

An Assessment of The Suitability of Financing Patterns in The Indian Automobile Industry: A Comprehensive Comparison of the Pecking Order and Trade-Off Approaches

Dr. Madhu Ruhil

Assistant Professor, Institute of Information Technology and Management, Janakpuri, New Delhi, Delhi

Dr. Aarti Dawra

Assistant Professor, Manav Rachna International Institute of Research and Studies, Faridabad, Haryana

Dr. Latika Malhotra*

Associate Professor, Institute of Information Technology and Management, Janakpuri, New Delhi, Delhi

Dr. Sonam Arora

Assistant Professor, Institute of Information Technology and Management, Janakpuri, New Delhi, Delhi

Abstract: The Pecking Order Theory and Trade-off Theory propose their distinct approaches to finance a firm's investments. The automobile industry, being a capital intensive one, also lingers extremely cautious about its strategies of employing finance for its investment. Hence, this paper is focused to empirically examine the financing pattern that is being followed by the Indian automobile industry and identify which out of the two prominent approaches best describes the financing strategies applied by the industry. The paper is descriptive and empirical research based on the panel data of 11 leading automobile companies, operating under BSE /NSE, for the period of 10 years from 2009-10 to 2018-19. It used descriptive statistics and Linear Trend Model on several leverage ratios and found that the automobile industry in India closely follows the pecking order approach and largely rely on its retained earnings.

Keywords: Automobile Industry, Capital Structure, Debt Ratios, Financing Pattern, Pecking Order theory, Trade-off theory.

Introduction

Finance and its structure play a crucial role in any company. Whenever a corporation make up an investing decision, it simultaneously makes a funding choice as well. The funding or financial formation choices are substantial administrative decisions. The financial construct represents the formation or disintegration of the funds utilized by a company. It involves both the shareholder's investment and the fixed obligation investment by the lenders. The financial structure building unveils the comprehensive investing and funding policy of a corporation which demonstrates its extent of dependence on external and internal sources of finance to finance its investments.

The automobile industry is one of the key industries in India. With strong linkages on the either side of the spectrum, the Automobile sector has been identified as the competitive benefit recipient and promising to stimulate swift progress of manufacturing sector by implementing the National Manufacturing Plan. India has become one of the most attractive destinations for foreign investment in the Auto sector. Immediately following the initiation of Make in India programme, the automobile industry witnessed a massive growth in the foreign direct investment of 164% (Neelofar Kamal, 2017).

Keeping in mind the significance of the Automobile industry in the Indian Economy, it is required to do an in-depth study of the financing pattern of the industry especially after the financial crisis of 2008-09. It would be interesting to see the changes, if any, in the nature of the automobile companies' capital structures in India, post the financial crises of 2008 (Nelson Vergas, et.al., 2015) and to identify which modern theory, out of "Pecking order theory" and "Trade-off theory", best explains the financing construct of automobile industry as these are the two most influential modern theories of capital Structure (Culata, Priska & Gunarsih, Tri, 2012). Whilst the trade-off theory suggested an ideal financial composition that can be attained by offsetting the tax saving benefits of leverage and cost of financial distress, the pecking order approach did not propose any standard structure of capital. As per the latter theory, funds should first be sought internally followed by debt financing and a fresh issue.

Review of Related Literature

Kraus & Litzenberger (1973) projected that an ideal financial composition can be realized by counterbalancing the tax saving shield of leverage and cost of financial distress, including bankruptcy. They termed this notion as “Trade-off Approach” that emphasizes that a company decides the level of fixed obligation and equity in its financing composition to achieve equilibrium between the benefits debt tax shield and agency cost and financial distress cost. Whereas based on asymmetric information, Myers & Majluf and Myers proposed the “Pecking Order Approach” that states that a company’s financing strategy signals to the public regarding the company’s performance. Thus, this notion asserts that a corporation must choose to fund its investments initially through internal funds like retained revenues. However, if the investment is higher than available funds, it should seek to finance it out of leverage. Ultimately, as a very last alternative, the enterprise should resort to fresh equity.

