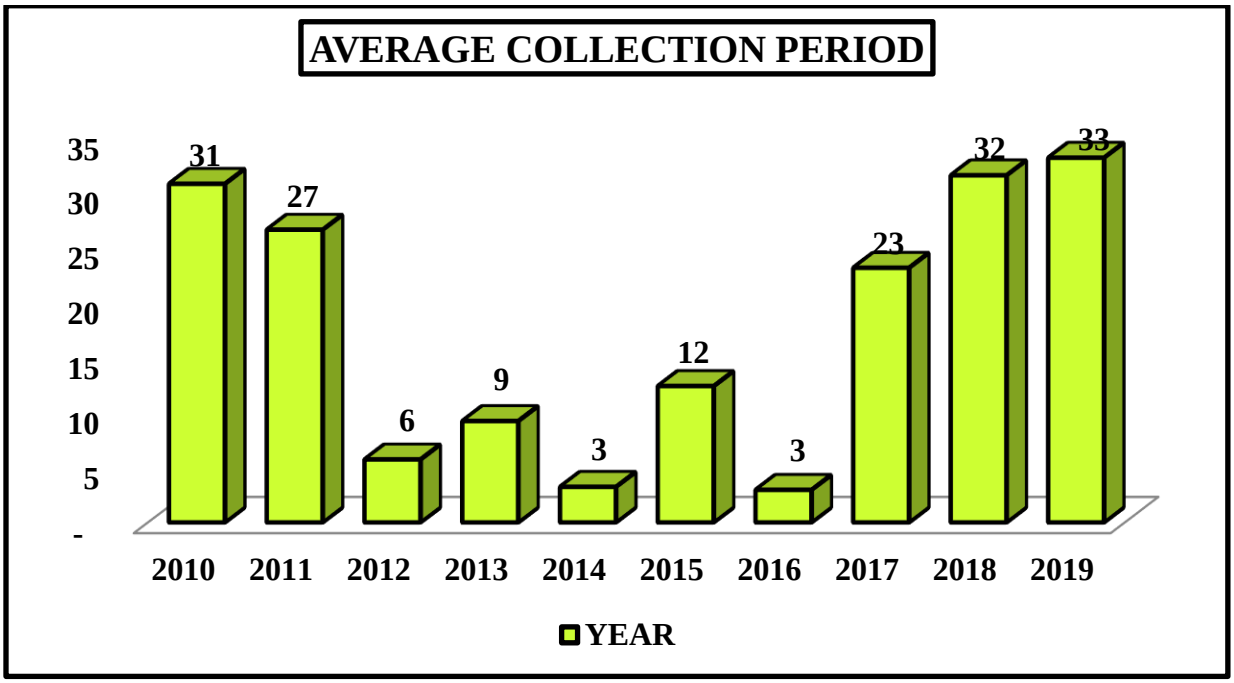
Table -4 Average collection Period

Source- JSW Annual reports



INTERPRETATION:

The ratio indicates the average number of days for which a firm has to wait before its receivables is converted in to cash. The RCI having average collection period in the year 2012-13, 2014-15 and 2015-16 is 6, 3, 6 days of collection performance which in adversely affect little bit to the liquidity of the firm.

