

Impact of Negative Working Capital on Profitability: An Empirical Analysis of Select Automobile Manufacturing Companies in India

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Abstract

This paper examines the Impact of Negative Working Capital Management on the Profitability of Indian Automobile manufacturing companies. Moreover the study outlines the main factors that basically determine the working capital in the financials of Indian automobile sector. All the researches on this topic conclude that the companies should avoid under-investment in working capital if they want higher profit margins. With negative working capital there can be a danger of insolvency but it is not true for ever. If the company is having good image in the market and good relation with their creditors it can get the benefit from the negative working capital also. Figures were collected from the published Annual Reports of five Indian Automobile manufacturing companies listed in India from 2007 to 2012. The association between working capital and profitability examined and the results proved that there is inverse and positive association between negative working capital management and profitability in Indian Automobile sector.

Introduction

Working capital (WC) is important in day-to-day activities of the business and it is common measure of a company's overall health. The term working capital refers to company's investment in short term assets, cash, short term securities, accounts receivables and inventories. It is management of current assets and current liabilities to minimize the risk of solvency and maximization the return on assets. Working capital is the excess of current assets over current liabilities. If the company cannot sustain an acceptable level of working capital, it may lead to insolvency and may even end up into bankruptcy. The major task of today's financial manager is how efficiently he manages from the point of view of both liquidity and profitability. Inventory also plays significant role in the working capital. The more inventories you build the longer the company's working capital tied up. There are several tools available to evaluate the company's working capital viz., Debtors turnover ratio, Inventory Turnover ratio, current ratio and Quick ratio. The basic objective of working capital is to ensure that the company is able to meet both settling short term debts and future operational expenses.

Concept of Negative Working capital

Negative working capital on the other hand is reverse situation which means current assets are lesser when compared to current liabilities. It does not reflect always bad financial condition, it means the business is funded by customers, if the company is in a good condition and debtors are ready to wait. Negative WC is excess of current liabilities over current assets. It arises when customer are paying in advance, collection of cash before making payment to creditors which leads to negative working capital. Adopting best collection policy, efficient negotiation with suppliers for more credit and better inventory management are the main causes to run the business with negative working capital. There are some companies which are having Negative working capital companies enjoys good amount of profits and Return on Capital Employed. In the present scenario negative working capital considered to be a sign of efficiency of corporate and indication of efficient management of business.

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Statement of Problem

“Does Negative Working Capital Management affect Profitability of Indian Automobile sector?”

Research Objective

The basic objective of the study is to analyze the impact of low or negative working capital on the profitability of the organization.

Research Gap

There are many researches conducted on the topic of working capital management and its impact on profitability, but there is no major research has been done on negative working capital management and its impact on profitability. Previous researches suggest management of working capital was found to have significant effect on both profitability and liquidity in different countries. Previous studies suggest if we want to improve profitability we should manage working capital effectively. As the above stated researches conclude that the companies should avoid under-investment in the working capital if they wanted higher profit margins. This article attempt to study the profitability of select automobile manufacturing organization which generally operates in negative working capital zone.

Research Methodology

For the purpose of the study a sample size of five Indian automobile manufacturing listed companies have been selected. The data has been collected from the published Annual Reports as well as from the website of mooneycontrol.com. The financial data has been compiled to suite the researcher's requirement keeping in view the scope of the study. The companies selected for the study are Ashok Leyland, Bajaj Auto, Hero Motorcorp, Mahindra & Mahindra and Tata Motor Limited. (Table I)

Limitations of the Study

The period is covered only for six years data based on the secondary sources. The study is depends on select Indian automobile manufacturing listed companies. The accuracy and quality of the results is purely based on secondary data and hence the same may vary if one takes several factors into account and larger samples of data.

Hypothesis Testing: The hypothesis of the study is as follows:

There is direct and positive relationship exists between working capital and profitability of the Indian automobile sector.

Companies more efficient in managing their working capital is expected to generate high level of profitability and vice versa.

Sources of the Data

For the purpose of the study secondary data has been used. The data has been collected from the published Annual Reports of the company as well as from the website <http://moneycontrol.com> The data for the study period covers between 2006-07 and 2011-2012. Refer Table II .

