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A Study on Estimation of Working Capital Management with Special Reference to Jayem Automotives Industry

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***Abstract*: The purpose of this study is to find out the estimation of working capital management on company profitability. The study aims at examining the working capital significance between company's working capital management and profitability. In light of this objective the study acquires quantitative approaches to test a series of research hypotheses. Data is analyzed on quantitative basis using working capital management and estimation of working capital management. The key findings from the study there exists a positive relationship between cash conversion cycle and profitability of the firm. It means that as cash conversion cycle increases in profitability of the firm.**

***Keywords*: Working capital, working capital ratio, gross profit ratio, net profit ratio.**

1. Introduction

Working capital management is a business strategy designed to ensure that a company operates logical monitoring and using its current assets and current liabilities to their most effective use. The estimation of working capital management can be quantified using ratio analysis. Working capital management needs to monitoring a company's current assets and current liabilities to maintain cash flow to combine its short-term operating costs and short-term debt burdens. Working capital management involves the various ratios analysis, including the working capital ratio, net profit ratio, and inventory ratio. Working capital management can improve a company's cash flow management and earnings by using its resources efficiently. Working capital management is maintain the operation of net operating cycle and minimum amount of time required to convert net current assets and current liabilities into cash. Working capital management can improve the company's cash flow management and earnings quality along the efficient use of its resources. Management of working capital includes inventory management and management of accounts receivable and accounts payable. Working capital management also involves accounts payable and receivables. A company can preserve cash by select to extend the payment of suppliers and to make the most of available credit or may spend cash by purchasing using persuade estimation of working capital management.

A. Objectives of the Study

1. To analyze the changes in the working capital of Jeyam Automotive Pvt Ltd, for period of five years.
2. To identify the liquidity position and financial performance of the company.
3. To suggest suitable measure so as to improve the working capital position.

B. Scope of the Study

Working capital management allows business process their activities. Working capital management will lead to availability of sufficient funds. Business will receive regular supply of raw materials from supplier by paying on time which will help in continuing production activities regularly.

C. Limitations of the Study

1. Financial analysis is based upon monetary information.
2. As the financial statements are prepared on the basis of a going concern, it does not give exact position.
3. The accounting concepts and conversion cause a serious limitation to financial analysis.

2. Review of Literature

Natarajan Sundar (2015) [1] is of the opinion that working capital is important at both, national and the corporate level. Control on working capital at the national level is exercised primarily through credit controls. The Tendon Study Group has provided a comprehensive operational framework for the same. In operational terms, efficient working capital consists of determining the optimum level of working capital, financing it imaginatively and exercising control over it. He concludes that at the corporate level investment in working capital is as important as investment in fixed assets. And especially for a company which is not growing, survival will be possible only so long as it can match increase in operational cost with improved operational efficiency, one of the most important aspects of which is management of working capital.

Ahmadi Mosa, Saie Iraj and Garajafary Maryam (2016) [2]

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examine the relationship between working capital management and profitability in 33companies of automobile industry group member at stock Exchange for the period from 2006 to 2011, the effects of various variables of working capital management including average accounts collection cycle, inventory turnover, medium term debt payment and the cash conversion cycle on operational net profit of the companies.

Quayyaum Sayeda Tahmina (2016) [3] tries to investigate if there is any relationship between working capital management and profitability in manufacturing corporations. corporations enlisted with the Stock Exchange were be selected covering the period between 2005 and 2009. The purpose of the study is to examine whether there is statistically significant relationship between profitability and working capital management and explain the necessity of firms optimizing the level of working capital management efficiency and in that way, management taking productive actions to maximize their profitability.

Bagchi B. and Khamrul B. (2017) [4] investigate the relationship between working capital management and the companies‟ profitability, and identify the variables that most affect profitability. It is also an empirical study where the authors have investigated the effect of working capital management on the companies" profitability by using a sample of Indian FMCG companies. The study concludes with the observation that both CCC and debt used by the firm are negatively associated with the companies‟ profitability. This result can be further strengthened if the companies manage their working capital in more efficient ways which will ultimately increase their profitability.

