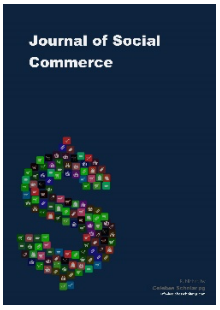

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An Analytical study of liquidity and assets management ratio of selected automobile company in India

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Abstract

The primary objective of this research is to assess the liquidity and asset management positions of selected vehicle manufacturers and to give recommendations for improving their liquidity and asset management positions. The current research spans five years, from 2015-2016 to 2019-2020. Three organizations were chosen for this research, and five ratios were calculated: the current ratio, the liquidity ratio, the working capital turnover ratio, the total asset turnover ratio, and the fixed asset turnover ratio. ANOVA was employed to test the hypothesis. The research's principal results reveal that there is no statistically significant variation in the different asset management and liquidity ratios of chosen vehicle businesses during the study period. According to data interpretation, the comparison of all the selected three automobile industry's ratios indicates that Maruti Suzuki Ltd. is in a better position than the other selected automobile companies, as its average of the selected ratios is 12.85, which is higher than the other selected automobile companies. Thus, Maruti Suzuki Ltd. outperforms the other automotive manufacturers.

Introduction

Liquidity is a term that refers to the ability of an asset or security to be converted into immediate cash without impairing its market value. While physical, cash is the most liquid asset. In general, items with reduced liquidity fall into two categories: market liquidity and accounting liquidity. Liquidity is a term that refers to the quantity of money that is readily accessible to pay debts or invest. It reflects the accessible liquidity and the ease with which a financial asset or security may be converted to cash without considerable loss of value. Liquidity is critical since it demonstrates a company's ability to satisfy its financial commitments and unforeseen charges (Owolabi & Obida, 2012; DeAngelo et al., 2002). Asset management is a collection of measures that indicate how well a business uses or manages its assets in order to generate

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money. These ratios enable a company's stakeholders to assess the efficiency and effectiveness of its management. Typically, asset management ratios take into account just two variables: a company's assets and revenues. Due to the fact that businesses come in a variety of shapes and sizes, there are also a variety of different ratios for various assets.

Automobile industry

The car business in India is one of the country's main sectors and a significant contributor to the country's GDP. It was in 1991 that the Indian car industry got its start, thanks to the government delicensing the sector and subsequent openness of the industry to 100 percent foreign direct investment (FDI). Since then, other significant multinational corporations have established operations in India, increasing the country's car manufacturing from 2 million in 1991 to 9.7 million in 2006. In terms of the year 2026, India is predicted to surpass the United States as the world's biggest automobile market. The electric vehicle industry is predicted to increase at a compound annual growth rate (CAGR) of 44 percent between 2020 and 2027, reaching annual sales of 6.34 million units by 2027. By 2030, the electric vehicle sector would have generated five crore direct and indirect employment.

Review of literature

Suresh and Krishnan's (2018) study "Asset-Liability Management as a Risk Management Tool in Commercial Banks in India" demonstrated that asset and liability management provide solutions to a variety of issues faced by banks. A test was used to analyze the asset and liability management position in commercial banks. When a bank's maturing obligations exceed its maturing assets, the bank's net interest margin or earnings declines in a rising interest rate environment, while revenue increases in a falling interest rate environment.

Chakraborty and Mohapatra (2009) focused on asset and liability management as a component of the entire risk management system in their paper "An Empirical Study of Indian Banks' Asset Liability Management Approach." Correlation and multiple regression analysis were utilized in the research, which included 10 banks. Asset and liability management include the management of liquidity risks, market risks, capital planning, and profit planning.

Trivedi (2015) examined the management of working capital in seventeen major automobile manufacturing units in India over a 15-year period from 1999-2000 to 2013-2014. Five were in the commercial vehicle sector, three were in the passenger car and multi utility vehicle sector, and nine were in the two and three wheeler sector. Discriminant analysis was used to analyze the operational and sales needs.

Bagchi et al. (2012) did a research on working capital management and asset management in India's fast moving consumer goods (FMCG) industry. The research spanned a ten-year period from 2000-2001 to 2009-2010 and was based on a sample of ten fast-moving consumer goods (FMCG) corporations. The study's objective was to ascertain the effect of working capital and its components on asset management.