There are some literatures that analyzed the financing pattern of companies and industries which showed few outcomes following the notion of these theories whereas some contradicted the suggested patterns. Tripathi V. D. (2018) analysed the components of financial structure and the leverage-equity ratio of leading automobile companies from 2001 to 2014 through descriptive statistics using Mean, COV (variation coefficient) and SD (standard deviation). The study accentuated that more than 50% of the funds that have been utilized by the leading companies are through reserves and surplus, showing strong reliance on internal sources and less dependency on external sources. S. Kavitha (2014) examined the capital structure of manufacturing industries with a total of 62 companies for a tenure of 10 years from 2001-02 to 2010-11. The research highlighted that the steel industry along with the automobile industry finance their investments primarily from debt, then from reserves and surplus and lastly from share capital. Rupali. S. Ambadkar (2010) employed various debt ratios to study the trend in capital structure of 140 Listed Foreign Direct Investment companies representing 11 industries over the period of 1990-91 to 2007-2008. The study revealed that in the initial stages of liberalization, all the Debt ratios were high and then gradually showed a marked decline throughout the study period. In the later years, internal sources of funds in FDI Companies became a major source of finance, followed by Current Liabilities and Provisions. Sanjay Kumar (2009) analysed the financing pattern of sample units of twenty industries during 2001-02 to 2004-05. The study structured the financing components into four heads i.e., “Share Capital”, “Reserves and Surplus”, “Long Term Borrowings” and “Short-Term Borrowing”. The study found that profit making companies have more borrowings from financial institutions, banks and other trade creditors and attract benefit of debt tax cover.

Objectives of the Study

- a) To analyse the financing pattern adopted by automobile industry in India.
- b) To identify the modern approaches that best exhibits the financing pattern of automobile industry.

Research Methodology

A sample of eleven major companies listed on BSE/NSE has been selected taking various factors into account such as companies’ position and availability of data for the study duration. The research covered a period of ten years following the 2008-09 financial crisis i.e., from 2009-10 to 2018-19. The study did not include the latter business years i.e., 2019-20 and 2021-22, to avoid the manipulation of results due to impact of outbreak of COVID-19 pandemic on the financial figures of automobile industry. The statistics for the examination is taken from PROWESS Database retained by the “Centre for Monitoring Indian Economy” (CMIE). Following Bevan & Danbolt (2000) and Rupali. S. Ambadkar (2010), various leverage measures (as mentioned in Table 1) along with their mean, median, coefficient of variation, skewness etc. are calculated over the period of study to analyse the financing pattern of automobile industry. Further, using the Lenear Trend Model, various debt ratios are regressed on time to observe the linear trend in financing patterns of the automobile industry in India. The calculations have been made meticulously and the results are presented into four phases to accentuate each ratio in detail.

Measures of Capital Structure of Automobile Industry in India

Bevan & Danbolt (2000) observed considerable distinctions in the elements of short-term and long-term kinds of fixed liability, and contended that evaluation of capital structure is partial by not including a comprehensive analysis of

leverage. Consequently, this research will carry out the exhaustive examination of leverage supplies and incorporate a range of leverage elements to investigate the capital structure of Indian automobile sector.

- i. **TCL/TA (Total Current Liabilities/Total Assets):** In this measure, total current liabilities (TCL) include all the current liabilities and provisions. This ratio shows the proportion of total assets that is financed by the total current liabilities.
- ii. **Short Term Borrowings/Total Assets (STB/TA):** As stated in Ambadkar (2010), Bhat (1980) had argued that short-term borrowings account for a larger proportion of companies' liabilities and are continually being repaid and renewed. Also, companies using short-term borrowings and long-term borrowings have considerable substitutability for each other. Therefore, short-term borrowings should be studied separately to have a narrow picture of company's financing pattern. Following Pandey (2001), Bhaduri (2002) and Ambadkar (2010) this measure is selected to highlight the proportion of company's total assets that is financed by short term borrowed funds.
- iii. **Bank Borrowings Repayable in Current Year/Total Assets (BRCY/TA):** Bank Borrowings Repayable in Current Year represents the total amount of borrowing whether long-term or short-term that must be paid in the current year. Following the Bevan & Danbolt (2000) and Ambadkar (2010), this ratio is employed to get an idea of immediate payments that a company must make apart from the current liabilities.
- iv. **Total Current Liabilities/Net Worth (TCL/NW):** Since the short-term debts like borrowing from banks and creditors have prior and equal claim to long-term debt lenders at the time of liquidation, their relationship with the owner is important (Ambadkar, 2010). Hence, TCL/NW presents the percentage of creditors fund that a company uses against their self-generated funds.
- v. **Short Term Borrowings/Net Worth (STB/NW):** The STB/NW excludes Other Current Liabilities and Provisions and will show the proportion of Short-Term Borrowings against net worth of the shareholders.
- vi. **Long-Term Debt/Total Asset (LTD/TA):** This measure represents how much assets of the company are being financed by the long-term debt. It has been followed by Bevan & Danbolt (2000), Pandey (2001), Bhaduri (2002), Buferna et.al. (2005), De Jong et.al (2008) and Ambadkar (2010).
- vii. **Long-Term Bank Borrowings/Total Assets (LTBB/TA):** According to Bevan & Danbolt (2000) and Ambadkar (2010), this measure is important to find the role of long-term bank borrowings in financing the assets of the companies in India.
- viii. **Long-Term Debt/Net Worth (LTD/NW):** This is the most accepted measure to express the relationship between debt funds and equity funds that construct the capital structure of a company. This measure has been followed by Titman & Wessels (1988), Mittal & Singla (1992), Kantawala (1997), Kakani (1999), Garg & Shekhar (2002) and Ambadkar (2010) as an analytical tool for Capital Structure.
- ix. **Long-Term Debt/Capital Employed (LTD/CE):** This measure is used by Huang & Song (2002) and Ambadkar (2010) which analyses the proportion of long-term debt verses capital employed. Capital employed is another important indicator of any company's investment. It is the total amount of funds used for running the business with the intent to earn profits.
- x. **Long-Term Debt/Total Current Liabilities (LTD/TCL):** This ratio shows the proportion of long-term and short-term debt used by the companies. Following the Ambadkar (2010) this measure will help to represent the change in the composition of debt of the Indian automobile companies over the years.
- xi. **Total Debt / Total Assets (TD/TA):** Following Rajan & Zingales (1995), Bevan & Danbolt (2000), Bhaduri (2002), Drobetz & Fix (2005), Bhole & Mahakud (2004) and Ambadkar (2010) this measure has been selected which shows the extent to which the company's total assets are financed by total debts.
- xii. **Total Borrowing/Total Assets (TB/TA):** Here, the total borrowings include long-term and short-term borrowings. Rajan & Zingales (1995), Drobetz & Fix (2005), Buferna et. al (2005) and Ambadkar (2010) has selected this ratio as one of the measures of total debt to know the extent to which the company's assets are financed through borrowed funds.