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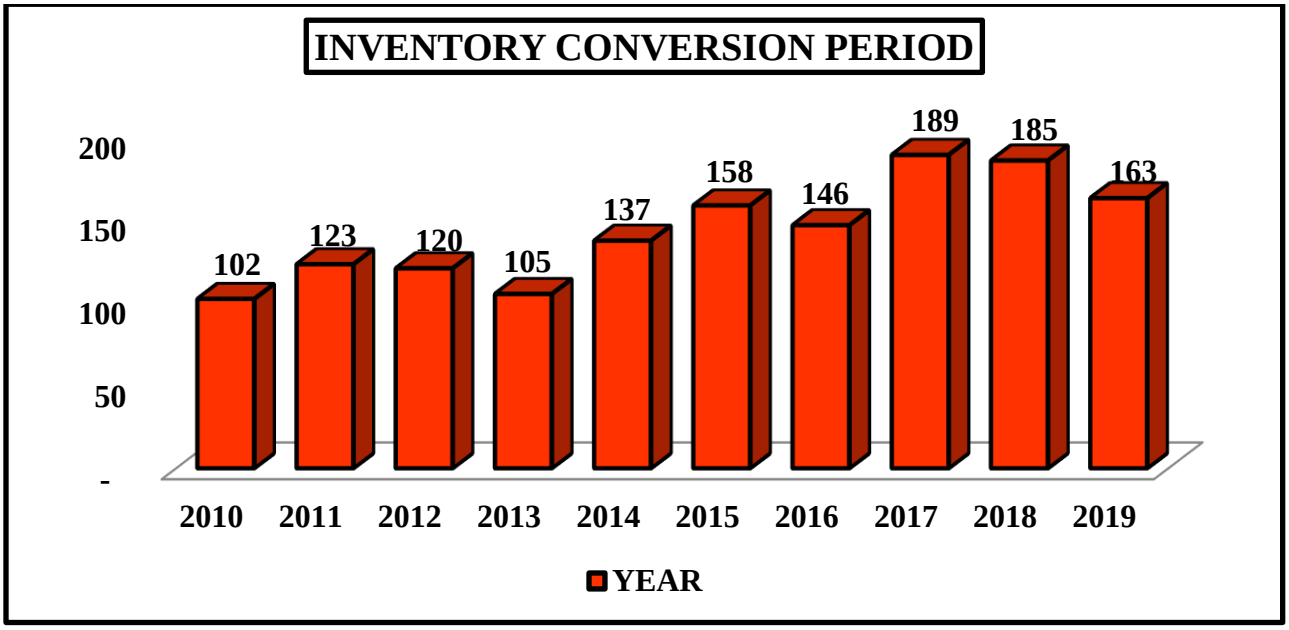
3. INVENTORY CONVERSION PERIOD

Inventory Conversion Period = Inventories / Cost of goods sold*365

YEAR	INVENTORIES	COAT OF GOOD SOLD X 365	INVENTORY CONVERSION PERIOD
2010	2,866.64	10,255.16	**102**
2011	4,409.70	13,091.17	**123**
2012	5,789.62	17,542.56	**120**
2013	5,495.23	19,102.10	**105**
2014	8,155.19	21,703.89	**137**
2015	11,009.04	25,374.42	**158**
2016	8,321.19	20,737.42	**146**
2017	11,395.26	22,024.00	**189**
2018	12,594.00	24,787.00	**185**
2019	14,548.00	32,625.00	**163**

Table -5 Inventory Conversion period

Source- JSW Annual reports



INTERPRETATION:

This ratio indicates average time taken to clearing the stocks in other words inventory has been disposed. The RCI takes on an average 100 to 150 days to clear .The stocks.in

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year 2017 and 2018 has been increasing 180 day to has been improve in inventory period of the firm

4. AVERAGE PAYMENT PERIOD

Average Payment Period = Accounts Payable / Cost of goods sold * 365

YEAR	ACCOUNTS PAYABLE	COST OF GOOD SOLD	AVERAGE PAYMENT PERIOD
2010	16,176.16	10,255.16	**45**
2011	16,476.16	13,091.17	**35**
2012	19,909.05	17,542.56	**47**
2013	21,345.25	19,102.10	**26**
2014	34,762.14	21,703.89	**54**
2015	37,984.48	25,374.42	**68**
2016	42,204.65	20,737.42	**70**
2017	43,334.00	22,024.00	**74**
2018	39,185.00	24,787.00	**69**
2019	47,377.00	32,625.00	**84**