Bhunia and Khan (2011) did a research on the "Efficiency of Indian steel firms' liquidity management." The Keswick model was used to compare select small, medium, and big steel businesses using different ratios and to determine the cash conversion cycle's determinates. The research revealed that the size of the businesses was critical in influencing the working capital management efficiency.

Kumar and Rahman (2016) conducted an empirical research on the "Buyer-supplier relationship and supply chain sustainability: the Indian car sector." The Indian car industry has established itself as a manufacturing base, and several joint ventures with international partners

have been established in India. According to the swot analysis, there are several challenges that the automobile industry faces, including the entry of innovative key features such as electrically controlled mechanisms, enhanced driving control, and soft-feel interiors, as well as future priorities such as fuel efficiency, emission reduction, safety, and durability.

Research Methods

The research uses secondary data from published annual reports of chosen firms such as Maruti Suzuki Ltd., Force Motors Ltd., and Hindustan Motors Ltd., as well as information on the companies from different books, journals, official websites, and internet sources. Additionally, they have been employed to ensure dependability. Business basic options. This research makes use of accounting literature, annual reports, and other sources.

Results and Discussion

Current Ratio

The current ratio is a liquidity ratio that indicates a business's capacity to meet short-term commitments, defined as those due within one year. It explains to investors and analysts how a firm might utilize its present assets to service its current debt and other relevant liabilities.

Table 1. Current ratio = current assets/current liabilities

Year	Current assets	Current Liabilities	Ratio	Trends
2015-2016	112900	71495	1.58	100
2016-2017	86099	132313	0.65	41.14
2017-2018	79214	154421	0.51	32.28
2018-2019	123616	141503	0.87	55.06
2019-2020	84274	141151	0.60	37.97
Maximum	123616	154421	1.58	
Minimum	79214	79214	0.51	
Average	97220.6	128176.6	0.84	

Source: Annual Report of Maruti Suzuki 2015-16 to 2019-20

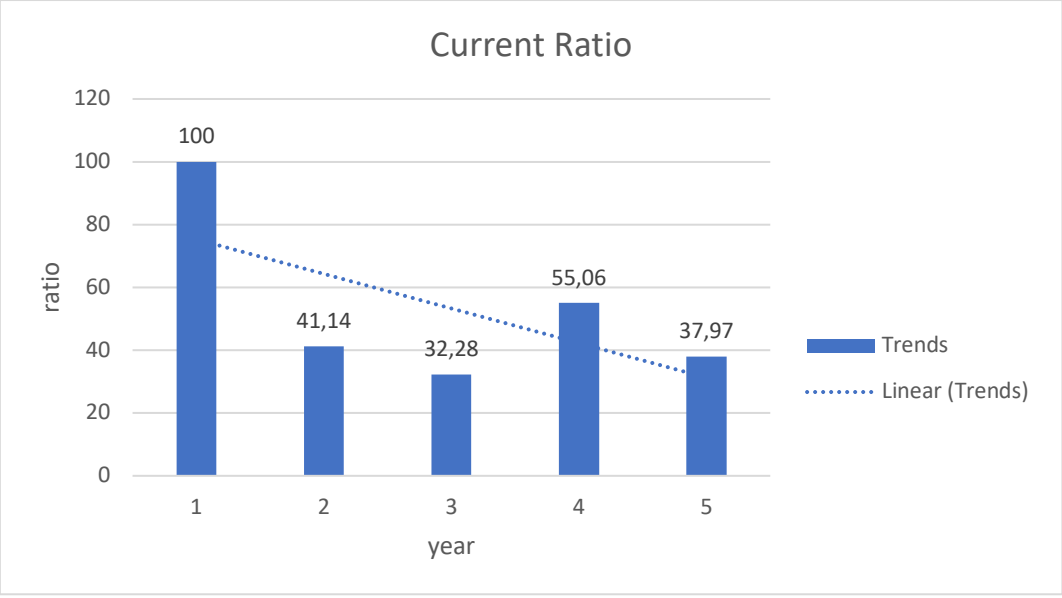

Figure 1. Current Ratio

The liquid Ratio study of current Ratio from 2015-16 to 2019-2020 is shown in Table No. 1 above. The present Ratio is fluctuating, as seen by the trend. In the 2017-2018 fiscal year, the Current Ratio is 0.51. In the fiscal year 2015-2016, the greatest current ratio was 1.58. 0.84 was shown to be the average current ratio.

