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A STUDY FOCUS ON CIRCULATION OF WORKING CAPITAL IN SELECTED TWO AND THREE WHEELER COMPANIES IN INDIA – AN ANALYSIS USING MOTAAL'S TEST

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ABSTRACT

Efficient management of working capital is essential for the success of any business organization. Investment in working capital affects the liquidity and profitability of the business. An attempt to increase profitability would lead to decrease in liquidity and a high liquidity position would adversely affect the profitability. Therefore the business organization strives to maintain a trade off between the liquidity and profitability. The paper attempts to study the working capital management practices of selected two and three wheeler companies in India. Motaal's test has been applied to assess the efficiency or liquidity position of the companies. Further an attempt has also been made to study the working capital management is measured in terms of various turnover ratios like the working capital turnover ratio, inventory turnover ratio, receivables or debtors' ratio and cash turnover ratio. The study is based on secondary data collected from the published corporate annual reports of the company. The results of Motaal's test indicate that out of six companies selected for the study, the liquidity position of the above selected units in the years 2018-19 and 2019-20 was best whereas the years 2017-18 and 2020-21 was rank last indicating a very low liquidity position.

Keywords: Two and Three Wheeler Companies, Working Capital Turnover Ratios and Motaal's Comprehensive Test.

I. Introduction

Funds are needed in every business for carrying on day-to-day operations. Working capital funds are regarded as the life blood of a business firm. A firm can exist and survive without making profit but cannot survive without working capital funds. If a firm is not earning profit, it may be termed as 'sick', but not having working capital may cause it bankruptcy and closure over a period of time. In addition, working capital has acquired a great significance and sound position for the twin objects of "Profitability and Liquidity". It consumes a great deal of time to increase profitability as well as to maintain proper liquidity at minimum risk. Leslie R. Howard rightly pointed out that a deeper understanding of the importance of working capital and its satisfactory provision can lead not only to material savings in the economical use of capital but can also assist in furthering the ultimate aim of a business, namely, that of maximizing financial returns on the minimum amount of capital which need to be employed.

II. Statement of the problem

As such, the study is expected to help the corporate management, the financiers, the investors and the government at large, to take valuable decisions at their own. The study has academic relevance too in so far as new theoretical and

practical knowledge would be added to the existing stock of knowledge undoubtedly. The present study will act as a masterpiece on the subject for further research and development. There is no study on working capital management of Two and Three Wheeler Sector after liberalization. Therefore, to cover the gaps in the earlier studies, the present study is undertaken to give an insight into the working capital management of selected Two and Three Wheeler Companies in India. It would also enable shareholders, investors and investment analyst to identify the determinants of corporate performance. Further, it would provide insight to banks, financial institutions and long - term lenders to understand the financial capability and effectiveness of the companies. Moreover, it would open up new vistas to the industry association and the government in understanding the characteristics of the companies for their and intra - firm comparison. It might also help the academic researchers in securities, industry and company by providing different perspective of the analysis.

III. Objectives of the study

The present study is designed to examine management of working capital in the selected two and three wheeler companies in India.

1. To analyze the circulation of working capital such as inventory, receivables and cash management.
2. To measures the efficiency of working capital management in selected two and three wheeler companies in India.
3. To present summary of the study and to make suitable suggestion for improvement in the competitive business world.

IV. Research Methodology

In research, the methodology needs to be cautiously designed to capitulate results that are as objective as realistic. An able-bodied comprehensible modus operandi empowers the new-fangled research investigator re-examine the study milieu. Good methodology follows the standards of the established conventions. For the present study, a number of indispensable inimitabilities of the research methodology skirmishing the application magnitude and research rationalization of each one are defined here in this chapter.

1.4.1 Research design

It is not possible in practice for an individual research worker to approach all the bits and pieces in the universe. Researchers select only a small amount of bits pieces from the universe for the purpose of the study on the basis of stratified sampling. The sample so selected constitutes the sample design for the purpose. A research design is a definite plan for obtaining a sample from a given population. Research design means a sketch or a drawing of a research project's structure. It comprises a series of prior pronouncements that, taken together, provide a roadmap for carrying out a research project. The research design of the present study is outlined hereunder.

1.4.2 Selection of sample

Keeping in view the scope of the study, it is decided to include all the companies under automobile industry working before or from the year 2014-15 to 2023-24. But, owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year etc., the researcher is compelled to restrict the number of sample companies to six. Therefore, this study is expost facto based on survey method making a survey of nine companies in two and three wheeler sector in India.