Neeraj Sharma (2017) [5] Indian automobile processing industry accelerated their growth rate but still automobile processing industry under developed even after good base of agricultural production. India is largest producer of cashew nuts, fruits, tea, milk and coconut in world and contributes 1.17% Export share in world processed automobile market. Second part deals with skills and employment scenario of industry according to them automobile processing industry provides directly 13 million and indirectly 35 million employment opportunity, 82%labor of this industry works in unorganized sector whereas only 18% of labor works in organized sector.

T. K. Jadhav (2018) [6], the study expressed that India has huge market for processed automobile products because of high demand for all types of automobiles; raw material availability increased because of increased agricultural production, government is supportive for automobile processing industry. But still there are some obstacles to develop automobile processing industry like lack of infrastructural facilities, high competition and scarcity of capital. Researcher state that limitation for this study is only organized automobile processing sector considered for limited time period.

Barbara Bigliardi (2018) [7], Innovation in the automobile industry is increasingly based on the decisions and activities of the company itself but also, and in particular, of the other entities involved in the innovation system. Similar considerations hold for open innovation mechanisms: due to the wide number of players involved in the development of innovative products, innovation activities must be carefully coordinated. As such, the sector should exhibit a significant number of open innovation strategies, whose purpose may range from merely access to external sources of knowledge, to actively taking part in the creation of inter-organizational knowledge and skills. Although there is still limited empirical evidence regarding open innovation strategies in the automobile industry, some studies are available highlighting how different firms succeeded in overcoming some of the barriers to innovation. In this paper, we review the extant literature on open innovation practices in the automobile context, and specifically we analyse three main models recently proposed. Finally, we draw implication

Adebiyi (2019) [8]**,** Maintenance management is significant in determining the extent of achievement of production system objectives (manufacturing and service alike). It has thus received attention in recent times. In this work, maintenance practice factor (MPF) and maintenance practice contribution (MPC) quantitative measures were formulated to appraise the maintenance practice in automobile industries in Nigeria. The use of questionnaire and oral interviews were used to collect information from 40 automobile industries. The industries are grouped into meat and meat product, dairy and milk, beverages and brewery, and confectionery. Six types of maintenance being practiced are identified as preventive, predictive, corrective, running, overhauling and breakdown.

Rachit Kuchhal and Akanshu Verma (2019) [9]**,** the delhi student published research paper Analysis of Indian Automobile Industry- a Global Perspective In this paper comparative study of India‟s automobile industry and other countries specially BRICS and neighbour countries of india has done. This paper explained there is in multiple number businesses developed in automobile processing and provide huge employment opportunities. The researchers tried to explain automobile processing industry of India has been Compounded Annual Growth Rate of 11% with valued at USD 39.71 billion. 48 In terms grocery and automobile market India is on 6th position in entire world and employment annual growth rate is 5.1%. Nearby 21% of India‟s GDP accounts for Automobile and its products Contribution of automobile processing industry in Gross Domestic Product (GDP) has increased upto Rs.66078 cr. in 2009-10 from Rs 44355 cr. in 2004-05, with Compound Annual Growth Rate (CAGR) of 8.49 percent.

Surendra P. Singha, (2020) [10]**,** Researchers also mention the factors of production, processing and distribution which affecting the automobile processing industry. Skill factor is very important for efficient production but due to lack of skill and outdated technology traditional methods are used. Capital availability to farmer and manufacture is very poor. The conclusion made by SWOT analysis there are so many supporting things like large size of Indian market, social trend for consuming processed automobile, availability of raw material, cheap human resource etc. which helps develop this industry. There are still some weaknesses like high working capital requirement, sub-standard quality of raw material, low level of research and development, inadequate automation etc.

restrict development of this industry.