- xiii. Total Debt/Net Worth (TD/NW):** It is also important to analyse the proportion of total debt that a company raised against the shareholders' fund. This measure will give an enhanced picture of how much total external funds has been employed by a company against its internal funds.
- xiv. Total Borrowing/Net Worth (TB/NW):** This measure shows the proportion of long-term and short-term borrowings (excluding other current liabilities and provisions) verses shareholders' fund.

Table 1: Representing Categories of Leverage Ratios Adopted

S. No.	Debt Ratios	Acronyms	Categories
1	Total Current Liabilities / Total Assets	TCL/TA	Short-term Debt Ratios
2	Short Term Borrowings / Total Assets	STB/TA	
3	Bank Borrowings Repayable in Current Year / Total Assets	BRCY/TA	
4	Total Current Liabilities / Net Worth	TCL/NW	
5	Short Term Borrowings / Net Worth	STB/NW	
6	Long-Term Debt / Total Asset	LTD/TA	Long-term Debt Ratios
7	Long-Term Bank Borrowings / Total Assets	LTBB/TA	
8	Long-Term Debt / Net Worth	LTD/NW	
9	Long-Term Debt / Capital Employed	LTD/CE	
10	Long-Term Debt / Total Current Liabilities	LTD/TCL	
11	Total Debt / Total Assets	TD/TA	Total Debt Ratios
12	Total Borrowing / Total Assets	TB/TA	
13	Total Debt / Net Worth	TD/NW	
14	Total Borrowing / Net Worth	TB/NW	

Results and Discussion

1. Descriptive Analysis of Debt Ratios of Automobile Industry

Table 2 encapsulates the statistics for the different leverage measures for the automobile sector in India. As reflected in the table, 34% of the total assets are financed with Total Current Liabilities (TCL/TA), which includes only 8.5% contribution by short-term borrowings (STB/TA), and 11.5% of the total assets are financed through long term debt, which includes only 6% contribution by long term bank borrowing (LTBB/TA). However, LTBB/TA ratio shows maximum variability in relation to mean as indicated by COV of 105.3%. This indicates that 45.7% contribution to the total assets of the automobile industry is being made by external finance (TD/TA) and the rest 54.3% is from internal funds as shown in Figure 1.

Short-term borrowings plus part of long-term borrowing repayable in the current year (BRCY/TA), giving the idea of immediate payments that the industry bears in a year, is 4.2% of the total assets. The contribution of long-term debt to capital employed as indicated by LTD/CE ratio emerged only 19%, the rest being made by shareholders' funds. Ratio of long-term borrowings with total current liabilities (LTD/TCL), which shows the debt composition, indicates that LTD is only 34% of total current liabilities.

The analysis of the ratios between debt and net worth shows that the total debt of the automobile industry is 104.6% of its net worth, out of which total current liabilities contribute 72.4% and the rest 27.6% are contributed by long-term debts. In comparison with the shareholders' fund, total borrowings are only 25% of the net worth of which short-term borrowings contribute almost 31% and the remaining 69% are contributed by long-term borrowings.