The Two and Three Wheeler Sector is purposively selected for the present study, considering its importance as the backbone of economic growth in any country. The database of CMIE has made compilation for nine two and three wheeler companies of which only six companies have financial data for a continuous period of 10 years namely from 2014-15 to 2023-24. Owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year, etc. for the purpose of the present study only six large two and three wheeler companies have been selected. The criterion adopted for the selection of companies in the present study is the size of their total assets of fifty crore rupees and above, as it is the only characteristics for which information is available at the population level.

1.4.3 Source of data

The data used for the present study is secondary data. The major source of data analyzed and interpreted in this study related to all those data which was collected from "PROWESS" database, which is the most reliable on the empowered

corporate database of Centre for Monitoring Indian Economy (CMIE). The database provides financial statements, ratio analysis, fund flows, product profiles, returns and risk on the stock market. The Reserve bank of India Bulletin, Business newspapers, Annual survey of industry, CMIE publications, Libraries of various research institutions through internet etc. have also been used as a data source.

1.4.5 Data analysis

In the course of analysis in this study, use of various accounting and statistical techniques have been made. Accounting technique includes ratio analysis, while among statistical techniques the Arithmetic Mean (X), Co-Efficient of Variation (CV), Standard Deviation (SD), Compound Annual Growth Rates (CAGR) and Motaal's Comprehensive Test have been applied through EXCEL and SPSS statistical software.

V. Limitations of the study

There are some limitations are as follows, the most important among them are:

1. The study is based on secondary data obtained from the published annual reports and as such its finding depends entirely on the accuracy of such data.
2. Statistical test used in the study to interpret the analyzed data to generalize the findings of the study for the entire population has got their own limitations and result in the analysis is subject to some constraints as are applicable to statistical tools.
3. The financial statement does not keep pace with the changing price level.

VI. REVIEW OF LITERATURE

The chapter is an attempt to evaluate the research on various components of working capital management of Selected Two and Three Wheeler Companies in India that are either directly or indirectly linked with the present study.

Turan et.al., (2013)[1] attempt to examine the relationship between working capital management and profitability by making an inter sector comparison of two manufacturing industries i.e. Chemical industries and Pharmaceutical industries. 50 companies from each sector based on market capitalization and listed on BSE and 500 indices were selected for the research for the period from 2002 to 2011. At the end of the analysis it was concluded that in spite of similar nature of both the industries in the manufacturing sector, working capital management variables affect profitability indices more strongly in the chemical industry than in the pharmaceutical industry. It was also observed that both the industries have a significant relationship between profitability and working capital management variables. Besides, working capital management variables affect more strongly the profitability indices of chemical industry than those of pharmaceutical industry.

Wobshet Mengesha (2014)[2] investigated the effect that efficient management of working capital has on the overall performance of organizations by conducting an analysis. Return on total assets and return on investment capital were utilized as dependent financial performance (profitability) criteria in order to ascertain how accurately the performance was evaluated in terms of profitability. According to the results, a longer duration of time spent holding accounts receivable and a longer period of time spent doing the same with inventories are both connected to lower levels of profitability. The findings also indicate that there is a substantial inverse association between the cash conversion cycle and several indicators of profitability of the businesses that were sampled. This conclusion can be drawn from the fact that the cash conversion cycle was found to have a negative correlation with profitability. According to the data, there is a very significant and negative connection between return on asset, the amount of time it takes to convert inventory, the amount of time it takes to process accounts payable, and the amount of time it takes to process accounts receivable. On the basis of the data, one might reach the inference that there is a substantially inverse link between the cash conversion cycle and the return on asset.

Muhammad (2015)[3] investigated the various aspects that play a role in deciding the amount of working capital utilized by non-financial businesses in Pakistan over the course of a period of six years (2004-2009), taking into account a variety of economic and financial variables connected to the enterprise. The period of time that this research covers is from 2004 to 2009. Descriptive analysis, analysis of variance (ANOVA), correlation analysis, and regression analysis were all carried out on the panel data in order to study the relationship between the different components and working capital management. The results of this study indicate that characteristics such as an organization's operating cycle return on assets, debt, size, and degree of economic activity all have a negative impact on its needs for working capital. On the other hand, aspects of a

company such as its operational cash flows and sales growth might have a beneficial impact on the working capital needs of the company.