Analysis & Discussion

In the case of Ashok Leyland, it has been found that, during the total study period of six years, negative working capital has arisen one time during 2011-12. The company had a good amount of working capital in all the years except 2011-12. The average number of days in working capital is 19 with low standard deviation of 12.4 and high co-efficient of variation is 64%. The trend of the profitability % are not impressive. The average profitability is 6% with low standard deviation of 1.7 and co-efficient of variation is 27%. The higher the inventory in days results in blocking of funds in inventory which may ultimately result in heavy losses. The average inventory conversion period is 59 days with low standard deviation of 9.7 and low co-efficient of variation is 16%. Lower the debtors days, the better it is, since it indicates that the debts are being collected more promptly. The average debtors days is 33 days with low standard deviation of 10.3 and co-efficient of variation is 31%. The dividend payout ratio was higher during 2008-09 when the company had good amount of working capital whereas for the remaining years it maintained balanced rest of the years. Thus it can be said that here positive working capital not able to generate good profit whereas in the latter cases companies with negative working capital could able to generate sufficient profit. Hence we cannot be said that there is direct and positive relationship between working capital and profitability. Table III.

In the case of Bajaj Auto Limited it has been found that negative working capital has arisen in all the years except 2012. The average working capital for the whole years is negative i.e., Rs.(402). Thus it can be said that the company has managed to run the business without any working capital for the period of study. But it is surprised to see that the impact of negative working capital on profitability is very much positive. The profitability % was higher during 2010 & 2011 at the time of highest negative working capital compared to other previous years. The dividend payout ratio also registered higher during 2010. However the debtors collection period has seen declining trend. The average inventory period is 12 days with low standard deviation of 1.1 and low co-efficient of variation 9% which means that the company has been able to effectively control both inventory and receivables enabling it to continue to operate on negative working capital. **Table IV**

In case of Hero Motorcorp, it has been found that during the total study period of six years, the negative working capital has arisen five times except 2012. The profitability % and dividend payout ratio % shows an increasing trend between 2007 and 2010. The lower margin during 2011 despite healthy growth in sales volume on account of higher prices of raw materials and components and additional cost of meeting emission norms. The inventory and debtors were always kept lower with the average of 9 days and 6 days respectively. Thus the company has managed to run the business without any working capital but the impact of negative profitability is very much positive. As the company with negative working capital due to lower cost of capital. **Table V**

In the case of Mahindra & Mahindra, it has been found that negative working capital has arisen two times during 2011 & 2012. The number of days in working capital shows declining trend which reveals how efficient the company is in using its working capital to generate sales revenue. The average profitability is 13% with low standard deviation of 2.8 and low co-efficient of variation 22%. The global financial crisis which impacted the margin significantly during 2009. The debtor days has seen lowest during the period of negative working capital. The average dividend payout ratio is 26% with low

standard deviation of 1.2 and low co-efficient of variation. Thus, it can be said that lower or negative working capital instead of adversely affecting the profitability, indicates efficiency in the operation as well as minimized cost of capital, which is important for shareholders value creation. **Table VI.**

In the case of Tata Motors Limited, it has been found that during the total study period of six years, negative working capital has arisen all the years except in 2007. The average working capital for is negative Rs. (3492). The average number of days in working capital is negative i.e., (17 days) which means the company has managed to run the business without any working capital for the entire period of study. The average PBT is 6% with low standard deviation of 2.9 and moderate co-efficient of variation 47%. The average inventory conversion period is 28 days with low standard deviation of 2.1 and low co-efficient of variation 8% which means high degree of uniformity during the period under study. The average debtor days is 17 days with low standard deviation of and low co-efficient of variation 26%. The dividend payout ratio shows increasing trend and very much positive irrespective of prevalence of negative working capital. Thus it can be said that working capital and PBT goes in the same direction and with same proportion indicating that there exists a positive relationship between working capital and profitability.

Conclusion

It has been observed that companies generating good profit with a negative working capital as well as companies not able to generate good profit even with positive working capital. Hence we reject the null hypothesis that there is a direct and positive relationship exists between amount of working capital and profitability i.e., higher the working capital, higher is the profit margin and vice versa. It is suggested that further research should be carried out in this area with some different aspects of working capital management such as cash conversion cycle, payables, current ratio, quick ratio asset turnover ratio which are essential measurement of the working capital management.