3. Research Methodology

A. Research Design

The methodology used this study is descriptive in nature where the researcher has to use facts (or) information already available in the study and characteristics of a particular group respectively and there by analyze to make a evaluation of the study. The secondary data is used for the study and are collected from the annual reports of the company.

B. Tools for Data Analysis

Schedule for Working Capital Management

4. Data Analysis

The analysis of data requires the number of related calculated operations such as establishment of categories, the application of these categories to raw data through working capital, tabulation and then drawing inferences. The unwieldy data should necessarily condense into a manageable groups and tables for ratio analysis.

Interpretation:

The table 1 shows that the working capital in 2017-18 was currents assets decreased to -16.75 Current Liabilities decreased to -10.17 again decreased to -33.74.

Interpretation:

The table 2 shows that the working capital in 2018-19 was currents assets decreased to -12.06 Current Liabilities increased to 10.42 again decreased to -90.72.

Interpretation:

The table 3 shows that the working capital in 2019-20 was currents assets decreased to -8.10 Current Liabilities increased to 7.37 again decreased to -652.96.

Interpretation:

The table 4 shows that the working capital in 2020-21 was currents assets increased to 0.38 Current Liabilities increased to 30.71 increased to 245.80

Table 1
Changes of working capital for the year 2017-18

Particulars	2017	2018	Changes	
			Increase/Decrease	Percentage of changes
Currents Assets:				
Inventories	187.90	141.25	-46.65	-24.83
Sundry debtors	59.74	129.79	+70.05	+117.26
Cash and Bank Balance	17.41	10.66	-6.75	-38.77
Loans and advances	669.08	495.96	-173.12	-25.87
Total (A)	**934.13**	**777.66**	**-156.47**	**-16.75**
Current Liabilities and provisions:				
Current Liabilities	645.38	590.32	-55.06	-8.53
Provisions	27.94	14.53	-13.41	-47.99
Total (B)	**673.32**	**604.85**	**-68.47**	**-10.17**
Working Capital [A - B]	**260.81**	**172.81**	**-88**	**-33.74**

Table 2
Changes of working capital for the year 2018-19

Particulars	2018	2019	Changes	
			Increase/Decrease	Percentage of changes
Currents Assets:				
Inventories	141.25	118.99	-22.26	-15.76
Sundry debtors	129.79	102.99	-26.8	-20.65
Cash and Bank Balance	10.66	75.79	65.13	610.97
Loans and advances	495.96	386.13	-109.83	-22.14
Total (A)	**777.66**	**683.9**	**-93.76**	**-12.06**
Current Liabilities and provisions:				
Current Liabilities	590.32	618.32	28	4.74
Provisions	14.53	49.55	35.02	241.02
Total (B)	**604.85**	**667.87**	**63.02**	**10.42**
Working Capital [A - B]	**172.81**	**16.03**	**-156.78**	**-90.72**

Table 3
Changes of working capital for the year 2019-20

Particulars	2019	2020	Changes	
			Increase/Decrease	Percentage of changes
Currents Assets:				
Inventories	118.99	98.94	-20.05	-16.85
Sundry debtors	102.99	110.74	7.75	7.52
Cash and Bank Balance	75.79	16.17	-59.62	-78.66
Loans and advances	386.13	402.62	16.49	4.27
Total (A)	**683.9**	**628.47**	**-55.43**	**-8.10**
Current Liabilities and provisions:				
Current Liabilities	618.32	688.26	69.94	11.31
Provisions	49.55	28.85	-20.7	-41.77
Total (B)	**667.87**	**717.11**	**49.24**	**7.37**
Working Capital [A - B]	**16.03**	**-88.64**	**-104.67**	**-652.96**