Navena et al. (2017)[4] looked into the possibility that efficient management of working capital might have an influence on the profitability of companies operating in the automotive sector. For the purposes of this research, India is taking into consideration the most successful manufacturing companies that are included on the S&P CNX 500 index and that are situated inside India's geographical borders. Using the working capital management practices of some of the largest listed companies in Indian automobile industry, the purpose of this study is to demonstrate how effective working capital management can affect a company's profitability. In other words, management of working capital makes it possible to maintain an appropriate equilibrium between each of the working capital components. Industries have the capacity to either cut their financing costs or boost the funds that are available for the expansion of projects if they increase the amount of investment that is tied up in current assets by lowering the amount of investment that is tied up in the past. When seen from a more macro viewpoint, current assets are considered to be one of the most important components that make up an organization's total assets. The purpose of this research is to determine whether or not effective management of working capital may have a positive impact on the profitability of businesses in India's car industry.

Jyoti Saini (2018)[5] explored that over the course of the past several years, the auto-components business in India has had a robust development rate. A robust end-user market, increased consumer mood, and the recovery of enough liquidity in the banking system are some of the elements that can be attributed to this positive development. Based on the findings of the research as a whole, it is recommended that each organization maximize the use of their internal sources and work to lower their operational costs. Each company needs to find more avenues of cash generation in order to combat the ongoing liquidity issues. The most essential thing is for them to guarantee a healthy equilibrium between their internal and external sources of money. To maximize the return on investment for the company's stockholders, improving the company's access to external sources of finance is essential. A significant amount of a company's operating expenses eats away at its earnings. Therefore, it is essential to pay attention to lowering these operating expenditures in order to increase profits and develop a strong image in the Indian market.

Rekha, Sitlani, and Melwani (2019)[6] argued that the financial performance of listed 2/3 wheeler manufacturing enterprises in India, as well as the effect of internal financial factors on financial performance, are the foundation of the current research. The study used a causal research approach, which entails examining cause-and-effect connections. The research is based on secondary data that was gathered from annual reports of companies that manufacture two- and three-wheeled vehicles and are listed on the BSE in India. The findings showed that some internal financial factors, which have different effects on financial performance, have an influence on financial performance. The main goal of the current research was to determine how internal financial factors affected the financial performance of 2/3 wheeler manufacturing vehicle enterprises. Multiple regression analysis was used to do this. Return on Assets has been used to gauge financial success. Financial performance was adversely affected by leverage and the intensity of R&D. Performance was significantly impacted by the assets that were backed by borrowing, and spending on R&D did not generate large sales income for the companies. The chosen Indian automakers are reputable businesses, some of which have been there since before the country's independence. Due to competition from foreign companies already present in the Indian market, Indian businesses are suffering and attempting to enhance their performance.

Parameshwara and Abdul Rahman (2021)[7] The World Health Organization (WHO) has identified COVID-19 as a unique corona virus epidemic that has plunged mankind and the world economy into chaos. This investigation of the working capital management practices of a few Indian four-wheeler automakers, Indian manufacturers of four-wheeled vehicles made an effort to balance their needs for working capital by raising their payables in order to make up for rising inventory balances and declining collections. According to our data, 69% of Indian four-wheeler enterprises had an increase in their payables cycle over the previous 12-month period in the 12 months that concluded. There is still a critical need for businesses in India to enhance their working capital processes, even if certain industries have embraced targeted methods to reduce working capital issues. Working capital management should be seen as a comprehensive approach to increase productivity and profitability across the firm, not only as a financial best practice. It has had an impact on working capital cycles for four-wheeler automakers in India across all industries.

Seema Pandit (2023)[8] Well-organized management of working capital is necessary for the success of any business organization. Investment in working capital affects the liquidity and profitability of the business. An attempt to increase

profitability would lead to decrease in liquidity and a high liquidity position would adversely affect the profitability. Therefore the business organization strives to maintain a tradeoff between the liquidity and profitability. The paper attempts to study the working capital management practices of selected companies in the automobile sector. Motaal's test has been applied to assess the liquidity position of the companies. Further an attempt has also been made to study whether there is correlation between the liquidity and profitability. The working capital management is measured in terms of various ratios like the current ratio, liquidity ratio, stock turnover ratio, debtors' ratio and working capital ratio. The profitability of the companies is measured as Return on Capital Employed and Return on Net Worth. The results of Motaal's test indicate that out of ten companies selected for the study, the liquidity position of Bajaj Auto Ltd is best whereas Tata Motors is at rank ten indicating a very low liquidity position.

Gurusamy et al. (2024)[9] accelerated development of the electric vehicle (EV) market, particularly for two-wheelers, in response to environmental concerns and the demand for sustainable transportation solutions, renders this research particularly relevant. The authors develop a comprehensive decision-making framework that requires the evaluation of a diverse array of criteria, including energy efficiency, performance metrics, battery range, recharge time, cost-effectiveness and environmental impact. The study employs advanced decision-making techniques, such as the Analytical Hierarchy Process (AHP) and the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), to evaluate and determine the efficacy of a variety of E2Ws. The authors emphasize the importance of integrating regional driving cycles into the decision-making process to ensure that the selected electric two-wheelers are not only compliant with international standards but also optimized for local driving conditions. The framework prioritizes models that perform well under both standard and region-specific driving conditions, thereby encouraging the adoption of electric two-wheelers that are cost-effective, efficient and well-suited to a variety of driving environments.