List of Acronyms

Net WC = Net Working Capital

PBT = Profit before Tax

S.D = Standard Deviation

C.V = Co-efficient of Variation

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Table I : Details of Sample Companies

Sl.No	Name of Company	Net Sales as on 31-03-2012 (Rs in Cr.)	Total Assets as on 31-03-2012 (Rs in Cr.)	Date of Incorporation	Regd Office
1	Ashok Leyland	13,309.59	11,915.75	1948	Chennai
2	Bajaj Auto	19,516.65	11,081.07	1945	Mumbai
3	Hero Motorcorp	23,586.80	9,888.92	1984	New Delhi
4	Mahindra & Mahindra	31,853.52	23,912.00	1945	Mumbai
5	Tata Motors	54,306.56	54,519.28	1945	Mumbai

Table II : Ashok Leyland Limited

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Average	S.D	C.V %
Sales (Rs in Cr.)	8304.7	8947	6667	7872.6	11177	12842	9302	2,287.1	25%
Net WC (Rs in Cr.)	575	218	720	736	365	-538	346	478.2	138%
No of days in WC	26	16	26	34	18	-2	19	12.4	64%
PBT %	7.3	7.1	3.1	6.9	7.2	5.4	6	1.7	27%
Inventory (in days)	53	46	68	71	62	55	59	9.7	16%
Debtors (in days)	23	21	39	49	35	33	33	10.3	31%
Dividend Payout ratio %	51	50	82	55	49	55	57	12.5	22%

Table III : Bajaj Auto Limited

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Average	S.D	C.V %
Sales (Rs in Cr.)	9521	9169	8932	11921	16609	19804	12659	4,541.3	36%
Net WC (Rs in Cr.)	-279	-112	-228	-1274	-1083	565	-402	676.5	-168%
No of days in WC	-12	-8	-7	-23	-26	-5	-13	8.9	-67%
PBT %	18.1	12.3	10.7	20.2	26.2	20.3	18	5.7	32%
Inventory (in days)	10	12	13	13	11	12	12	1.1	9%
Debtors (in days)	16	16	13	9	7	7	11	4.2	37%
Dividend Payout ratio %	38	37	49	68	35	43	45	12.4	28%

Table IV : Hero Motorcorp

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Average	S.D	C.V %
Sales (Rs in Cr.)	10090	10517	12565	16099	19688	23944	15484	5,512.0	36%
Net WC (Rs in Cr.)	-566	-888	-1039	-1949	-4640	490	-1432	1,758.0	-123%
No of days in WC	-24	-25	-28	-34	-61	-32	-34	13.8	-41%
PBT %	12.3	13.4	14.2	17.5	12.2	11.9	14	2.1	15%
Inventory (in days)	10	9	8	9	8	9	9	0.8	9%
Debtors (in days)	9	11	7	3	2	3	6	3.7	63%
Dividend Payout ratio %	46	46	36	115	126	44	69	40.3	58%

Table V: Mahindra & Mahindra

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Average	S.D	C.V %
Sales (Rs in Cr.)	9921	11310	13081	18516	23460	31854	18024	8,440.5	47%
Net WC (Rs in Cr.)	1063	348	283	606	-198	-46	343	454.8	133%
No of days in WC	30	23	9	9	3	-1	12	11.9	99%
PBT %	14.3	12.4	8.0	15.4	15.0	11.3	13	2.8	22%
Inventory (in days)	31	29	25	20	26	27	27	3.7	14%
Debtors (in days)	25	28	29	23	20	19	24	4.1	17%
Dividend Payout ratio %	25	24	28	25	26	25	26	1.2	5%

Table VI : Tata Motors Limited

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Average	S.D	C.V %
Sales (Rs in Cr.)	27470	28731	25630	35593	47088	54307	36470	11,747.9	32%
Net WC (Rs in Cr.)	2784	-273	-1136	-5835	-8029	-8465	-3492	4,606.5	-132%
No of days in WC	35	16	-10	-36	-54	-55	-17	37.6	-218%
PBT %	9.4	9.0	4.0	7.9	4.7	2.5	6	2.9	47%
Inventory (in days)	28	25	27	27	30	31	28	2.1	8%
Debtors (in days)	10	12	19	20	19	18	17	4.2	26%
Dividend Payout ratio %	35	33	35	44	81	118	58	34.7	60%