Table 4
Changes of working capital for the year 2020-21

Particulars	2020	2021	Changes	
			Increase/Decrease	Percentage of changes
Currents Assets:				
Inventories	98.94	130.84	31.9	32.24
Sundry debtors	110.74	45.71	-65.03	58.72
Cash and Bank Balance	16.17	6.84	-9.33	-57.70
Loans and advances	402.62	447.47	44.85	11.14
Total (A)	**628.47**	**630.86**	**2.39**	**0.38**
Current Liabilities and provisions:				
Current Liabilities	688.26	843.39	155.13	22.54
Provisions	28.85	93.99	65.14	225.79
Total (B)	**717.11**	**937.38**	**220.27**	**30.71**
Working Capital [A - B]	**-88.64**	**-306.52**	**-217.88**	**245.80**

Table 5
Stock to working capital ratio

Year	Stock (In lakhs)	W.C (In lakhs)	Ratio (Rs. in Cr.)
2016-17	187.90	464.04	0.40
2017-18	141.25	194.44	0.72
2018-19	118.99	16.03	7.42
2019-20	98.94	-88.64	-1.11
2020-21	130.84	-306.52	-0.43

Interpretation:

From the table 5, it is clear the stock to working capital ratio for the year 2016- 2017 the ratio was 0.40, the stock to working capital ratio is 0.72 to 2017-2018, the stock to working capital ratio is 7.42 to 2018-2019, was working capital ratio is -1.11 to 2019- 2020 was the stock to working capital ratio is -0.43.

Table 6
Debtors' turnover ratio

Year	Sales (In lakhs)	Average Debtors (In lakhs)	Ratio (Rs. in Cr.)
2016-17	1404.37	36.00	39.01
2017-18	2164.00	94.76	22.83
2018-19	1103.16	116.39	9.47
2019-20	1170.41	106.86	10.95
2020-21	707.28	78.22	9.04

Interpretation:

It was Debtors turnover ratio for the year 2016- 2017 was increased 39.01, 2017-2018 increased to 22.83 was 2018-2019 the Debtors turnover ratio is increased 9.47to, then again increase the Debtors turnover ratio is 10.95 in the year of 2019-2020 and the last year Debtors turnover ratio is increased to 9.04 in the year of 2020-2021.

Table 7
Gross profit ratio

Year	Gross Profit/Loss (In lakhs)	Net Sales (In lathes)	Ratio (Rs. in Cr.)
2016-17	182.40	1372.84	0.13
2017-18	-46.18	2138.33	-0.02
2018-19	11.78	1103.16	0.01
2019-20	-51.50	1170.41	-0.04
2020-21	-168.00	707.28	-0.23

Interpretation:

The table 7 shows that the gross profit ratio. This ratio is an indicator of the firm's ability to meet its current obligations. The lowest ratio (-0.23) was obtained during the period 2020-21 was highest ratio (0.13) value obtained during the period 2016-17.

Table 8
Net profit ratio

Year	Net Profit/Loss (In lakhs)	Net Sales (In lakhs)	Ratio (%) (Rs. in Cr.)
2016-17	103.49	1372.84	7.53
2017-18	-99.86	2138.33	-4.66
2018-19	-47.72	1103.16	-4.32
2019-20	-87.42	1170.41	-7.47
2020-21	-159.38	707.28	-22.53

Interpretation:

The table 8 shows that the Net profit ratio from 2016-17 to 2020-21. The ratio shows that (7.53) at 2016-17 was decreased to (-4.66) at 2017-18 was again it was continuously decreased to year by year.

Table 9
Current ratio

Year	Current Assets (In lakhs)	Current liabilities (In lakhs)	Ratio (Rs. in Cr.)
2016-17	957.36	493.32	0.99
2017-18	799.29	604.85	0.33
2018-19	683.90	667.87	0.02
2019-20	628.47	717.11	-0.13
2020-21	630.86	937.38	-0.36

Interpretation:

The table 9 shows that the current ratio is an indicator of the firm's ability to meet its current obligations. The lowest ratio (-0.36) was obtained during the period 2020- 2021 was highest ratio (0.99) value obtained during the period 2016-2017. The current asset ratio is above than the standard level.