Sharma et al. (2024)[10] examined the impact of technological innovations and advancements on the operational efficiency, product quality and competitiveness of the two-wheeler manufacturing industry. The authors focus on the role of technology in the optimization of manufacturing processes, the enhancement of automation and the development of product design to meet the evolving needs of consumers. The research underscores the ways in which these technologies contribute to the acceleration of the time-to-market for new models, the reduction of production costs and the reduction of defects. Additionally, the study examines the ways in which technology integration enables sustainability initiatives, with a particular focus on the reduction of energy consumption and pollution during the manufacturing process. The authors emphasize the importance of continuous investment in technological advancements to maintain a competitive edge in the quickly changing automotive industry. The research establishes technology as a critical component for organizations that aspire to remain competitive in the global market, providing a critical comprehension of the strategic role of technology in the enhancement of both production and product development.

VII. ANALYSIS AND INTERPRETATION - CIRCULATION OF WORKING CAPITAL AND MOTAAL'S COMPREHENSIVE TEST

7.1 CIRCULATION OF WORKING CAPITAL

An analysis of circulation of working capital highlights the efficiency with which it is being utilized. This analysis has developed certain turnover ratios which reflect upon the efficiency in the use of working capital and its components. Generally, the higher the level of these turnover ratios, the more efficient is the use and the smaller would be the requirements of working capital of an enterprise. These ratios include Working Capital Turnover Ratio (WTR), Inventory Turnover Ratio (ITR), Receivable Turnover Ratio (RTR) and Cash Turnover Ratio (CTR). For the purpose of the present study, the statistical values of these ratios (mean, C.V. and CAGR) have been given in Table 1.

7.1.1 Working Capital Turnover RATIO (WTR)

A close relationship exists between sales and net working capital. With any increase in sales volume, there is a corresponding increase in the working capital. Therefore, a good amount of net working capital may be needed to support the increase in sales. The ratio helps to assess the degree of efficiency in the use of short-term funds for generating sales. In order to test the efficiency with which working capital is utilized the working capital turnover is calculated. It is calculated by dividing the net working capital to sales. It indicates whether a business is being operated with a small or large amount of net working capital, which is related to the cost of sales. A high working capital turnover may be the result of favourable turnover of inventories and receivables of may reflect an inadequacy of working capital. On the other hand, a low turnover

of working capital may be an outcome of the excess of working capital of slow turnover of inventories and receivables or a large cash balance or investment of working capital in the form of temporary investment. However, a very high turnover of working capital might indicate that the working capital is insufficient for the given volume of business. A very low working capital turnover ratio should clearly be taken to mean that the capital is not sufficient active. So a high ratio indicates that management is aggressive in its use of working capital. However, an excessive high ratio indicates inefficient working capital management may be inadequate at present sales.

Working Capital Turnover Ratio = Net Sales / Net working capital

The information pertaining working capital turnover ratio has been shown in Table 1. It indicates that the industry average of working capital turnover ratio has recorded a highly fluctuating trend. In the year the working capital turnover ratio, it was maximum 20.64 during the year 2020-21 and minimum 12.47 during the year 2016-17.

The mean value of industry average of working capital turnover ratio was 16.25. Among the selected units the highest mean value of this ratio was 66.77 gained by Bajaj Auto Limited, followed by Kinetic Engineering Limited with 12.38, Atul Auto Limited with 10.07, Majestic Auto Limited with 4.57, Maharashtra Scooter Limited with 2.53 and Scooters India Limited with 1.16. The computation of standard deviation of working capital turnover ratio of industry average was 16.25 and it was maximum 66.77 obtained by Bajaj Auto Limited and its minimum 1.16 was obtained by Scooters India Limited. On basis of coefficient of variation of mean value of industry average was 15.57 during the period of entire study and it was minimum gained by Bajaj Auto Limited 17.05 and its maximum 98.19 obtained by Kinetic Engineering Limited. The compound annual growth rate is positive in all the selected two and three wheeler companies in India except Atul Auto Limited and Scooters India Limited.

