



A STUDY ON WORKING CAPITAL MANAGEMENT OF SIEMENS INDIA LIMITED

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Abstract

The research paper examines the management of working capital of Siemens India Limited as it is an integral part of overall corporate management. The working capital is the life-blood and nerve centre of every business enterprise. Working Capital means the excess of current assets over current liabilities Working capital can be utilized for meeting day-to-day expenses and for maintaining fixed assets that are involved in everyday life of a business enterprise. Siemens India stands for engineering excellence, innovation, and reliability. It is one of the world's biggest producers of energy-efficient, resource-saving technologies; Siemens is a pioneer in infrastructure and energy solutions, as well as automation and software for industry. If any changes occur in the price of the product it will have a vast effect in the consumption level. Hence it is necessary to analyze the day to day operations of the company towards its production cost. The study period is for 10 years from 2007-2008 to 2016-2017. The objectives of the study are study the efficiency of the organization, to know the current financial growth using trend analysis and finally to analyze the statement of changes in Working Capital. The Analysis shows that the company is moving in the right path by taking effective measures for its further improvements and developments. Thus it is expected that there will a drastic growth of the company in the future.

Key Words: *Working Capital Management, Siemens, Current Assets, Current Liabilities.*

Introduction

The working capital is the life-blood and nerve centre of every business enterprise. No business can run effectively without adequate quantity of working capital. Management of working capital is an integral part of overall corporate management. Working capital can be utilized for meeting day-to-day expenses and for maintaining fixed assets that are involved in everyday life of a business enterprise. It is rightly said that the overall success or failure of a business enterprise mainly depends upon how the enterprise manage its working capital. Thus, proper management of working capital has become an essential part every business enterprise because it shows the efficiency and financial strength of an enterprise. Net working capital is calculated as current assets minus current liabilities. If current assets are less than current liabilities, an entity has a working capital deficiency, also called a working capital deficit. A company can be endowed with assets and profitability but short of liquidity if its assets cannot readily be converted into cash. Positive working capital is required to ensure that a firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses. The management of working capital involves managing inventories, accounts receivable and payable, and cash.

Siemens AG is a German conglomerate company headquartered in Berlin and Munich and the largest industrial manufacturing company in Europe with branch offices abroad. The principal divisions of the company are Industry, Energy, Healthcare (Siemens Healthineers), and Infrastructure & Cities, which represent the main activities of the company. The company is a prominent maker of medical diagnostics equipment and its medical health-care division, which generates about 12 percent of the company's total sales, is its second-most profitable unit, after the industrial automation division. The company is a component of the Euro Stoxx 50 stock market index. Siemens and its subsidiaries employ approximately 362,000 people worldwide and reported global revenue of around €75.6 billion in 2015 according to their annual report. In September 30, 2016, Siemens generated revenues of €79.6 billion and net income of €5.6 billion. At the end of September 2016, the company had around 351,000 employees worldwide. Siemens India had more than 16,000 employees (including all group companies of Siemens in India) and revenues of Rs.108, 089 million.



Review of Literature

Shin and Soenen, (1998)¹ highlighted that efficient Working Capital Management was very important for creating value for the shareholders. The way working capital was managed had a significant impact on both profitability and liquidity.

Adesh Sharma (2002)² He applied accelerator model with financial variables to determine the factors influencing investment in inventories in pesticides industry in India. Data had been taken from the Stock Exchange Official Directory, Mumbai in respect of 18 firms in this industry.

Deloof (2003)³ In their study he discussed that most firms had a large amount of cash invested in working capital. It can therefore be expected that the way in which working capital is managed will have a significant impact on profitability of those firms.

Sayaduzzaman (2006)⁴ In their article on “Working Capital Management: A study on Birla Corporation Cement Limited” mentions that the efficiency of working capital management of Birla Corporation cement Limited. is highly satisfactory due to the positive cash inflows and planned approach in managing the major elements of working capital. He found that working capital management helps to maintain all around efficiency in operations.

Mittal. ET .AL, (2010)⁵ He studied the examined the trends in Working Capital management taking the case of the cement industry in India as their sample. He studied a sample of two companies namely Gujarat Abuja Cements Ltd (GAC Ltd) and Associated Cement Companies Limited (ACC Ltd), considered the market leaders and principal competitors. The period of study was for four years, 2006-2009.