In the 2015-2016 fiscal year, Maruti Suzuki's current ratio was 1.58. In the years 2016-2017, 0.65%, 2017-2018, 0.51, 2018-2019, 0.87, and 2019-2020, 0.60 percent. In the 2015-2016 fiscal year, Force Motor Ltd's current ratio is 1.70. 1.54 percent in 2016-2017. 1.64 percent for 2017-2018. 1.66 percent for 2018-2019. In Hindustan Motors Ltd., 2019-2020 is 1.12. 3.15 % is the current ratio. 2015-2016. 2.57 percent during 2016-2017. The percentages for 2017-2018 and 2018-2019 are 2.81 percent and 3.30 percent, respectively. 2.92 percent for 2019-2020. Based on data analysis, the researcher discovered that in the year 2019-2020, Hindustan Motors Ltd. has the highest current ratio of 3.30. Among the other chosen companies, this one receives the highest current ratio. In the year 2019-2020, the current ratio on force motors ltd. indicates a minimum of 1.12. Although Force Motors Ltd. has a current ratio of 1.53, it outperforms the other companies.

Liquid Ratio

Liquid Ratios are a kind of financial indicator that is used to assess a debtor's capacity to pay down existing debt commitments without having to raise additional funds. The fast ratio, current ratio, and days sales outstanding are all examples of common liquid ratios.

Table 2. Liquid Ratio = cash + short term inventors/current assets

Year	Cash + short term inventories	Current assets	Ratio	Trends
2015-2016	44698	112900	0.39	100
2016-2017	12123	132313	0.09	23.07
2017-2018	27502	154421	0.17	23.07
2018-2019	75348	141503	0.53	71.92
2019-2020	65607	154421	0.58	78.7
Maximum	75348	154421	0.53	
Minimum	12123	112900	0.09	
Average	45055.6	130793	0.35	

Source: Annual Report of Maruti Suzuki 2015-2016 to 2019-2020

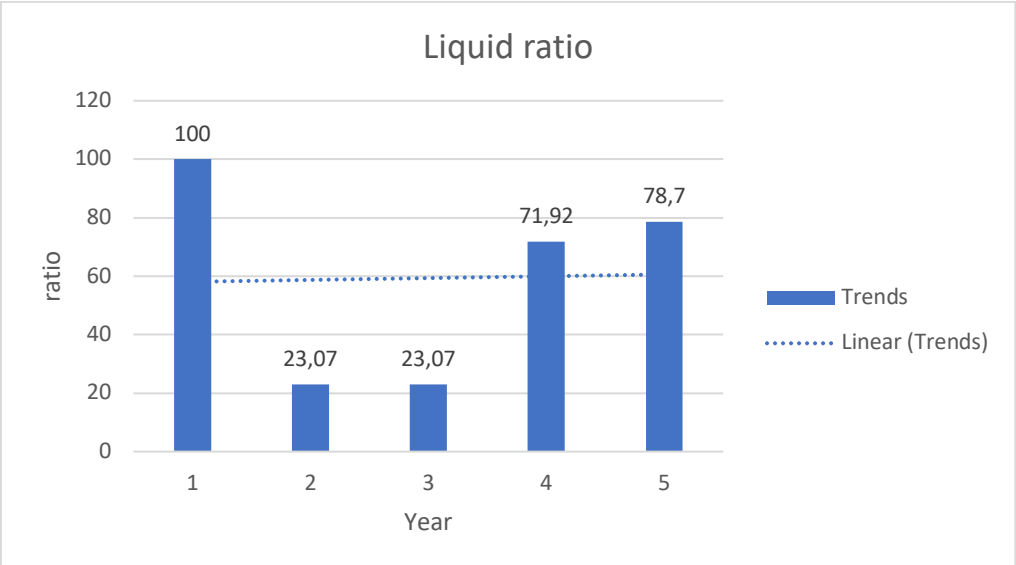

Figure 2. Liquid Ratio

In the preceding table, there is a section on Liquidity Ratio study for the years 2015-2016 to 2019-2020. The trend indicates that the Liquid Ratio is fluctuating. Minimum Liquid Ratio of 0.09 in 2016-2017. In 2019-2020, the maximum liquid ratio is 0.58. The Liquid Ratio on average is 0.35.