Table 10
Liquidity ratio

Year	Liquid Assets (In lakhs)	Liquid liabilities (In lakhs)	Ratio (Rs. in Cr.)
2016-17	769.46	493.32	1.56
2017-18	658.04	604.85	1.08
2018-19	564.91	667.87	0.84
2019-20	529.53	717.11	0.74
2020-21	500.02	937.38	0.53

Interpretation:

The table 10 shows that liquidity ratio from 2016-17 to 2020-21. The liquidity ratio highest as 1.56 at 2017-18 and shows highest as 0.53 times at 2020-21.

Interpretation:

From the table 11, it was clear the stock turnover ratio for the year 2016-2017 the ratio 2017-2018 was 7.47, the increase to

15.32 in the year of year 2018-2019 the Stock turnover ratio is increased to 9.27, again increase to 11.83 in the year of 2019-2020 and the last year Stock turnover ratio is decreased to 5.41 in the year of 2020- 2021.

Table 11
Stock turnover ratio

Year	Sales	Stock	Ratio
2016-17	1404.37	187.90	7.47
2017-18	2164.00	141.25	15.32
2018-19	1103.16	118.99	9.27
2019-20	1170.41	98.94	11.83
2020-21	707.28	130.84	5.41

5. Findings

From the table 1, the working capital in 2017-18 was currents assets decreased to -16.75 Current Liabilities decreased to -10.17 again decreased to -33.74 From the table 2, the working capital in 2018-19 was currents assets decreased to -12.06 Current Liabilities increased to 10.42 again decreased to -90.72 From the table 3, the working capital in 2020-21 was currents assets increased to 0.38 Current Liabilities increased to 30.71 increased to 245.80

It was clear the stock to working capital ratio for the year 2016- 2017 the ratio was 0.40, the stock to working capital ratio is 0.72 to 2017-2018, the stock to working capital ratio is 7.42 to 2018-2019, the stock to working capital ratio is -1.11 to 2019- 2020 was the stock to working capital ratio is -0.43 to 2020-2021.

It was clear the stock turnover ratio for the year 2016- 2017 the ratio was 23.51, the Debtors turnover ratio is decrease to 16.67 in the year of 2017-2018 was then next year 2018-2019 the Debtors turnover ratio is decreased to 10.71, then again decrease the Debtors turnover ratio is 10.57 in the year of 2019-2020 was the last year Debtors turnover ratio is increased to 15.47 in the year of 2020-2021.

It was clear the indicator of the firm's ability to meet its current obligations. The lowest ratio (-0.23) was obtained during the period 2020-21 was the highest ratio (0.13) value obtained during the period 2016-17.

The above table shows that the Net profit ratio from 2016-17 to 2020-21. The ratio shows that (7.53) at 2016-17 was decreased to (-4.66) at 2017-18 was again it continuously decreased.

It was shows that the current ratio is an indicator of the firm's ability to meet its current obligations. The lowest ratio (-0.36) was obtained during the period 2020- 2021 was the highest ratio (0.99) value obtained during the period 2016-2017. The current asset ratio is above than the standard level. Therefore, the current ratio is considered satisfied.

It was liquidity ratio from 2016-17 to 2020-21. The liquidity ratio is decreasing. It has decreased the quick ratios satisfy the standard norm. The ratio shows highest as 1.56 at 2017-18 was shows highest as 0.53 times at 2020-21.

From the table 11, it is clear the stock turnover ratio for the year 2016-2017 the ratio 2017-2018 was 7.47, the increase to 15.32 in the year of year 2018-2019 the Stock turnover ratio is increased to 9.27, again increase to 11.83 in the year of 2019-2020 and the last year Stock turnover ratio is decreased to 5.41 in the year of 2020- 2021.

6. Suggestion

Automotive industry will come to be known more broadly as the mobility industry the next generation of products and services enabling the transportation of people and goods, combined with new technologies

7. Conclusion

The study has analyzed estimation of working capital management of automotive Industries. The manufacturing companies in India. The profitability of the company has an increasing trend over the study period. The study analyses that there is a positive and negative relationship between profitability and working capital of the company during the study period.

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