Statement of the Problem

Siemens India stands for engineering excellence, innovation, and reliability. It is one of the world’s biggest producers of energy-efficient, resource-saving technologies; Siemens is a pioneer in infrastructure and energy solutions, as well as automation and software for industry. The company is also a leader in medical imaging equipment, laboratory diagnostics, and clinical IT. Siemens also provides business-to-business financial solutions, rail automation and wind power solutions. If any changes occur in the price of the product it will have a vast effect in the consumption level. Hence it is necessary to analyze the day to day operations of the company towards its production cost. This study is done to analyze the Working Capital Management of Siemens India

Objective of the Study

1. To study the efficiency of the company.
2. To know the current financial growth using trend analysis
3. To analyze the statement of changes in Working Capital.

Scope of the Study

The scope of the study is to find out Working capital of Siemens India Ltd for a period of 10 years from 2007-2008 to 2016-2017. A sincere attempt has been made to include all the aspects relating to the study. For this purpose analysis of working capital of the company has done from the last ten years published financial statement.

Research Methodology

Research Design: The study carried out here is analytical research. Analytical study is a system of procedures and techniques of analysis applied to quantitative data.

Data collection: Companies’ annual reports and their official websites serve as the secondary data.

Period of study: The study period is for 10 years from 2007-2008 to 2016-2017.

Tools for Analysis: The following financial tools are used in the study,

1. Correlation Analysis
2. Trend Analysis
3. Statement of changes in Working Capital



Limitations of the Study

Only ten years data relating to Siemens India Limited is used for analysis. The study is based on the information given in the secondary data and analysis is made only for the past data so the future variation in all aspects affects the study.

Net Working Capital

Net working capital is the aggregate amount of all current assets minus current liabilities. It is used to measure the short-term liquidity of a business, and can also be used to obtain a general impression of the ability of company management to utilize assets in an efficient manner. If the net working capital figure is substantially positive, it indicates that the short-term funds available from current assets are more than adequate to pay for current liabilities as they come due for payment. If the figure is substantially negative, then the business may not have sufficient funds available to pay for its current liabilities, and may be in danger of bankruptcy.

$$\text{Net Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

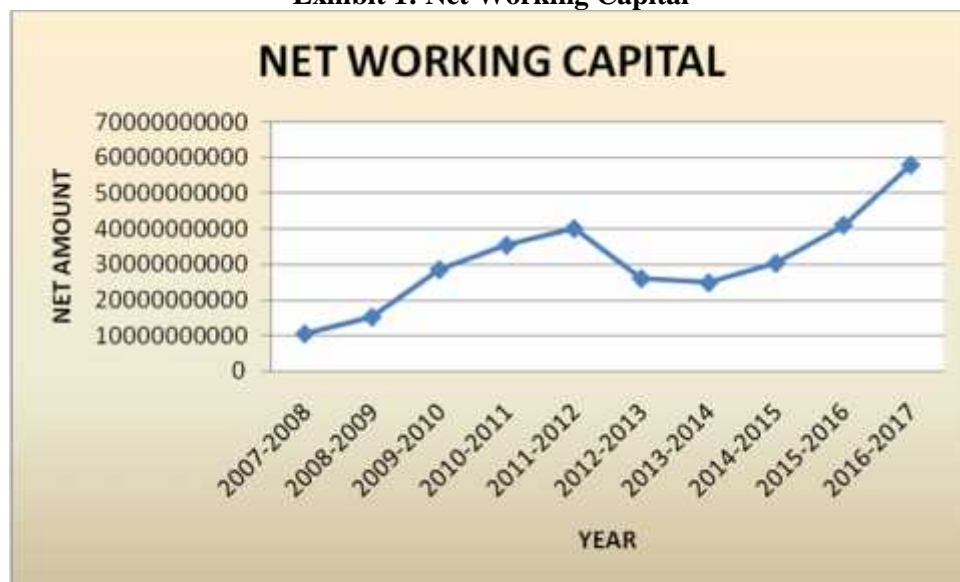
Table 1: Net Working Capital

Year	Current Assets	Current Liabilities	Net Working Capital
2007-2008	40691440000	30003464000	10687976000
2008-2009	57253249000	41868243000	15385006000
2009-2010	69211748000	40585370000	28626378000
2010-2011	79342081000	43892262000	35449819000
2011-2012	85504957000	45376326000	40128631000
2012-2013	74775000000	48621000000	26154000000
2013-2014	66164000000	41218000000	24946000000
2014-2015	74262000000	43844000000	30418000000
2015-2016	77463000000	36334000000	41129000000
2016-2017	91002000000	33050000000	57952000000

Source: Secondary Data

From the above table it is inferred that the business is able to pay off its short-term liabilities. Also, a high working capital can be a signal that the company might be able to expand its operations. Working capital also gives an idea of company's efficiency. The company having high net working capital helps to runs its business smoothly.