Table -6 Average Payment Period

Source- JSW Annual reports

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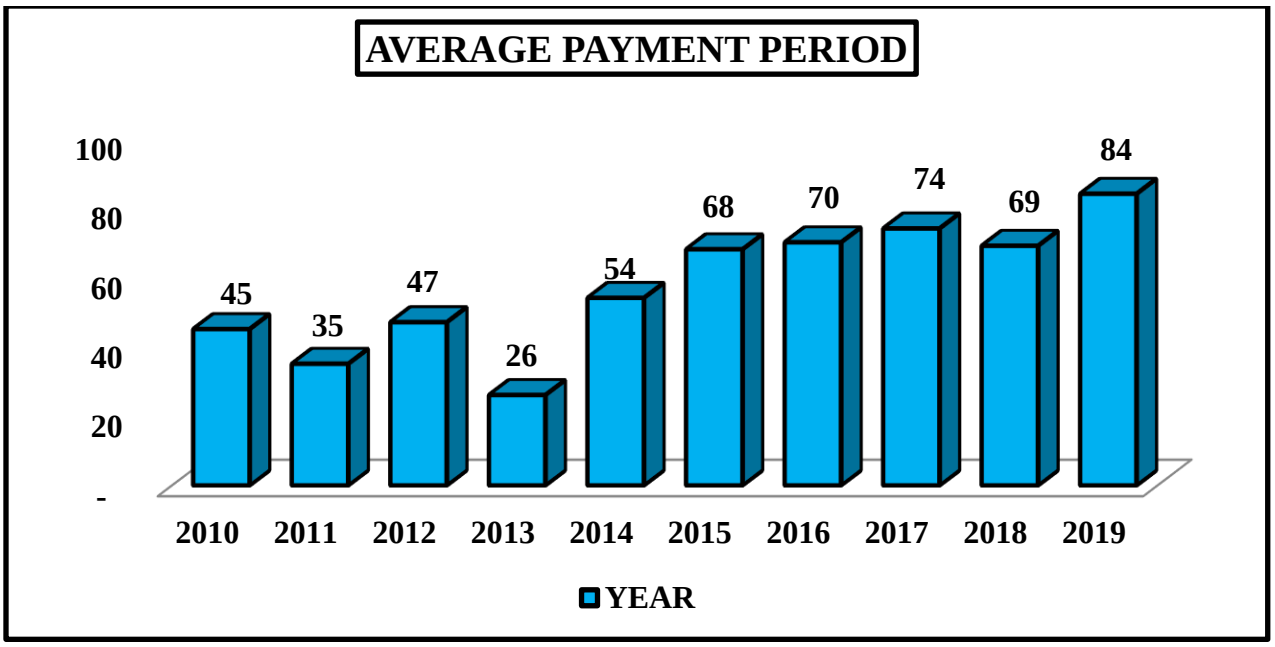

INTERPRETATION:

In the above diagram the average payment of the working capital have improved year by year. In the year 2010 to 2014 the average payment period have been decreasing constantly then in the year 2015 to 2019 have been increasing constantly to 60 to 80 days of the firm.

5. CASH CONVERSION CYCLE

Cash Conversion Cycle = Average Collection Period + Inventory Conversion Period – Average Payment Period

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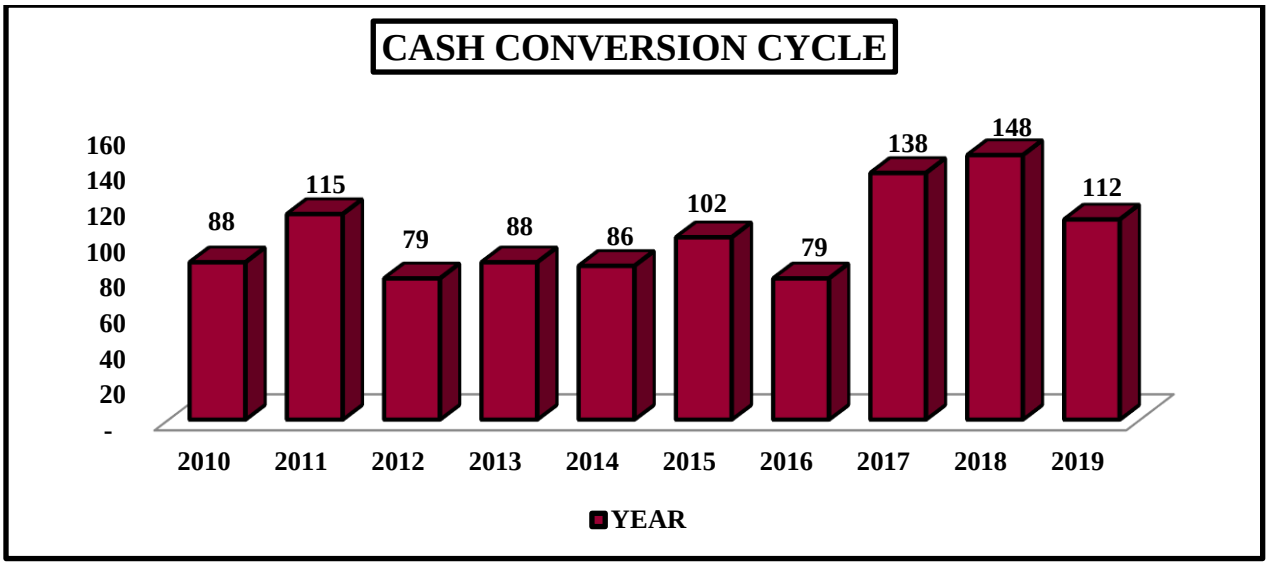
YEAR	AVERAGE COLLECTION PERIOD	INVENTORY CONVERSION PERIOD	AVERAGE PAYMENT PERIOD	CASH CONVERSION CYCLE
2010	31	102	45	88
2011	27	123	35	115
2012	6	120	47	79
2013	9	105	26	88
2014	3	137	54	86
2015	12	158	68	102
2016	3	146	70	79
2017	23	189	74	138
2018	32	185	69	148
2019	33	163	84	112

