An Analysis of Working Capital Management of Auto Component Industry

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Abstract – The Indian auto-components industry has experienced healthy growth over the last few years. Some of the factors attributable to this include: a buoyant end-user market, improved consumer sentiment and return of adequate liquidity in the financial system. The revival of the auto industry was initially driven by the fiscal stimulus programme of the government. The data relating to management of working capital of Auto Components industry and its selected units has been collected from the published annual reports of the companies for the year 2014-15to 2017-18.

Keywords – Current Ratio, Quick Ratio, Absolute Liquid Ratio Inventory Turnover Ratio etc.

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INTRODUCTION

The auto-components industry accounts for almost seven per cent of India's Gross Domestic Product (GDP) and employs as many as 19 million people, both directly and indirectly. A stable government framework, increased purchasing power, large domestic market, and ever-increasing development in infrastructure have made India a favorable destination for investment.

The Indian auto-components industry can be broadly classified into the organized and unorganized sectors. The organized sector caters to the Original Equipment Manufacturers (OEMs) and consists of high-value precision instruments while the unorganized sector comprises low-valued products and caters mostly to the aftermarket category.

Revenues of the Indian auto-components industry grew by 11 per cent over the past year to Rs 2.34 lakh crore (US$ 34.7 billion) in FY 14-15. This growth was primarily driven by healthy recovery for major Original Equipment Manufacturers (OEMs) in the medium and heavy commercial vehicles (M&HCV) and Passenger Vehicle (PV) segment.

According to the Automotive Component Manufacturers Association of India (ACMA), the Indian auto-components industry is expected to register a turnover of US$ 66 billion by FY 15–16 with the likelihood to touch US$ 115 billion by FY 20–21. In addition, industry exports are projected to reach US$ 12 billion by FY 15–16 and add up to US$ 30 billion by FY20–21.

INVESTMENTS

The cumulative Foreign Direct Investment (FDI) inflows into the Indian automobile industry during the period April 2000 – June 2015 were recorded at US$ 13.5 billion, as per data by the Department of Industrial Policy and Promotion (DIPP).

Some of the major investments made into the Indian auto components sector are as follows:

- Arcelor Mittal signed a joint venture agreement with Steel Authority of India Ltd (SAIL) to establish an automotive steel manufacturing facility in India.

- French tyre manufacturer Michelin announced plans to produce 16,000 tonnes of truck and bus tyres from its Indian facility this year, a 45 per cent rise from last year.

- Amtek Auto Ltd acquired Germany-based Scholz Edelstahl GmbH through its 100 per cent Singapore-based subsidiary Amtek Precision Engineering Pte Ltd.

- MRF Ltd plans to invest Rs 4,500 crore (US$ 679.5 million) in its two factories in Tamil Nadu as part of its expansion plan.

- German luxury car maker Bayerische Motoren Werke AG's (BMW 's) announced it will start sourcing parts from at least seven India-based auto parts makers in response to promote 'Make in India'.

- Hero MotoCorp is investing Rs 5,000 crore (US$ 754.9 million) in five manufacturing facilities across India, Colombia and Bangladesh, to increase its annual production capacity to 12 million units by 2020.

- Suzuki Motor Corp. is establishing a factory in Gujarat to export automobiles from India. The company aims to introduce 10 new models in India. Government Initiatives

The Government of India's Automotive Mission Plan (AMP) 2006–2016 has come a long way in ensuring growth for the sector. It is expected that this sector's contribution to the GDP will reach US$ 145 billion in 2016 due to the government's special focus on exports of small cars, multi-utility vehicles (MUVs), two and three-wheelers and auto components. Separately, the deregulation of FDI in this sector has also helped foreign companies to make large investments in India.

The Indian auto-components industry is set to become the third largest in the world by 2025. Indian auto-component makers are well positioned to benefit from the globalization of the sector as exports potential could be increased by up to four times to US$ 40 billion by 2020.

1.2 Profile of Selected Companies

SPARK MINDA

For over **five decades**, **SPARK MINDA, Ashok Minda Group (erstwhile MINDA Group)** has been a major presence in **India's automobile industry**. These fifty years have been interspersed by a number of technological innovations that have gone on to become industry standards. Today the Group has emerged as one of the leading manufacturer of automotive components with a turnover of **INR 3200 Cr. / USD 533 Mn for 2014 - 15** and employs more than **14,000 people** in India and Overseas.