According to the researcher's examination of the data, Maruti Suzuki ltdmaximum .'s liquid ratio in the year 2018-2019 is 0.53. This corporation receives the highest liquid ratio in comparison to other companies. In the year 23017-2018, the average liquid ratio of Hindustan motors ltd was 0.65. In the fiscal year 2016-2017, Hindustan Motors Ltd. maintained a minimum liquid ratio of 0.57.

Asset Management

Working Capital Turnover Ratio

The working capital turnover ratio indicates how well a business utilises its working capital to produce revenues. This ratio illustrates a business's capacity to create revenue via the usage of its working capital. Working capital turnover ratio is critical for every organization, but it is particularly critical when it comes to providing an accurate picture of a company's financial health.

Table 3. Working capital turnover ratio= Net sales / Average Working capital If, average working capital= Opening Balance+ Closing Business/2

Year	Net sales	Average working capital	Ratio	Trend
2015-2016	563504	29377	19.18	100
2016-2017	772662	31972	24.16	125.96
2017-2018	819944	16981	48.28	251.71
2018-2019	860203	33683	25.53	133.1
2019-2020	756106	32868	23	120
Maximum	860203	33683	48.28	
Minimum	563504	16981	19.18	
Average	316757	28976	28.03	

Source: Annual Report Maruti Suzuki 2015-2016 to 2019-2020

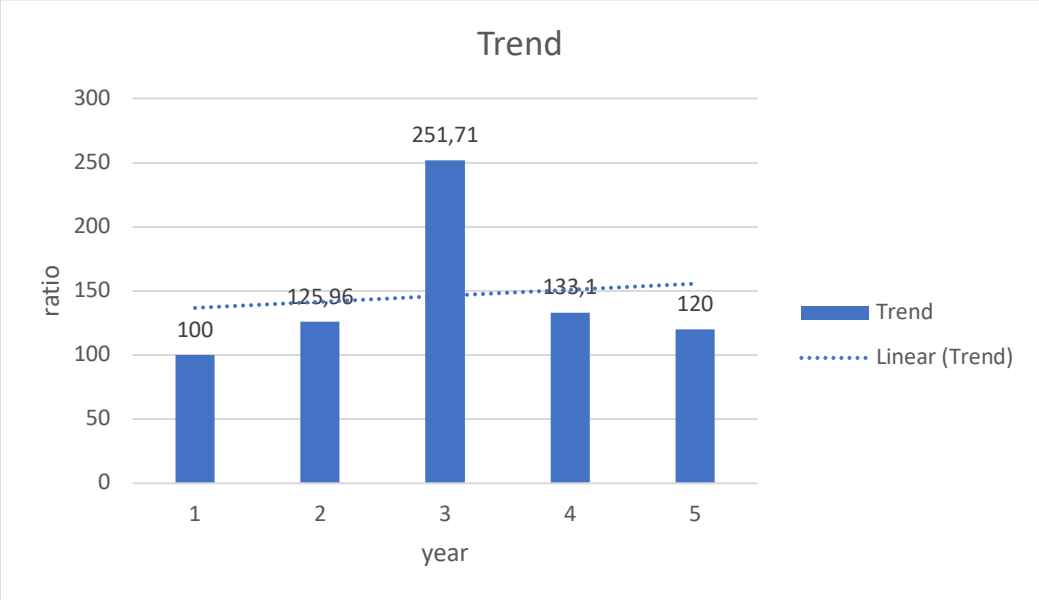

Figure 3. Trend

Working capital turnover ratios for the years 2015-2016 to 2019-2020 are shown in table no. 3 above. The graph reveals that the working capital ratio is in a volatility. Working capital ratio of 19.18 was the minimum for the period of 2015 to 2016. In the year 2017-2018, the maximum working capital ratio was 48.28. 28.03 was the average ratio.