7.1.2 Inventory Turnover Ratio (ITR)

Turnover of inventory directly affects the liquidity and profitability of a firm. This ratio helps to judge the efficiency of inventory management. "Ordinarily the higher the rate of inventory turnover, the larger the amount of profit, the smaller the amount of working capital tied up in inventory, and the more current the stock of merchandise[2]. Generally it is believed that a high inventory turnover implies more efficient management of inventory. This is however true, up to a point and beyond that a high inventory turnover will invite problems[3]. This is because; inventory turnover can be increased by carrying very small inventories also. But this policy may lead to a large number of stock-outs leading to loss of sales. For each industry, there is a range of inventory turnovers that may be considered good[4]. However, while interpreting this ratio, care must be exercised that a very high turnover ratio may be the result of an unduly small size of the inventory which adversely affects smooth operations. A low ratio suggests poor inventory management.

Inventory Turnover Ratio = Net Sales / Inventory

The information pertaining to inventory turnover ratio has been shown in Table 1. It indicates that the industry average of inventory turnover ratio has recorded a fluctuating trend. The industry average of this ratio was 20.33; it was maximum 43.93 in the year 2015-16 and minimum 6.16 in the year 2020-21. The mean value of inventory turnover ratio was highest 62.52 attained by Maharashtra Scooters Limited and lowest 1.81 got by Scooters India Limited.

The mean value of inventory turnover ratio of industry average was 20.33 during the period of the study. The mean value of this ratio in Maharashtra Scooters Limited (62.52) and Bajaj Auto Limited (27.72) has been higher than that of industry average position during the period under study. However, among the selected two and three wheeler companies like Atul Auto Limited (13.67), Majestic Auto Limited (12.50), Kinetic Engineering Limited (3.79) and Scooters India Limited (1.81) had been lower than the industry mean value during period under study. On the basis of standard deviation of the respective ratio of industry average value was 10.66 and it was maximum 33.91 obtained by Maharashtra Scooters Limited and its minimum 1.04 was gained by Scooters India Limited. The CV value of this ratio showed high fluctuations among the selected two and three wheeler companies during the entire study period. The compound annual growth rate was negative in all the chosen companies excluding Majestic Auto Limited.

7.1.3 Receivables Turnover Ratio (RTR)

The receivables turnover gives a general measure of the productivity of the receivables investment[5]. It is also a measure of a firm's liquidity or activity. The higher the enterprise's accounts receivable turnover, the more favourable it is. It indicates the speed with which receivables are converted into cash. To maximize profitability, a higher turnover of inventory should be accompanied by prompt collection of receivables.

Receivables Turnover Ratio = Net Sales / Receivables

A fluctuating trend in the receivables turnover ratio of the selected public sector oil and refinery companies is noticed from Table 1. It explains that the industry average of debtors' turnover ratio has recorded fluctuating trend during throughout the study period. The industry average of this ratio was (37.80) decreasing in the year 2016-17 and then immediately started to increase 36.65 in 2018-19 finally it reached 56.66 in 2023-24. The mean value of industry average of receivables turnover ratio was 37.80 during the period of the study and among all the selected two and three wheeler companies it was the highest of 132.57 reached by Scooters India Limited and its minimum 3.81 attained by Kinetic Engineering Limited. The standard deviation of this ratio of industry was 8.91 during the period under study. Among all the selected companies it was maximum 43.37 obtained by Majestic Auto Limited and its minimum 0.61 was gained by Kinetic Engineering Limited. The computation of coefficient of variation of debtors turnover ratio throughout the period of the study was 23.58 and then it was maximum 171.24 obtained by Majestic Auto Limited and its minimum 15.90 gained by Kinetic Engineering Limited. The compound annual growth rate of debtors turnover ratio was positive in most of the companies under study except Atul Auto Limited and Bajaj Auto Limited.

7.1.4 Cash Turnover Ratio (CTR)

The cash turnover ratio indicates the number of times the average cash balance is turned over during the year. It helps to evaluate the cash management performance. While interpreting this ratio, it should be borne in mind that increase in the ratio may be due to inadequate cash balances. The study of cash turnover ratio provides a deep insight into the cash balance held by a concern.