For the technological edge, the company has a dedicated R&D facility and collaborations with the pioneers and leaders of the Automobile Industry. For assimilating the latest technologies, Spark Minda has entered into strategic alliances and technical collaborations with leading international companies and acquired businesses across Europe. This has provided Spark Minda with the cutting edge in product design and technology to meet strict international quality standards.

Jamna Auto Industries Limited

Jamna Auto Industries Limited is India's largest, and amongst world's third largest, manufacturer of tapered leaf springs and parabolic springs for automobiles. The Company was first to introduce parabolic springs in India.

The Company's vision is to become a global leader in Automobile Suspension Solutions. The Company has diversified its range by adding Lift Axle and Air Suspension products under technical collaboration with Ridewell Corporation, USA.

Rico

Rico is a world-class engineering company supplying a wide range of high precision fully machined aluminum and ferrous components and assemblies to automotive OEMs across the globe.

- Rico's consolidated group total turnover is over US$ 245 Million

- Rico's integrated services include design, development, tooling, casting, machining and assembly across ferrous and aluminum products.

- Packaging & Logistics

Setco Automotive

Setco Automotive, the largest clutch supplier to the medium and heavy commercial vehicle (MHCV) segment, is not only eyeing a foray into the light commercial vehicles (LCV) and farm equipment space within the next six months, but also exploring options to set up an assembly plant in Russia.

- The company already operates two assembly units overseas, one in Manchester, UK and another in Nashville, Tennessee, US. "We operate in a hub-and-spoke mode. Our main plant is in Kalol, Gujarat, which supplies to assembly plants in the UK, the US and also in Uttarakhand. We are exploring opportunities to set up an assembly plant in Russia as well, and are working with OEMs (original equipment manufacturers) on that front," said Udit Seth, executive director of Setco Automotive adding that it would take some time before things can materialise. He did not wish to comment on the potential investment in such a project. The company is also in the final stages to appoint parts distributors in North America. Seth said he would be visiting the US soon to finalise the deal.

- Setco accounts for nearly 100 per cent requirement of major players like Tata Motors, Volvo Eicher, AMW, and about 60-65 per cent of Ashok Leyland's requirement. As Seth says, nine of the ten clutches that go into MHCV segment are manufactured by it.

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JMT Auto Limited

JMT Auto Limited is one of the largest Auto component manufacturers in the Eastern region and has significant expertise in the auto sector with proven capabilities in Heat treatment & gear manufacturing besides a variety of components for Oil and Gas industry. Established in 1987, the company has the competitive edge based on latest CNC Technology, our core competence being high precision Gears and Shafts. We have Eight state- of- the- art facilities in India which include fully automated machining lines, design & engineering capability.

JMT manufactures over 2000 different components which range from Engine components, Gears, Shafts, Pins, Bushes, Idler Bearings, Carrier Housing, Gear Rings, Axles, Synchro Cones, Carriers, Gear Box Assemblies, Seal wear rings, Oil Pump Cover ,Drums Sleeves, Carrier Assemblies, Pipe Assemblies, Flywheel Assemblies, Sear Wear ring, Cone And Cup(Heat Treatment),Bushes, Oil Pump Gear, Seat Valve, Lever Rocker Assembly, Steering Spindle, Assemblies, Engine Gears, Spindles, Drums for light, Medium & Heavy Commercial Vehicles, Tractors and Diesel Engines.

WORKING CAPITAL MANAGEMENT

The management of current assets, current liabilities and inter-relationship between them is termed as working capital management. "Working capital management is concerned with problems that arise in attempting to manage the current assets, the current liabilities and the inter-relationship that exist between them." In practice, "There is usually a distinction made between the investment decisions concerning current assets and the financing of working capital.

From the above, the following two aspects of working capital management emerges:

(1)   To determine the magnitude of current assets or "level of working capital" and

(2)   To determine the mode of financing or "hedging decisions."

REVIEW OF LITERATURE

The purpose of this chapter is to present a review of literature relating to the working capital management. Although working capital is an important ingredient in the smooth working of business entities, it has not attracted much attention of scholars. Whatever

Special studies have been undertaken, mostly economists, to study the dynamics of inventory investment which often represented largest component of total working capital.