Table -7 Cash conversion cycle

Source- JSW Annual reports



sINTERPRETATION:

In the above diagram the cash conversion period have been increasing year by year from 2017 and 2018 in the 70 to 80 days and in the year 2010 to 2015 the cash conversion have decreasing

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constantly in the firm and the inventory payment have been constant to average collection period of the firm.

6. DEBT RATIO

Debt Ratio = Total Liabilities / Total Assets

YEAR	TOTAL LAIBILITIES	TOTAL ASSETS	DEBT RATIO
2010	10,255.16	35,406.32	0.29
2011	13,091.17	45,888.16	0.30
2012	17,542.56	53,922.12	0.33
2013	19,102.10	57,512.92	0.34
2014	21,703.89	77,639.35	0.28
2015	25,374.42	85,653.88	0.30
2016	20,737.42	81,906.90	0.25
2017	22,024.00	88,005.00	0.19
2018	24,787.00	91,970.00	0.27
2019	32,625.00	1,14,797.00	0.36

Table -8 Debt Ratio

Source- JSW Annual reports

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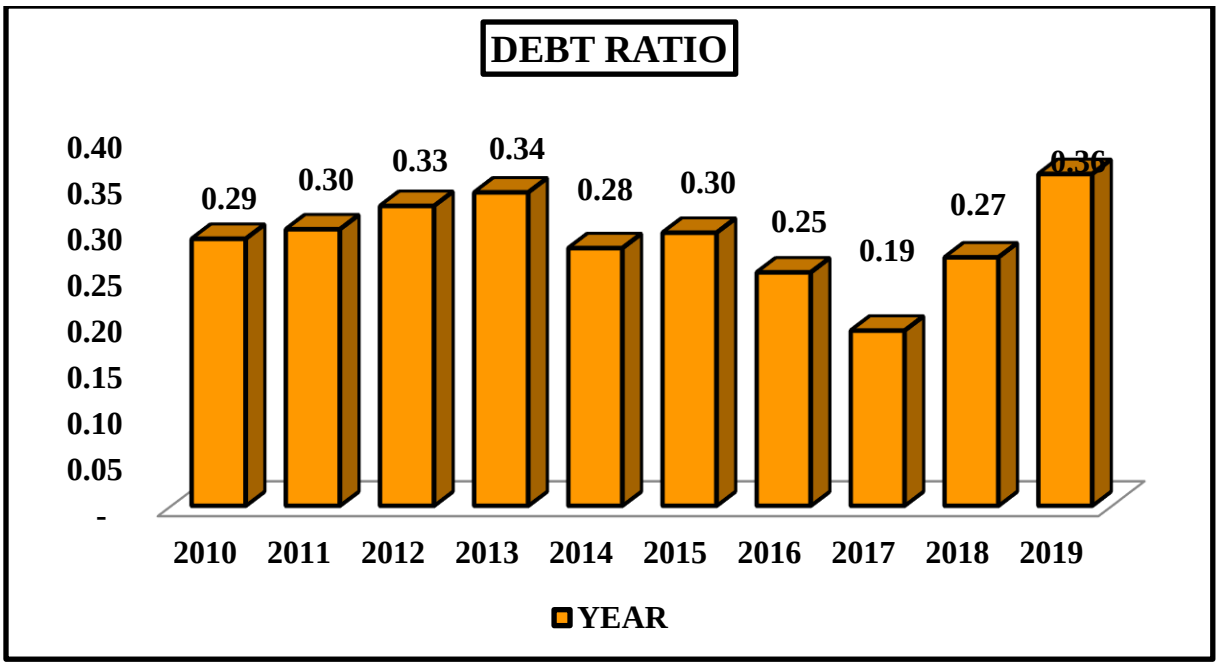