Cash Turnover Ratio = Net Sales / Cash

The information pertaining cash turnover ratio of selected two and three wheeler companies has been presented in Table 1. It explains that the industry average of this ratio has recorded a fluctuating trend throughout the period of the study. Moreover the industry average of cash turnover ratio was 26.22, 30.43 and 49.14 in the year 2017-18, 2020-21 and 2023-24 respectively has decreasing face in the selected study period. The mean value of cash turnover ratio of industry average was 46.99 during the period under study. In this ratio Kinetic Engineering Limited (175.96) and Atul Auto Limited (41.19) was higher than that of industry average position during the study period. However, among the selected companies like Bajaj Auto Limited (26.53), Majestic Auto Limited (21.03), Maharashtra Scooters Limited (15.18) and Scooters India Limited (2.03) had been lower than the industry mean value during the period under study. Among all the selected companies it was highest mean value of this ratio 175.96 gained by Kinetic Engineering Limited and its minimum 2.03 obtained by Scooters India Limited. The result of standard deviation reveals that the industry average was 23.30 and the maximum of this ratio 123.15 was gained by Kinetic Engineering Limited and its minimum 0.89 was obtained by Scooters India Limited.

The computation of coefficient of variation of cash turnover ratio was recorded as 49.60 throughout the period of study. It was maximum 122.23 obtained by Maharashtra Scooters Limited and its minimum 43.58 was gained by Scooters India Limited. The compound annual growth rate of this ratio was positive in all the selected units Bajaj Auto Limited and Scooters India Limited.

7.2 MOTAAL'S COMPREHENSIVE TEST

. An attempt has been made to evaluate the overall operating efficiency position of selected two and three wheeler companies during the study period. Motaal's Comprehensive Test has been applied in Table 2. In this test, a method of ranking has been applied to reach at a more comprehensive assessment of operating efficiency in which four turnover

ratios, viz, inventory turnover ratio, debtors turnover ratio, cash turnover ratio and working capital turnover have been computed and combined in a points score. As high value turnover ratio shows greater operating efficiency, ranking has been done accordingly in that order. Ultimate ranking further has been done on the basis that the lower the total of individual ranks, the more favourable is the efficiency of the firm and vice versa. Table 2 furnishes that in the selected two and three wheeler companies during the year 2018-19 and 2019-20 marked the greater operating efficiency position and it was followed by the years 2015-16, 2023-24, 2014-15, 2022-23, 2016-17, 2021-22, 2020-21 and 2017-18.

VIII. RECOMMENDATIONS

Keeping in view the above observations relating to the study, the following measures are suggested which would go a long way to improve management of working capital in the two and three wheeler sector in India.

1. The management of working capital is delicate area in the field of financial management involving frequent decision making concerned with all those acts the influence the size and effectiveness of working capital.
2. Any business firms must maintain a sufficient amount of working capital in order to run its business at a satisfactory level. Both excessive as well as inadequate working capital position are dangerous from the firm's point of view.
3. Therefore, management of working capital is essential to ensure that the amount of working capital available is neither too large nor too small. It must be kept at an optimal level in a firm, so as to achieve a trade of between liquidity & profitability.
4. This dimension indicates the dangers of keeping excessive and inadequate working capital. Inadequate working capital means shortage of raw-materials and other inputs-results in underutilization of machinery and finally leads to failure of business.
5. On the other hand, excessive working capital leads to over-stocking, excessive receivables, a tax-collection policy, surplus cash and lack of co-ordination that hampers profitability. Therefore, the amount of working capital in a business should be neither less nor excessive than required.
6. Moreover, the sources of financing working capital must be selected after due consideration to timings of inflows & outflows, cost of capital and risk aspects.
7. Last but not the least, the policy making activity regarding various components of working capital i.e. cash, inventories and receivables has been treated as the major area in modern financial manager's working sphere.
8. On the basis of above it can be easily said that management of working capital is quite significant from a firm's and industry's viewpoint and automobile sector in no exception to it.
9. The company has to work towards maintaining an increase in working capital, as it is very essential for the effective functioning of the company.
10. The upward position in working capital may be increased by adopting proper and consistent working capital management policy by the company.

IX. CONCLUSION

The automobile industry is one of the key players in the Indian economic development. It has the world top most ranking of manufacturing sector and emerge as the largest segment. The industry contributes greater to the GDP of our nation. It is concluded, in the aspects of working capital performance of selected two and three wheeler companies in India show positive growth though it has greatest fluctuations in the initial stage. More over the working capital management is one of the most important decisions for financial decisions in any business unit. The researcher had tried to carry out a comparative analysis on working capital management. The results show that turnover position of selected two and three wheeler companies was better, because their results are stable. It may further conclude that these firms properly manage components of working capital like cash, marketable securities, receivables and inventory management and make collection as soon as possible to strength there financial sources.