The greatest working capital turnover ratio for Maruti Suzuki is 48.28 in the year 2017-2018, according to the data analyzed by the researcher. This business had the highest rate of employee turnover among the companies we considered. Maruti Suzuki has a working capital turnover ratio of 28.03 percent on average, according to the companies surveyed. The minimal working capital turnover ratio in 2015-2016 was 2.57, according to the working capital turnover ratio. Compared to the other companies, this one has the lowest working capital turnover ratio.

Fixed Assets Turnover Ratio

By comparing net sales to fixed assets, the fixed asset turnover ratio may be used to determine a company's return on investment in property, plant, and equipment.

Table 4. Fixed assets turnover ratio= Net sales/Fixed assets

Year	Net sales	Fixed assets	Ratio	Trend
2015-2016	563504	137747	4.09	100
2016-2017	772662	132892	5.81	142
2017-2018	819944	133590	6.13	149.82
2018-2019	860203	154078	5.58	136.37
2019-2020	756106	151685	4.98	121.7
Maximum	860203	154078	6.13	
Minimum	563504	132892	4.09	
Average	75448.38	141998.4	5.318	

Source: Annual Report of Maruti Suzuki 2015-2016 to 2019-2020

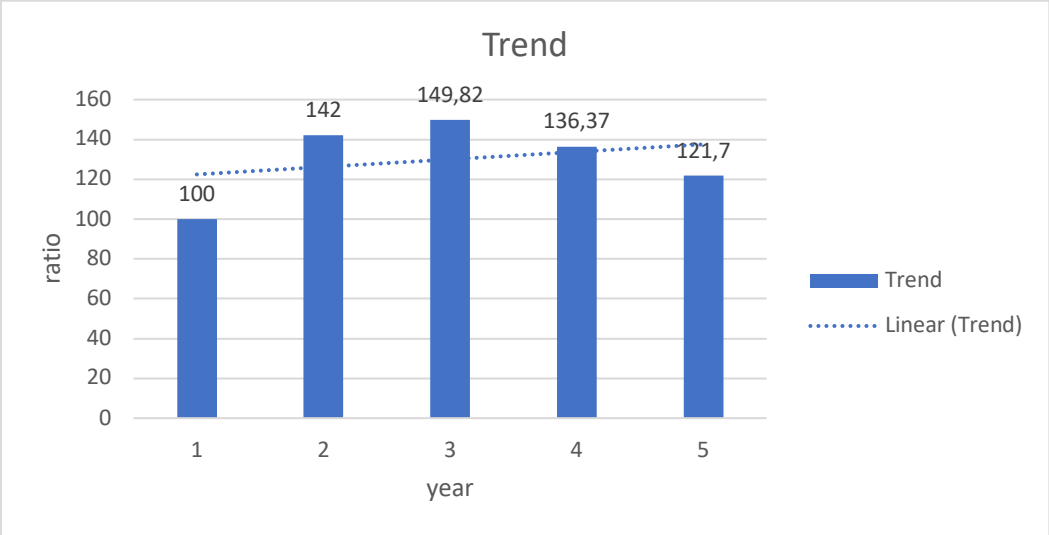

Figure 4. Trend

The asset management ratio study of fixed asset turnover ratio is shown in the preceding table no. 4, which covers the period 2015-2016 to 2019-2020. In line with the trend, the fixed assets turnover ratio is in the fluctuation percentage range. In the fiscal year 2015-2016, the minimum fixed asset turnover ratio is 4.09 percent. In the fiscal year 2017-2018, the maximum fixed asset turnover ratio is 6.13 percent. The average fixed-asset turnover ratio is 5.318, according to statistics.

According to the findings of the study, the greatest fixed assets turnover ratio for Maruti Suzuki was 6.13 in the fiscal year 2017-2018, according to data analysis. This firm generates the highest fixed asset turnover ratio of all of the companies that were considered. The average fixed assets turnover ratio for Maruti Suzuki was 5.31, making it the firm with the highest average fixed assets turnover ratio among the other companies considered. The fixed assets turnover ratio of Hindustan Motors Ltd. reveals that the company had a minimum fixed assets turnover ratio of 2.116 in the year 2017-2018. The fixed assets turnover ratio of this firm is the lowest among the companies that were chosen.

