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Paradigm shift of administration in working finance– With special reference to Indian commercial vehicle industry

Dr. K. Punitha
puniselva71@gmail.com
J.J. College of Arts and Science, Pudukkottai, Tamil Nadu

ABSTRACT

Working finance is concerned with the administration of current assets and current liabilities and their interrelationships. Working finance is the prime source to meet the routine expenses of the business. In the event of working finance being ill-managed; the viability of a company may be jeopardized. It is desirable that a company has neither inadequate working finance nor the excessive amount of it. Hence, there is an imperative need for effective management of working finance. This study attempts to examine the efficiency and effectiveness of working finance employed in the Indian commercial vehicle manufacturing sector. A cross-sectional analysis of the Indian commercial vehicle manufacturing industry from the period 2000-2001to 2009-2010 indicated that the mean value of working finance of Ashok Leyland Ltd. (ALL) was higher than that of other companies. However, the variation was more in Tata Motors Ltd (TML) than in other companies. The TML was superior in the compound annual growth rate (CAGR) with a value of 1255.94. This indicates that the operating efficiency of Tata Motors Ltd. is better than of others and the risk-bearing power is also higher while growing companies require huge amounts. Nowadays leading companies are able to generate cash within short periods of time. So they maintain their working finance at zero or negative level. That is one of the reasons why companies' actual values of working finance are not matching trend values of working finance.

Keywords— *Working finance, Commercial vehicle, Trend value, Operating efficiency*

1. INTRODUCTION

In the pleasant competitive environment, credit sales play a vital role. Finished goods are not converted into sales immediately. Normally it requires some time for conversion. In between the operating cycle period, working finance is a prerequisite in the business. Firms vary widely with respect to their ability to manage their net-working finance. There exists a need for an overall measure of effectiveness. Every business should have enough funds for smooth functioning. Both excess and inadequate working finance are dangerous from the firm's point of view. Excessive working finance means idle funds which earn no profits for the firm. The paucity of working finance not only impairs the firm's profitability but also results in production interruptions and inefficiencies. Each and every rupee employed in the business has value. In this situation, measuring the efficiency and effectiveness of management of working finance is inevitable.

2. THE PRESENT STATUS OF THE INDIAN AUTOMOBILE INDUSTRY

The Indian automobile industry is nearly six decades old. The industry encompasses commercial vehicles, multi-utility vehicles, passenger cars, two wheelers, three wheelers, tractors, and auto components. Out of 262 companies, 220 make only Auto ancillaries, 7 are commercial vehicle companies, 5 are motorcycles/ moped companies, 8 are passenger car manufacturers 12 are a scooter and 3 wheeler companies and 10 tractor manufacturing companies. With a total investment of Rs.50, 000 crores, the turnover was Rs. 59,500 crores in the Automotive Sector during 1999-2000. It employs 4, 50,000 people directly and 100, 00,000 people indirectly and is now inhabited by global majors in keen contention.

India manufactures about 38,00,000 2-wheelers, 5,70,000 passenger cars, 1,25,000 Multi Utility Vehicles, 1,70,000 Commercial Vehicles and 2,60,000 tractors annually. In the world level, India is second in the production of two-wheelers and fifth in commercial vehicles.

3. SELECTION OF SAMPLE

The study concentrates on the Indian commercial vehicle manufacturing industry. Commercial vehicles include Light Commercial vehicles (LCV), Medium commercial vehicle Industry (MCV) and Heavy commercial vehicles (HCV). There are seven players in

the industry and only five companies were selected. They are Ashok Leyland Ltd. (ALL), Tata Motors Ltd.(TML), Force Motors Ltd (FML), Eicher Motors Ltd.(EML), and Swaraj Mazda Ltd (SML). The acronyms mentioned in parentheses are used in the construction of tables and the analysis.

4. OBJECTIVES OF WORKING FINANCE

The present study has the following objectives.

- To study the Size and Growth of Working Finance in the Indian Commercial Vehicle Manufacturing Industry.
- To examine the efficiency and effectiveness in the management of working finance in the concerns.

5. HYPOTHESES OF THE STUDY

The study proposes to test the following hypotheses.