Sagan in his paper (1955), study on the theory of working capital management, emphasized the need for management of working capital accounts and warned that it could vitally affect the health of the company. He realized the need to build up a theory of working capital management. He discussed mainly the role and functions of money manager inefficient working capital management. Sagan pointed out the money manager's operations were primarily in the area of cash flows generated in the course of business transactions. However, money manager must be familiar with what is being done with the control of inventories, receivables and payables because all these accounts affect cash position. Thus

Vanhorne in his study (1969) recognizing working capital management as an area largely lacking in theoretical perspective, attempted to develop a framework in terms of probabilistic cash budget for evaluating decisions concerning the level of liquid assets and the maturity composition of debt involving risk-return trade-off. He proposed calculation of different forecasted liquid asset requirements along with their subjective probabilities under different possible assumptions of sales, receivables, payables and other related receipts and disbursements. He suggested preparing a schedule showing, under each alternative of debt maturity, probability distributions of liquid asset balances for future periods, opportunity cost, maximum probability of running out of cash and number of future periods in which there was a chance of cash stock-out. Once

Welter, in his study (1970) stated that working capital originated because of the global delay between the moment expenditure for purchase of raw material was made and the moment when payment were received for the sale of finishedproduct. Delay centres are located throughout the production and marketing functions. The study requires specifying the delay centres and working capital tied up in each delay centre with the help of information regarding average delay and added value.

Warren and Shelton (1971) applied financial simulation to simulate future financial statements of a firm, based on a set of simultaneous equations. Financial simulation approach makes it possible to incorporate both the uncertainty of the future and the many interrelationships between current assets, current liabilities and other balance sheet accounts. Warren and Shelton presented a model in which twenty simultaneous equations were used to forecast future balance sheet of the firm including forecasted current assets and forecasted current liabilities. Current assets and current liabilities were forecasted in aggregate by directly relating to firm sales.

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Misra (1975) studied the problems of working capital with special reference to six selected public sector undertakings in India over the period 1960-61 to 1967-68. Analysis of financial ratios and responses to a questionnaire revealed somewhat the same results as those of NCAER study with respect to composition and utilization of working capital. In all the selected enterprises, inventory constituted the more important element of working capital. The study further revealed the overstocking of inventory in regard to its each component, very low receivables turnover and more cash than warranted by operational requirements and thus total mismanagement of working capital in public sector undertakings.

Agarwal (1983) also studied working capital management on the basis of sample of 34 large manufacturing and trading public limited companies in ten industries in private sector for the period 1966-67 to 1976-77. Applying the same techniques of ratio analysis, responses to questionnaire and interview, the study concluded the although the working capital per rupee of sales showed a declining trend over the years but still there appeared a sufficient scope for reduction in investment in almost all the segments of working capital.

Kamta Prasad Singh, Anil Kumar Sinha and Subas Chandra Singh (1986) examined various aspects of working capital management in fertilizer industry in India during the period 1978-79 to 1982-93. Sample included public sector unit, Fertilizer Corporation of India Ltd. (FCI) and its daughter units namely Hindustan Fertilizers Corporation Ltd., the National Fertilizer Ltd., Rashtriya Chemicals and Fertilizers Ltd. and Fertilizer (Projects and Development) India Ltd. and comparing their working capital management results with Gujarat State Fertilizer Company Limited in joint sector.

R.N. Agarwal (1982) estimated total inventory investment equation for individual firms in automobile manufacturing industry, which was divided into two sectors— car-sector and non-car-sector. His study was based on the data for 1959-60 through 1978-79. Official Directory of Mumbai Stock Exchange had been the basic source of data. Analysis of two sector revealed that sales and stocksales ratio were important explanatory variables. Cost of capital and trend were important in only car sector while fixed investment and flows of external funds were significant in non-car sector.

N.C. Gupta study (1987) examined the determinants of total inventory investment in aluminum and non-ferrous semi firms in private sector. The data had been taken from Stock Exchange, Official Directory, Mumbai for 9 years 1966-67 to 1974-75. variables considered were current sales change, onelagged sales change, inventory stock at the beginning, gross fixed investment during the year, flow of net debt (external finance) and profits net of dividends and taxes but gross of depreciation provision (retained earnings or internal finance).