Exhibit 1: Net Working Capital





Correlation Analysis

Correlation is a statistical measure that indicates the extent to which two or more variables fluctuate together. A positive correlation indicates the extent to which those variables increase or decrease in parallel; a negative correlation indicates the extent to which one variable increases as the other decreases. A possible correlation ranges from +1 to -1. A zero correlation indicates that there is no relationship between the variables. A correlation of -1 indicates a perfect negative correlation, meaning that as one variable goes up, the other goes down. A correlation of +1 indicates a perfect positive correlation, meaning that both variables move in the same direction together.

Table 2: Correlation between Total Liabilities and Cash and Bank Balance

Year	Total Liabilities	Cash & Bank Balance
2007-2008	51210954000	4636219000
2008-2009	69841748000	9130895000
2009-2010	82446722000	14449022000
2010-2011	94344782000	18534430000
2011-2012	101577000000	12750396000
2012-2013	106447000000	9768000000
2013-2014	98440000000	6038000000
2014-2015	102588000000	11210000000
2015-2016	105277000000	20959000000
2016-2017	117415000000	35094000000
Correlation		0.61

From the above table, it is clear that the coefficient of correlation is (0.61), which indicates a strong positive correlation, and means that the variables, total liabilities and cash and bank balance move in the same direction.

Table 3: Correlation between Investment and Loans & Advances

Year	Investment	Loans & Advances
2007-2008	4675878000	4754188000
2008-2009	5236464000	6173220000
2009-2010	4769723000	10457640000
2010-2011	3884606000	12448994000
2011-2012	5000	14060017000
2012-2013	410000000	11031000000
2013-2014	432000000	11073000000
2014-2015	82000000	14134000000
2015-2016	1764000000	14958000000
2016-2017	1647000000	15526000000
Correlation		-0.68

From the above table, it is clear that the coefficient of correlation is (.0.68), which indicates a negative correlation, and shows that the variables, investment and loans and advances move in the opposite direction.



Table 4: Correlation between Total Income and Total Expenses

Year	Total Income	Total Expenses
2007-2008	78696369000	70737601000
2008-2009	84095860000	76423960000
2009-2010	87449154000	75190020000
2010-2011	94776805000	82189326000
2011-2012	121967319000	109217784000
2012-2013	129774000000	122566000000
2013-2014	113871000000	112010000000
2014-2015	107665000000	103056000000
2015-2016	106728000000	97592000000
2016-2017	109728000000	100680000000
Correlation		0.98

From the above table, it is clear that the coefficient of correlation is (.98), which indicates a perfect positive correlation, and shows that the variables, total income and total expenses perfectly move in the same direction together.

Table 5: Correlation between Net Sales and Net Profit

Year	Net Sales	Net Profit
2007-2008	76778038000	5965402000
2008-2009	82503628000	5933266000
2009-2010	83367335000	10448508000
2010-2011	92706690000	8272115000
2011-2012	118935721000	8454259000
2012-2013	129199000000	3432000000
2013-2014	113526000000	1940000000
2014-2015	106626000000	6032000000
2015-2016	105124000000	11833000000
2016-2017	108089000000	28880000000
Correlation		-0.01

From the above table, it is clear that the coefficient of correlation is -(0.01), which indicates a negative correlation, and it shows that there is no relationship between the net sales and net profit.

Table 6: Correlation between Current Assets and Current Liabilities

Year	Current Assets	Current Liabilities
2007-2008	40691440000	30003464000
2008-2009	57253249000	41868243000
2009-2010	69211748000	40585370000
2010-2011	79342081000	43892262000
2011-2012	85504957000	45376326000
2012-2013	74775000000	48621000000
2013-2014	66164000000	41218000000
2014-2015	74262000000	43844000000
2015-2016	77463000000	36334000000
2016-2017	91002000000	33050000000
Correlation		0.35



From the above table, it is clear that the coefficient of correlation is (.35), which indicates a positive correlation, shows that variables, current assets and current liabilities perfectly move in the same direction together.