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Table 1

Circulation of Working Capital in Selected Two and Three Wheeler Companies in India

Values in Times

Year / Company	Working Capital Turnover Ratio							Inventory Turnover Ratio						
	AAL	BAL	KEL	MSL	MAL	SCIL	Industry Average	AAL	BAL	KEL	MSL	MAL	SCIL	Industry Average
2014-15	12.12	61.29	5.20	0.13	3.95	1.91	14.10	20.74	17.74	3.68	81.29	11.87	4.46	23.30
2015-16	15.57	57.93	4.31	0.14	11.07	1.29	15.05	21.79	95.49	3.44	130.69	9.59	2.56	43.93
2016-17	8.57	54.57	5.61	1.33	3.61	1.14	12.47	19.62	62.81	3.67	35.43	0.33	1.84	20.62
2017-18	6.95	58.74	7.32	2.82	6.61	0.87	13.88	14.99	8.45	4.43	69.27	0.83	1.45	16.57
2018-19	8.50	61.14	22.62	3.77	12.21	0.77	18.17	13.84	57.07	4.70	70.79	27.52	0.87	29.13
2019-20	7.87	62.98	16.28	6.54	0.39	1.02	15.85	12.89	8.92	4.27	87.82	15.23	1.24	21.73
2020-21	9.77	67.30	42.71	2.26	0.31	1.46	20.64	11.86	1.46	3.80	8.83	9.33	1.67	6.16
2021-22	11.38	71.43	7.64	3.20	0.84	1.53	16.00	5.97	10.79	2.81	38.66	7.91	1.47	11.27
2022-23	8.71	82.43	5.78	4.47	1.88	0.88	17.36	5.82	5.80	3.69	42.45	9.31	1.32	11.40
2023-24	11.24	89.84	6.36	0.69	4.79	0.78	18.95	9.15	8.61	3.38	59.93	33.03	1.18	19.21
Mean	**10.07**	**66.77**	**12.38**	**2.53**	**4.57**	**1.16**	**16.25**	**13.67**	**27.71**	**3.79**	**62.52**	**12.50**	**1.81**	**20.33**
S.D	**2.55**	**11.39**	**12.16**	**2.06**	**4.25**	**0.38**	**2.53**	**5.76**	**32.20**	**0.55**	**33.91**	**10.48**	**1.04**	**10.66**
C.V (%)	**25.36**	**17.05**	**98.19**	**81.33**	**93.19**	**32.63**	**15.57**	**42.13**	**116.19**	**14.61**	**54.24**	**83.90**	**57.47**	**52.44**
CAGR (%)	**-0.75**	**3.90**	**2.03**	**18.17**	**1.95**	**-8.57**	**3.00**	**-7.86**	**-6.97**	**-0.85**	**-3.00**	**10.78**	**-12.45**	**-1.91**

Sources: Compiled from Annual Reports of the Respective Units

Table 1 *Contd*……

Circulation of Working Capital in Selected Two and Three Wheeler Companies in India

Values in Times

Year / Company	Receivables (or) Debtors Turnover Ratio							Cash Turnover Ratio						
	AAL	BAL	KEL	MSL	MAL	SCIL	Industry Average	AAL	BAL	KEL	MSL	MAL	SCIL	Industry Average
2014-15	47.52	17.77	2.64	36.27	8.01	88.95	33.53	9.53	14.84	88.18	0.63	12.42	2.46	21.34
2015-16	23.77	73.00	3.29	46.93	7.67	105.20	43.31	19.10	36.74	66.53	1.64	18.81	2.29	24.18
2016-17	10.98	31.27	3.54	13.03	0.22	117.91	29.49	41.42	59.98	107.82	0.35	27.55	2.48	39.93
2017-18	8.61	3.17	3.81	29.13	0.47	112.49	26.28	37.18	48.80	48.42	6.13	14.95	1.83	26.22
2018-19	9.08	35.18	4.02	26.72	15.30	129.62	36.65	31.13	60.21	186.81	16.63	27.28	1.91	54.00
2019-20	7.47	4.90	4.29	50.73	13.17	199.53	46.68	39.74	20.98	257.27	2.58	41.88	3.41	60.98
2020-21	7.01	1.19	4.43	5.33	9.83	187.04	35.80	32.97	3.06	137.80	0.54	5.11	3.08	30.43
2021-22	5.84	8.49	3.30	23.08	11.56	145.45	32.95	34.89	8.95	310.63	43.04	21.56	1.18	70.04
2022-23	13.37	4.64	4.21	26.28	43.07	128.28	36.64	54.82	4.74	434.14	41.58	25.48	0.92	93.61
2023-24	19.56	6.88	4.52	53.74	143.97	111.27	56.66	111.17	7.03	121.96	38.70	15.21	0.77	49.14
Mean	**15.32**	**18.65**	**3.81**	**31.12**	**25.33**	**132.57**	**37.80**	**41.19**	**26.53**	**175.96**	**15.18**	**21.03**	**2.03**	**46.99**
S.D	**12.71**	**22.51**	**0.61**	**15.90**	**43.37**	**35.54**	**8.91**	**27.49**	**22.94**	**123.15**	**18.55**	**10.22**	**0.89**	**23.30**
C.V (%)	**82.94**	**120.68**	**15.90**	**51.10**	**171.24**	**26.81**	**23.58**	**66.73**	**86.46**	**69.99**	**122.23**	**48.60**	**43.58**	**49.60**
CAGR (%)	**-8.49**	**-9.05**	**5.52**	**4.01**	**33.49**	**2.26**	**5.39**	**27.85**	**-7.20**	**3.30**	**50.95**	**2.05**	**-10.97**	**8.70**