- The differences between actual values and trend values of working finance of Ashok Leyland Ltd are not significant.
- The differences between actual values and trend values of working finance of Tata Motors Ltd are not significant.
- The differences between actual values and trend values of working finance of Force Motors Ltd are not significant.
- The differences between actual values and trend values of working finance of Eicher Motors Ltd are not significant.
- The differences between actual values and trend values of working finance of Swaraj Mazda Ltd are not significant.

6. PERIOD OF THE STUDY

The period of the study is only ten years from 2000-2001 to 2009-10.

7. METHODOLOGY

The study is analytical in nature. The study is based only on the data collected from secondary sources. The required data for the commercial vehicle manufacturing companies were collected from the compilation made by the Centre for Monitoring Indian Economy (CMIE) for the period 1998-99 to 2007-08. Prowess database of CMIE is most reliable and empowered corporate database. It contains a highly normalized database built on a sound understanding of disclosures on were over 7000 companies in India. Some of the data were collected from journals, websites, and books. Editing, classification, and tabulation of the financial data, collected from the secondary sources, forms the statistical base of the study.

7.1 Statistical tools employed

For assessing the size and growth of working finance, mean, the coefficient of variation was used and a compound annual growth rate was used to evaluate the efficiency and effective management of working finance. Time series analysis was used to find out the expected values and Chi-square analysis was used to measure the relationship between the actual and expected values.

7.2 Limitation of the study

The data used in this study have been taken only from secondary sources and as such its findings depend entirely on the accuracy of such data.

8. FINDINGS OF THE STUDY

8.1 Size and growth rate of working finance of Indian commercial vehicle manufacturing companies

Ashok Leyland Ltd.

Ashok Leyland Ltd.'s working finance is range between the highest Rs.1049.06cores in the year 2000-01 and the lowest Rs.603.32 crores in the year 2007-08. Working finance was on a declining trend, except in the years 2004-05 and 2006-07. The average size of working finance was Rs.882.60crores and the coefficient of variation was 28661.91. The compound annual growth rate was 169.29% (Table 1).

Tata Motors Ltd.

Table 1 shows that in some of the years the Size of working finance in TML Ltd was negative - Rs. 509.16 crores in the years 2002-03, Rs.963.07 crores in the years 2003-04 and Rs.272.85 crores in the year 2007-08. The working finance was on a declining trend and started increasing in the years 2004-05 to 2006-07 and again decreased in the year 2007-08.

The average size of working finance was Rs.646.97crores and the coefficient of variation 15773.85. The compound annual growth rate was 1255.94%

Force Motors Ltd.

In Force Motors Ltd. the size of working finance was on a fluctuating trend. In the year 2000-2001 the working finance was Rs.96.36 crores, it was on the rise up to 2000-01. Then it came down to Rs.80.19 crores in the year 2001-02. Again it started increasing in the year 2003-04 and 2004-05 and then decreased to Rs.50.27crores in the year 2006-07. It started rising in 2007-08.

The average size of working finance was Rs.95.21crores and the coefficient of variation was 552.232. The compound annual growth rate was 23.49% (Table 1).

Eicher Motors Ltd.

As per Table 1, the size of working finance in Eicher Motors Ltd. was on a fluctuating trend during the study period. In the first 5 years, it registered a declining trend. In the second 5 years, it was increasing in the years 2003-04, 05-06 and 07-08.

The average size of working finance was Rs.67.88crores and the coefficient of variation, 1066.06. The compound annual growth rate was 32.65%

Swaraj Mazda Ltd.

The size of working finance in Swaraj Mazda Ltd. is varied between the lowest- Rs.15.77crores in 2002-03 and highest-Rs157.43 crores in 2005-06. There has been a fluctuating trend in working finance. The average size of working finance was Rs.48.66crores and coefficient of variation 2910.59. The compound annual growth rate was 53.94%.

The average (mean value) size of working finance varied more considerably in Tata Motors Ltd. than in other companies. The compound annual growth rate (CAGR) of Tata Motors Ltd. (1255.94) was much higher than in other companies. This indicates the operating efficiency of Tata Motors Ltd.