Total Fixed Assets Turnover Ratio

The asset turnover ratio measure the efficiency of a company's asset in generating revenue or sales.

Table 5. Total assets turnover ratio= Net sales/ Total assets

Year	Net sales	Total assets	Ratio	Trend
2015-2016	563504	391956	1.43	100
2016-2017	772662	419400	1.84	128.67
2017-2018	819944	593701	1.38	96.5
2018-2019	860203	629318	1.36	95.1
2019-2020	756106	625521	1.20	83.92
Maximum	860203	629318	1.84	
Minimum	563504	391956	1.20	
Average	754483.8	531979.2	1.44	

Source: Annual Report of Maruti Suzuki 2015-2016 to 2019-2020

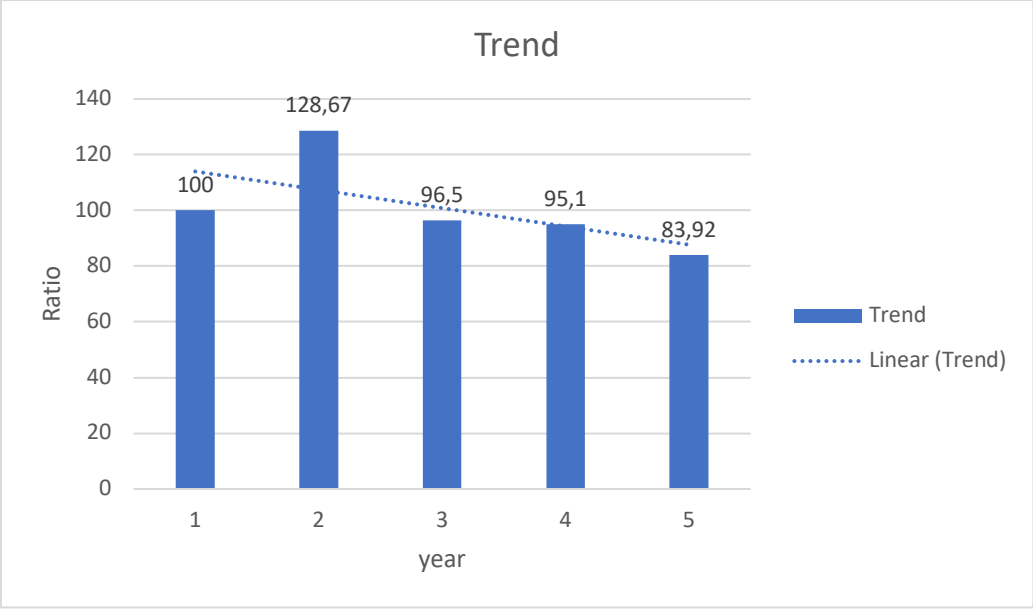

Figure 5. Trend

Table 5 Asset management analysis of total assets ratio from 2015-2016 to 2019-2020 is shown in the preceding section of the table. The trend reveals that the total assets ratio is changing, which is consistent with the data. In the fiscal year 2016-2017, the maximum total assets ratio was 1.84. In the fiscal year 2019-2020, the total assets ratio must be at least 1.20. 1.44 is the average total asset to debt ratio.

Based on the data analysis, the researcher discovered that Maruti Suzuki had the highest total assets turnover ratio in the fiscal year 2015-2016, at 2.86. This firm generates the highest total

fixed asset turnover ratio of all of the companies that were considered. The average total assets ratio for Maruti Suzuki was 1.44, making it the firm with the highest ratio among the other companies evaluated. In the year 2018-2019, the total assets turnover ratio reveals that the total fixed assets turnover ratio is at a bare minimum of 0.25. Among the firms included for this study, this one has the lowest total fixed assets earnings.

Conclusion

After the research has been concluded on the basis of available data and hypothesis testing, it has been determined that there is no difference between the current ratio and fixed asset turnover ratio of chosen car businesses throughout the study period. In other words, the level of current ratio and fixed asset turnover ratio among the chosen vehicle businesses throughout the research period were similar. The Null-Hypothesis (H0) was rejected for the other ratios, such as the working capital turnover ratio, total assets, and liquid ratio. It implies that the operating level of the chosen vehicle firms was the same throughout the research period.

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