Sources: Compiled from Annual Reports of the Respective Units

Table 2

Statement of Ranking in order of Activity Ratios - Motaal's Comprehensive Test

Year	Atul Auto Limited				Ultimate Rank	Rank	Bajaj Auto Limited				Ultimate Rank	Rank	Kinetic Engineering Limited				Ultimate Rank	Rank
	ITR	RTR	CTR	WCTR			ITR	RTR	CTR	WCTR			ITR	RTR	CTR	WCTR		
2014-15	2	1	10	2	**15**	**9**	4	4	6	6	**20**	**6**	6	10	8	9	**33**	**2**
2015-16	1	2	9	1	**13**	**10**	1	1	4	9	**15**	**9**	8	9	9	10	**36**	**1**
2016-17	3	5	3	7	**18**	**7**	2	3	2	10	**17**	**8**	7	7	7	8	**29**	**3**
2017-18	4	7	5	10	**26**	**5**	8	9	3	8	**28**	**3**	2	6	10	5	**23**	**5**
2018-19	5	6	8	8	**27**	**3**	3	2	1	7	**13**	**10**	1	5	4	2	**12**	**9**
2019-20	6	8	4	9	**27**	**3**	6	7	5	5	**23**	**4**	3	3	3	3	**12**	**9**
2020-21	7	9	7	5	**28**	**1**	10	10	10	4	**34**	**1**	4	2	5	1	**12**	**9**
2021-22	9	10	6	3	**28**	**1**	5	5	7	3	**20**	**6**	10	8	2	4	**24**	**4**
2022-23	10	4	2	6	**22**	**6**	9	8	9	2	**28**	**3**	5	4	1	7	**17**	**7**
2023-24	8	3	1	4	**16**	**8**	7	6	8	1	**22**	**5**	9	1	6	6	**22**	**6**

Sources: Computed

Table 2 *Contd*…….

Statement of Ranking in order of Activity Ratios - Motaal's Comprehensive Test

Year	Maharashtra Scooters Limited				Ultimate Rank	Rank	Majestic Auto Limited				Ultimate Rank	Rank	Scooters India Limited				Ultimate Rank	Rank	Overall Ultimate Rank	Overall Rank
	ITR	RTR	CTR	WCTR			ITR	RTR	CTR	WCTR			ITR	RTR	CTR	WCTR				
2014-15	3	4	8	10	**25**	**3**	4	7	9	5	**25**	**5**	1	10	4	1	**16**	**9**	**34**	**5**
2015-16	1	3	7	9	**20**	**6**	5	8	6	2	**21**	**6**	2	9	5	4	**20**	**5**	**37**	**3**
2016-17	9	9	10	7	**35**	**2**	10	10	2	6	**28**	**3**	3	6	3	5	**17**	**7**	**30**	**7**
2017-18	5	5	5	5	**20**	**6**	9	9	8	3	**29**	**2**	6	7	7	8	**28**	**4**	**24**	**9**
2018-19	4	6	4	3	**17**	**9**	2	3	3	1	**9**	**10**	10	4	6	10	**30**	**2**	**43**	**1**
2019-20	2	2	6	1	**11**	**10**	3	4	1	9	**17**	**8**	8	1	1	6	**16**	**9**	**43**	**1**
2020-21	10	10	9	6	**35**	**2**	6	6	10	10	**32**	**1**	4	2	2	3	**11**	**10**	**24**	**9**
2021-22	8	8	1	4	**21**	**4**	8	5	5	8	**26**	**4**	5	3	8	2	**18**	**6**	**25**	**8**
2022-23	7	7	2	2	**18**	**7**	7	2	4	7	**20**	**7**	7	5	9	7	**28**	**4**	**33**	**6**
2023-24	6	1	3	8	**18**	**7**	1	1	7	4	**13**	**9**	9	8	10	9	**36**	**1**	**36**	**4**

Sources: Computed