Table. 1: Size and growth rate of working finance of Indian commercial vehicle manufacturing industry

Years	Size of Working Finance (Rs. in Crores)					The growth rate of Working Finance				
	Ashok Leyland Ltd.	Tata Motors Ltd.	Force Motors Ltd.	Eicher Motors Ltd.	Swaraj Mazda Ltd.	Ashok Leyland Ltd.	Tata Motors Ltd.	Force Motors Ltd.	Eicher Motors Ltd.	Swaraj Mazda Ltd.
2000-01	1049.06	1396.44	96.36	32.6	31.88	100.00	100.00	100.00	100.00	100.00
2001-02	1032.95	786.31	102.77	28.89	30.02	98.46	56.31	56.31	56.31	56.31
2002-03	1022.29	150	108.26	23.18	33.45	97.45	10.74	10.74	10.74	10.74
2003-04	982.01	6.76	80.19	11.4	43.31	93.61	0.48	0.48	0.48	0.48
2004-05	748.09	-509.16	104.98	6.75	15.77	71.31	-36.46	-36.46	-36.46	-36.46
2005-06	630.97	-963.07	118.82	73.37	31.72	60.15	-68.97	-68.97	-68.97	-68.97
2006-07	991.6	545.36	108.85	49.13	61.12	94.52	39.05	39.05	39.05	39.05
2007-08	823.89	2545.95	119.28	92.8	157.43	78.54	182.32	182.32	182.32	182.32
2008-09	941.86	2784.05	50.27	78.8	139.35	89.78	199.37	199.37	199.37	199.37
2009-10	603.32	-272.85	62.38	89.7	134.82	57.51	-19.54	-19.54	-19.54	-19.54
Mean	882.60	646.97	95.21	48.66	67.88					
C.V.	28661.91	1577385	552.232	1066.06	2910.59					
CAGR						169.29	1255.94	23.49	32.65	53.94
Source: Computed										

8.2 Trend values of working finance

Ashok Leyland Ltd.

Table 2 depicts the actual and estimated values of working finance in Ashok Leyland Ltd., calculated by using the regression equation and the details of Chi-square values during the study period. The linear least squares regression equation of Y on X is Y_c= 882.604-34.725X. The trend values have decreased during the whole study period. The difference between actual values and trend values of working finance was not significant in any year, but the differences were positive in the years 1998-99, 1999-2000, 2000-01, 2001-02, 2004-05, 2005-06 and 2006-07 while in the remaining years the differences were negative. This was due to a steep decrease in the current assets, especially in the sundry debtors. At the same time, the current liabilities of Ashok Leyland Ltd. were decreasing.

Table 2: Trend and Chi-square Analysis of Ashok Leyland Ltd's Working Finance

Years	Actual value(O) Rs. in crores	Trend Value (E) Rs. in crores	(O-E)2/E
2000-01	1049.06	1038.87	0.10
2001-02	1032.95	1004.14	0.83
2002-03	1022.29	969.42	2.88
2003-04	982.01	934.69	2.40
2004-05	748.09	899.97	25.63
2005-06	630.97	865.24	63.43
2006-07	991.60	830.52	31.24
2007-08	823.89	795.79	0.99
2008-09	941.86	761.07	42.95
2009-10	603.32	726.34	20.84
Chi-square value			191.29
The calculated value of chi-square at 5% level of significant level with 9(n-1), Degrees of freedom			

Source: computed

To test the significance of the difference between the actual values and trend values of working finance, a Chi-square test was applied. The calculated value 191.29 is more than the table value (16.919) at 5% level of significance. So the null hypothesis is rejected. The difference between the actual values and trend values of working finance in Ashok Leyland Ltd. is significant.

Tata Motors Ltd.

Table 3 highlights the actual and estimated values of working finance in Tata Motors Ltd., calculated by using the regression equation and the details of Chi-square values during the study period. The linear least squares regression equation of Y on X is Y_c= 646.979+73.346X. The trend values were on an increasing trend during the whole study period. The difference between actual values and trend values were not significant in any year, but the differences were positive in the years 1998-99, 1999-2000, 2005-06 and 2006-07 while in the remaining years the differences were negative. This was due to a steep increase in the current assets, especially in the loans and advances.