INTERPREATION:

In the above diagram debt ratio has been increased 2019 is 0.36 the total assets and laibities in the year 2010 to 2015 the debt ratio have been increasing and decreaing constantly hence the debt ratio of the firm shows improved in the firm

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FINDINGS:

1) The current ratio in 2010 was not good in position it shows below the standard ratio (i.e. 0.50 times) but at present after 9 year in 2019 it is above the standard ratio i.e. 1.18 times. At present company is in good position it can manage all liabilities.
2) Quick ratios of all the years (2010 to 2019) show below the standard ratio (i.e. 1.50). From 2013-2014 company's Quick Ratio was in below the standard ratio and it was constant. But in 2015 and 2016 Quick Ratio got some improvement
3) the return on invest shows the increasing and decreasing value of the firm by the in year 2014 and 2016 the asset have been decreasing constantly so the firm have been decreased there liquidity position of the company but in the year 2018 and 2019 the return of assets have increasing constantly to 0.7 equally.
4) The RCI having average collection period in the year 2012-13, 2014-15 and 2015-16 is 6, 3, 6 days of collection performance which in adversely affect little bit to the liquidity of the firm.
5) The RCI takes on an average 100 to 150 days to clear .The stocks in year 2017 and 2018 has been increasing 180 day to has been improve in inventory period of the firm

CONCLUSION:

1) Company has insufficient current assets and less working capital, so it is not able to maintain the adequate profit.
2) Expenses are increasing thereby indicating the necessity of corrective measures to face inflation and it is borrowing money which has decreased profit and working capital.

3) The net working capital of the firm is in decreasing trend and that to last year it had gone under negative working capital.

4) the main reason for that is it had incurred a loss in last year and it could maintain the adequate cash and bank balance.

BIBLOGRAPHY:

ARTICLES

ISBN: 978-93-83302-47-5

1. Bagchi B. and Khamrul B. (2012), Relationship between working capital management and profitability, a study of selected FMCG companies in India, business and economics journal, vol.3, No. 60, pp.1-11.
2. BaigViqar Ali, (2009), Working Capital Management, A Comparative Study of Different Ownerships, Management and Change, Vol.13, No.1, pp.85-130.
3. Chndra H. and Selvaraj A. ,(2012), working capital management in selected Indian steel companies, Indian Journal of finance, vol.6, No.11, pp.5-15.
4. Deloof, Marc, (2003), Does working capital management affects profitability of Belgiam firms, journal of business finance and accounting , vol.30, No.3 and 4, pp.573-587.
5. Dr.Panigrahi Ashok Kumar, (2012), Impact of working capital Management on profitability , A case study of ACC ltd , Asian Journal of Management, Vol.3,No.4, pp.210-218.
6. Felipe Schwartzman (2013). This paper discusses the importance of working capital in business industry Journal of Business and Management, Vol. 8, No. 4, pp. 11-17.
7. Gurumurthy N. and Reddy Jayanchandra K. , (2014), working capital management in power distribution companies in Andhra Pradesh – An empirical study ; global journal for research analysis, vol.3,No.4,pp.9-12.
8. Joseph Jisha (2014), Impact of working capital management in firms profitability and liquidity, An empirical study of Ashok Leyland ltd, International Journal of research in commerce and management, vol.5, No.2, pp.32-38
9. Joshi Lalitkumar and GhoshSudipta, (2012), working capital management of cipla ltd., An empirical study, International Journal of Marketing, Financial Services and management research, Vol.1, No.8, pp.170-186.
10. Madhavi K, (2014), Working Capital Management of paper mills, International Journal of Research in Business Management, Vol.2, No.3, pp.63-71.
11. Murarilalbaid (2013), Working Capital Management: An Essential Tool of Business Finance – A Case Study of National Plastic Industries Limited, IOSR Journal of Business and Management, Vol. 12, No. 2, pp. 1-7.

ISBN: 978-93-83302-47-5