RESEARCH METHODOLOGY

There were many Auto components companies in India. The annual reports of these companies have been collected from financial statement data of companies given in Annual reports. The analysis, findings, conclusions and suggestions have been presented in the form of this study.

In the preparation of report of conventional methodology is used, which is as follows: -

OBJECTIVES OF STUDY

The present study has been undertaken to achieve the following objectives with regard to management of working capital in Cement Industry of India:

- To analyze and evaluate working capital management of selected units.

- To evaluate the inventory, receivable and cash management performance.

- To suggest on the basis of conclusions, innovation in the management of working capital in Auto component Industry in India.

- To analyze the impact of Auto component industry on the national economy.

3.3   Hypotheses of the study

The study has been pursued to test the following hypotheses with reference to Auto components Industry in India:

- That proper management of working capital improves both 'Liquidity and Profitability' position of a business firm.

- That the scope for improvement in the management of working capital is greater in inventory as well as receivables management than in cash management.

We often start with as assertion or a hypothesis and use our research data to prove or to disprove it. Every hypothesis put to test with no statistical procedure and unless such tests are carried out a research is not complete.

METHODS OF STUDY

In the present study, top five Auto components companies have been selected out of more than 50 Auto components companies in India.

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These companies are:

(i)   SparkMinda

(ii)   JMT Auto Limited

(iii)   Jamna Auto Industries Limited

(iv)   Rico

(v)   Setco Automotive

The data relating to management of working capital of Auto Components industry and its selected units has been collected from the published annual reports of the companies for the year 2014-15to 2017-18.

SCOPE OF STUDY

•   Only Auto Components Industry.

•   Only five Auto components companies are studied.

•   Only Ratio analysis technique is used.

Instrument Used

Management, Records and Computer

ANALYSIS AND INTERPRETATION

To measure the short term liquidity of a firm the following ratios can be calculated

a)   CURRENT RATIO:

Current ratio may be defined as the relationship between current assets and current liabilities. This ratio also known as Working capital ratio is a measure of general liquidity and is most widely used to make the analysis of a short-term financial position (or) liquidity of a firm.

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}$$

Table 4.1

Current Ratio of Selected Auto Components Companies

YEAR	Minda	Jamna	Rico	Setco	Jmt
2014-15	1.11	0.77	0.73	1.01	0.92
2015-16	1.06	0.75	0.56	0.95	1.007
2016-17	0.99	0.86	0.48	0.91	0.78
2017-18	1.13	0.78	1.15	1.10	1.27
Company Average	1.07	0.79	0.73	0.99	0.99

Interpretation:

The current ratio of all the Auto Component companies shows fluctuating trend throughout the study period. The minimum Current Ratio in Minda is 0.99 (2016-2017), Jamna is 0.75 (2015-16),Rico is 0.48 (2016-17) , Setco is 0.91(2016-2017) and in Jmt is 0.78(2016-17). The maximum Current Ratio in Minda is 1.13 (2017-18), Jamna is 0.86 (2016-17), Rico is 1.15 (2017-18), and Setco is 1.10 (2017-18and in Jmt is 1.27(2017-18) .

(b)   QUICK RATIO:

Quick ratio is a test of liquidity than the current ratio. The term liquidity refers to the ability of a firm to pay its short-term obligations as & when they become due. Quick ratio may be defined as the relationship between quick or liquid assets and current liabilities. An asset is said to be liquid if it is converted into cash within a short period without loss of value.

$$\text{Quick ratio} = \frac{\text{Quick Assets}}{\text{Current liabilities}}$$

Table 4.2.

Quick Ratio of Selected Auto Components Companies

YEAR	Minda	Jamna	Rico	Setco	Jmt
2014-15	0.88	0.44	0.52	0.73	0.34
2015-16	0.86	0.40	0.41	0.62	0.27
2016-17	0.77	0.42	0.37	0.58	0.40
2017-18	0.85	0.47	0.98	0.72	0.55
Company Average	0.84	0.43	0.57	0.66	0.39

Interpretation:

The Quick ratio of all the Auto Component companies shows fluctuating trend throughout the study period. The minimum Quick Ratio in Minda is 0.77 , Jamna is 0.40 (2015-16), Rico is 0.37 (2016-17) , Setco is 0.58 and in Jmt is 0.27(2015-16). The maximum Quick Ratio in Minda is 0.88 (2014-15), Jamna is 0.47, Rico is 0.98, and Setco is 0.73 (2014-15) and in jmt is 0.55(2017-18) .