Trend Analysis

A Trend Analysis is an aspect of technical analysis that tries to predict the future movement of a stock based on past data. Trend Analysis is based on the idea that what has happened in the past trades and an idea of what will happen in the future.

Table 7: Trend Analysis on Inventory

Year	Inventory	Percentage
2007-2008	7490509000	100
2008-2009	7621143000	102
2009-2010	9721971000	130
2010-2011	15335216000	205
2011-2012	8078344000	108
2012-2013	9431000000	126
2013-2014	9334000000	125
2014-2015	10472000000	140
2015-2016	9509000000	127
2016-2017	9993000000	133

Source: Annual Report Base Year=2007-2008

The above table shows that stock is facing a fluctuating trend. This shows that the company's inventory management is quite satisfactory.

Exhibit 2: Trend Analysis on Inventory





Table 8: Trend Analysis on Earnings per Share

Year	Earnings Per Share	Percentage
2007-2008	35.39	100
2008-2009	17.6	50
2009-2010	30.99	88
2010-2011	24.53	69
2011-2012	24.95	71
2012-2013	9.75	28
2013-2014	5.45	15
2014-2015	16.94	48
2015-2016	33.23	94
2016-2017	81.1	229

Source: Annual Report Base Year=2007-2008

The above table shows that the earnings per share is facing a fluctuating trend. It varies in all the year of study. This shows that the company earning per share is quite satisfactory.

Exhibit 3: Trend Analysis on Earnings per Share



Table 9 Trend Analysis on Reserves

Year	Reserves	Percentage
2007-2008	15571636000	100
2008-2009	20016524000	129
2009-2010	28491887000	183
2010-2011	34103468000	219
2011-2012	37481287000	241
2012-2013	32812000000	211
2013-2014	33685000000	216
2014-2015	33670000000	216
2015-2016	33633000000	216
2016-2017	33665000000	216

Source: Annual Report Base Year=2007-2008



The above table shows that stock is facing an increasing trend. This shows that the company’s reserve is quite satisfactory.

Exhibit 4: Trend Analysis on Reserves



Table 10: Trend Analysis on Net Income

Year	Net Income	Percentage
2007-2008	5965402000	100
2008-2009	5933266000	99
2009-2010	10448508000	175
2010-2011	8272115000	139
2011-2012	8454259000	142
2012-2013	3432000000	58
2013-2014	1940000000	33
2014-2015	6032000000	101
2015-2016	11833000000	198
2016-2017	28880000000	484

Source: Annual Report Base Year=2007-2008

The above table shows that net income is facing an upward trend. It varies from year to year. This shows that the company’s net income is quite satisfactory.

Exhibit 5: Trend Analysis on Net Income

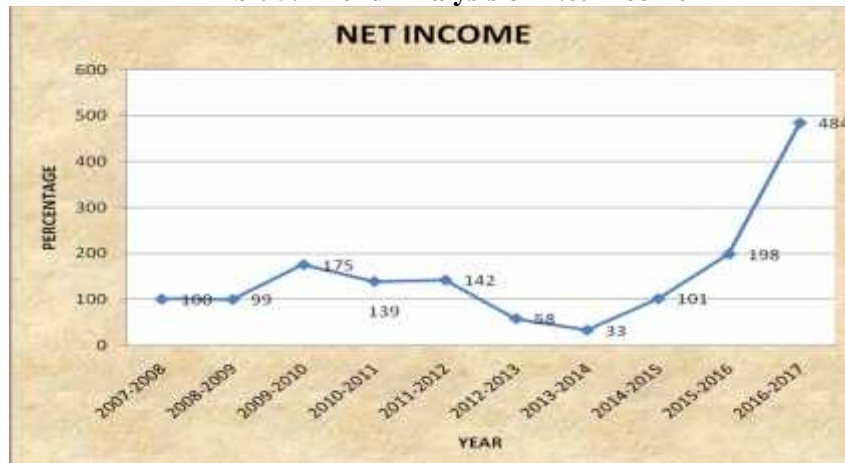




Table 11: Trend Analysis on Net Sales

Year	Net Sales	Percentage
2007-2008	76778038000	100
2008-2009	82503628000	107
2009-2010	83367335000	109
2010-2011	92706690000	121
2011-2012	118935721000	155
2012-2013	129199000000	168
2013-2014	113526000000	148
2014-2015	106626000000	139
2015-2016	105124000000	137
2016-2017	108089000000	141

Source: Annual Report Base Year=2007-2008

The above table shows that sales facing a fluctuating trend. This shows that the company net sale is quite satisfactory.