Table 3: Trend and Chi-square Values of Tata Motors Ltd's Working Finance

Years	Actual value(O) (Rs. in Crores)	Trend Value(E) (Rs. in Crores)	(O-E)2/E
2000-01	1396.44	316.92	3677.177
2001-02	786.31	390.27	401.9092
2002-03	150.00	463.61	212.1441
2003-04	6.76	536.96	523.524
2004-05	-509.16	610.31	2053.403
2005-06	-963.07	683.65	3966.482
2006-07	545.36	757.00	59.1693
2007-08	2545.95	830.35	3544.665
2008-09	2784.05	903.69	3912.552
2009-10	-272.85	977.04	1598.936
Chi-square value			19949.96
The calculated value of chi-square at 5% level of significant level with 9(n-1), Degrees of freedom			

Source: Computed

To test the significance of the difference between the actual values and trend values of working finance, a Chi-square test was applied. Since the calculated value 19949.96 is more than the table value of 16.919 at 5% level of significance, the null hypothesis is rejected. Hence there is a significant difference between the actual values and trend values of working finance in Tata Motors Ltd.

Force Motors Ltd.

Table 4 describes the actual and estimated values of working finance in Force Motors Ltd., calculated by using the regression equation and the details of Chi-square values during the study period. The linear least squares regression equation of Y on X is Y_c= 95.216-3.1418X. The trend values of working finance were decreased during the whole of the study period from 109.35crores to 81.08crores. The difference between actual values and trend values of working finance were not significant in any year, but the differences were positive in the years 2000-01, 2002-03, 2003-04, 2004-05 and 2005-06 while in the remaining years the differences were negative. It was happened due to a steep increase in the current liabilities.

Table 4: Trend Values and Chi-square Values of Force Motors Ltd's Working Finance

Years	Actual value(O) (Rs. in Crores)	Trend Value(E) (Rs. in Crores)	(O-E)2/E
2000-01	96.36	109.35	1.54
2001-02	102.77	106.21	0.11
2002-03	108.26	103.07	0.26
2003-04	80.19	99.93	3.90
2004-05	104.98	96.79	0.69
2005-06	118.82	93.65	6.77
2006-07	108.85	90.50	3.72
2007-08	119.28	87.36	11.66
2008-09	50.27	84.22	13.69
2009-10	62.38	81.08	4.31
Chi-square value			46.66
The calculated value of chi-square at 5% level of significant level with 9(n-1), Degrees of freedom			

Source: Computed

To test the significance of the difference between the actual values and trend values of working finance, of the company Chi-square test applied. Since the calculated value of the Chi-square test (46.66) is more than the table value (16.919) at 5% level of significance. The null hypothesis is rejected. So there is the difference between the actual values and trend values of working finance of Force Motors Ltd. are significant.

Eicher Motors Ltd.

Table 5 reveals the actual and estimated values of working finance in Eicher Motors Ltd., calculated by using the regression equation and the details of Chi-square values during the study period. The linear least squares regression equation of Y on X is Y_c= 48.662+8.43X. The trend values of working finance were increased during the whole of the study period from 10.72crores to 86.60crores. The difference between actual values and trend values of working finance is significant in the year 2006-07, some of the years the difference between actual values and trend values of working finance is not significant but the differences were positive in the years 1998-99, 1999-2000, 2003-04, 2005-06, 2006-07 and 2007-08 while in the remaining years the differences were negative. It was happened due to a steep increase in the current assets, especially in the inventories.

Table 5: Trend and Chi-square values of Eicher Motors Ltd's Working Finance

Years	Actual value(O) (Rs. in Crores)	Trend Value(E) (Rs. in Crores)	(O-E)2/E
2000-01	32.60	10.72	44.65
2001-02	28.89	19.15	4.95
2002-03	23.18	27.58	0.70

2003-04	11.40	36.01	16.82
2004-05	6.75	44.45	31.97
2005-06	73.37	52.88	7.94
2006-07	49.13	61.31	2.42
2007-08	92.80	69.74	7.62
2008-09	78.80	78.17	0.01
2009-10	89.70	86.60	0.11
Chi-square value			117.20
The calculated value of chi-square at 5% level of significant level with 9(n-1), Degrees of freedom			

Source: Computed

To test the significance of the difference between the actual values and trend values a Chi-square test applied. Since the calculated value of the Chi-square test (117.20) is more than the table value (16.919) at 5% level of significance. The null hypothesis is rejected. Thus there is the difference between the actual values and trend values of working finance of Eicher Motors Ltd. are significant.

Swaraj Mazda Ltd.