(c)   ABSOLUTE LIQUID RATIO:

Although receivable, debtors and bills receivable are generally more liquid than inventories, yet there may be doubts regarding their realization into cash immediately or in time. Hence, absolute liquid ratio should also be calculated together with current ratio and quick ratio so as to exclude even receivables from the current assets and find out the absolute liquid assets. Absolute liquid assets include cash in hand etc.

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$$\text{Absolute liquid ratio} = \frac{\text{Absolute liquid Assets}}{\text{Current liabilities}}$$

Table 4.3.

Absolute Liquid Ratio of Selected Auto components Companies

YEAR	Minda	Jamna	Rico	Setco	Jmt
2014-15	0.15	0.03	0.005	0.04	0.029
2015-16	0.11	0.03	0.01	0.09	0.01
2016-17	0.04	0.04	0.001	0.02	0.07
2017-18	0.06	0.02	0.002	0.03	0.006
Company Average	0.09	0.03	0.004	0.04	0.028

Interpretation:

The Absolute Liquid ratio of all the Auto Component companies shows fluctuating trend throughout the study period. The minimum Absolute Liquid Ratio in Minda is 0.04, Jamna is 0.02, Rico is 0.001 (2016-17) , Setco is 0.02 and in Jmt is 0.006 . The maximum Absolute Liquid Ratio in Minda is 0.15 (2014-15), Jamna is 0.04(2016-17), Rico is 0.01 (2015-16), and Setco is 0.09 (2015-16) and in jmt is 0.07(2016-17).

d)   INVENTORY TURNOVER RATIO:

This ratio indicates the relationship between the cost of goods sold during the year and average stock kept during the year.

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$$

Table 4.4

Inventory turnover ratio of Selected Auto Components Companies

YEAR	Minda	Jamna	Rico	Setco	Jmt
2014-15	10.6	6.26	6.92	4.59	1.54
2015-16	12.37	5.18	8.15	3.36	1.36
2016-17	10.20	6.46	8.70	3.03	1.22
2017-18	10.30	8.33	9.56	3.73	2.04

Table 4.5

Average age of inventory of Selected Auto components Companies

YEAR	Minda	Jamna	Rico	Setco	Jmt
2014-15	35 days	59days	53days	79Days	237Days
2015-16	30 days	70days	45days	109Days	268Days
2016-17	36 days	57 days	42days	121Days	299Days
2017-18	36 days	44 days	39days	98Days	178Days

Interpretation:

The Inventory Turnover Ratio of all the Auto Component Industry shows fluctuating trend throughout the study period. The minimum Average age of inventory in Minda is 30 days, Jamna is 44 days, Rico is 39 days, Setco is 79 days (2014-15) and in Jmt is 178 days (2017-18). The maximum Average age of inventory in Minda is 36 days, Jamna is 70 days (2015-16), Rico is 53 days (2014-15), and Setco is 121 days (2016-17) and in jmt is 299 days (2016-17).

FINDINGS

•   The business needs to maintain some cash to pay its current liabilities in time.

•   Similarly, to maintain supply of goods to meet the demand in the market, the stock of finished goods has to be kept.

•   Working capital is needed for the purchase of raw material and for the payment of various day to day expenses.

•   The profit depends largely on sales but sales do not result in cash immediately. To increase the sales goods are to be sold on credit, the collection of which takes place after time terms. Thus, there exist a gap between the sales of goods and realization of cash.

•   For the efficient operation of the business, working capital is required along with the fixed capital.

•   Present study of Auto component Industry depicts that the Industry is delivering strong operating and financial performance. The Industry is slowly move towards large profit so we hope near future company earn more profit.

SUGGESTIONS

1.   Each Company must increase cash generate sources for fight with regular liquidity challenges.

2.   The most important thing is that they have to maintain balance in internal & external source of capital. Company must improve external source of capital for extension in profit of shareholders.

3.   A lot of Operating Expenses reduce profit of company. So attention must be taken to reduce such Operating expenses to earn more profit and establish powerful image in Indian market.

4.   Overall study recommends that each company properly utilize their internal sources and must reduce operating expenses.

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