Exhibit 6: Trend Analysis on Net Sales



Table 12: Trend Analysis on Working Capital

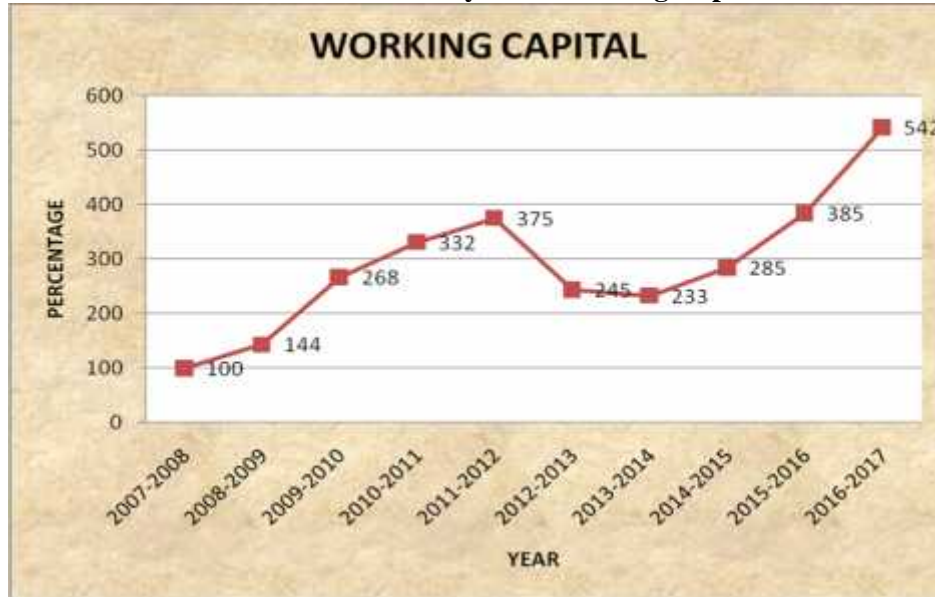
Year	Working Capital	Percentage
2007-2008	10687976000	100
2008-2009	15385006000	144
2009-2010	28626378000	268
2010-2011	35449819000	332
2011-2012	40128631000	375
2012-2013	26154000000	245
2013-2014	24946000000	233
2014-2015	30418000000	285
2015-2016	41129000000	385
2016-2017	57952000000	542

Source: Annual Report Base Year=2007-2008



The above table indicates that working capital is facing an upward trend. This shows that the working capital management is quite satisfactory.

Exhibit 7: Trend Analysis on Working Capital



Statement of Changes in Working Capital

Working Capital means the excess of current assets over current liabilities. Statement of changes in working capital is prepared to changes in the working capital between the two balance sheets. The primary purpose of this statement is to explain the net changes in working capital.

Table 13: Changes in Working Capital For The Year 2007-2008 To-2016-2017

Year	Net Increase in Working Capital	Net Decrease in Working Capital
2007-2008	-	2708354000
2008-2009	-	7818274000
2009-2010	-	3846264000
2010-2011	-	2366217000
2011-2012	10013092000	-
2012-2013	678000000	-
2013-2014	-	7222000000
2014-2015	-	2065000000
2015-2016	-	8564000000
2016-2017	-	14758000000

The schedule of working capital from 2007-2008 to 2016-2017 were prepared and the result indicates that there was decrease in net working capital from 2007-2008 till 2010-2011 and there was an increase in 2010-2011 and 2012-2013 and again it showed a decreasing trend.

Conclusion

The Study has been analyzed on the working capital management of “SIEMENS INDIA LIMITED” with the help of Trend Analysis, Coefficient of Correlation and Statement of changes in Working capital. Working capital is very important for business to meet the payment to creditors, reduction of operating and financial expenses etc. The effective utilization of working capital was analyzed and it brought into light the various problem faced by



the company. The Analysis shows that the company is moving in the right path by taking effective measures for its further improvements and developments. The company has to focus on generating profit in the coming years by taking care of both internal and external factors. Thus it is expected that there will a drastic growth of the company in the future.

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