Table 6 shows the actual and estimated values of working finance in Swaraj Mazda Ltd., calculated by using the regression equation and the details of Chi-square values during the study period. The linear least squares regression equation of Y on X isY_c= 67.887+14.4306X. The trend values were rising during the whole period of the study. The difference between actual values and trend values of working finance were not significant in any year, but the differences were positive in the years 1998-99, 1999-2000, 2000-01, 2005-06, 2006-07 and 2007-08 and in the remaining years, the differences were negative. This was happened due to a steep increase in the current assets especially in sundry debtors and loans and advances.

Table 6: Trend and Chi-square Values of Swaraj Mazda Ltd's Working Finance

Years	Actual value(O) (Rs. in Crores)	Trend Value(E) (Rs. in Crores)	(O-E)2/E
2000-01	31.88	2.95	283.79
2001-02	30.02	17.38	9.19
2002-03	33.45	31.81	0.08
2003-04	43.31	46.24	0.19
2004-05	15.77	60.67	33.23
2005-06	31.72	75.10	25.06
2006-07	61.12	89.53	9.02
2007-08	157.43	103.96	27.50
2008-09	139.35	118.39	3.71
2009-10	134.82	132.82	0.03
Chi-square value			391.80
The calculated value of chi-square at 5% level of significant level with 9(n-1), Degrees of freedom			

Source: Computed

To test the significance of the difference between the actual values and trend values a Chi-square test applied. Since the calculated value 391.80 is more than the table value 16.919 at 5% level of significance the null hypothesis is rejected. Hence there is a significant difference between the actual values and trend values of working finance in Swaraj Mazda Ltd.

The chi-square analysis shows that in all the companies the actual value of working finance varied, but the calculated values are more than the table values at 5% level of significance, the null hypothesis is rejected for all the companies (Table 7). Thus, there is a significant difference between actual values and trend values of working finance of sample companies. It is inferred that the companies can fine-tune the management of working finance. Nowadays firms follow new strategies (like negative working capital management) in managing their working finance. This is different from the conservative approach, aggressive approach and matching approach. That is why in some of the year's actual values are less than the trend values. This is due to the reduced size of current assets, an increase in the value of current liabilities.

Table 7: Chi-Square Test Results of Indian commercial Vehicle Industry's Working Finance

Name of the company	Calculated value	Table value	Result
Ashok Leyland Ltd.	191.29	16.919	Null Hypothesis rejected
Tata Motors Ltd.	19949.96	16.919	Null Hypothesis rejected
Force Motors Ltd.	46.66	16.919	Null Hypothesis rejected
Eicher Motors Ltd.	117.2	16.919	Null Hypothesis rejected
Swaraj Mazda Ltd.	391.80	16.919	Null Hypothesis rejected
The calculated value of chi-square at 5% level of the significant level with 9(n-1), Degrees of freedom			

Source: Computed

Ashok Leyland Ltd., Tata Motors Ltd., and Force Motors Ltd. are managing their size of working finance by changing the size of inventory level and debtors. In the competitive market, credit sales are the most appropriate tool to enhance sales. One can reduce the size of the debtors, it will be reflected in sales, but one can reduce the size of inventory by adopting Just in time manufacturing

(JIT), minimum stock maintenance, zero wastage etc. Ashok Leyland Ltd, Tata Motors Ltd., and Force Motors Ltd. vary their level of inventory and debtors according to the market trend. Eicher Motors Ltd. goes in for loans and advances from customers. So it can generate funds even before sales.

Swaraj Mazda Ltd. is also having one-third of its current assets in loans and advances. Thus, the mobilization of funds is very easy for the company. Based upon the demand, it is also changing its inventory level.

9. CONCLUSION

The growth rate of Tata Motors Ltd. is higher than that of Ashok Leyland Ltd, Force Motors Ltd., Eicher Motors Ltd., and Swaraj Mazda Ltd. Next, to the Tata Motors Ltd., the growth rate of Ashok Leyland Ltd. is 169.29. While in the growing stage the company's fund- requirements are higher. Nowadays leading companies are able to generate cash within short periods of time. So they maintain their working finance at zero or negative level. That is why the actual values of working finance are not matching with the trend values in all the companies. Therefore, it could be inferred that all the five companies are effectively managing the Net current assets (working finance). Besides this, for the last two decades, India is facing inflation. Changes in the price level will lead to a hike in the price of components. So, the companies have to find huge amounts as working finance due to the impact of the new business environment.

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