The median values of the short-term debt ratios follow their mean value closely. Further the coefficient of variance (COV) reveals large variations in LTBB/TA, showing the possibility of fluctuations. Lower variability was seen in the case of TCL/TA, TCL/NW, LTD/TA, LTD/NW, LTD/CE, LTD/TCL, TD/TA and TD/NW which makes these ratios the most representative measure of capital structure for the automobile industry. The distribution of various debt ratios for the industry analyzed within the 10-year period is non-symmetric since there is no ratio with a skewness value of zero. The mean values of most of the debt ratios exceed the median values; hence they have a positive skewness and are skewed to the right except for TCL/TA, which has a negative skewness (skewed to the left).

Table 2: Representing the Debt Ratios of the Automobile Industry

Debt Ratios	Mean	Median	SD	COV	Skewness	Maximum	Minimum	N
TCL/TA	0.341	0.353	0.030	0.089	-0.288	0.380	0.301	11
STB/TA	0.029	0.026	0.009	0.326	0.348	0.045	0.017	11
BRCY/TA	0.042	0.035	0.013	0.304	0.740	0.061	0.030	11
TCL/NW	0.757	0.745	0.138	0.183	0.542	0.995	0.595	11
STB/NW	0.077	0.071	0.028	0.360	0.380	0.124	0.042	11
LTD/TA	0.115	0.108	0.025	0.214	1.440	0.168	0.092	11
LTBB/TA	0.007	0.006	0.008	1.053	1.338	0.025	0.000	11
LTD/NW	0.289	0.274	0.082	0.285	1.489	0.467	0.221	11
LTD/CE	0.187	0.173	0.043	0.230	1.262	0.269	0.150	11
LTD/TCL	0.339	0.310	0.086	0.253	2.382	0.563	0.268	11
TD/TA	0.457	0.461	0.050	0.110	0.217	0.529	0.400	11
TB/TA	0.095	0.083	0.036	0.381	1.562	0.178	0.062	11
TD/NW	1.046	1.022	0.216	0.206	0.832	1.409	0.823	11
TB/NW	0.249	0.229	0.096	0.388	1.278	0.458	0.151	11

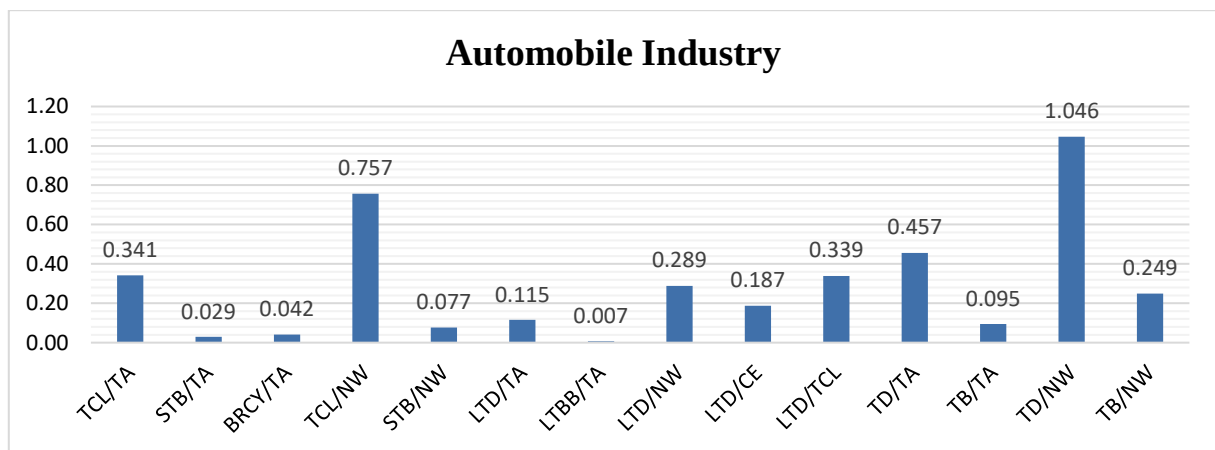


Figure 1: Representing the Debt Ratios of the Automobile Industry

2. Aggregate Financing Mix Adopted by Automobile Industry

Table 3 and Figure 2 represent the aggregate financing pattern adopted by the automobile industry to finance its total assets over the years. The contribution of the Shareholders' Fund towards the financing mix has shown a gradual increase from 43% in 2009-10 to 58% in 2018-19. Whereas the contribution of long-term debt in financing the company's assets has gradually decreased after 2010-11 from 20% to 13.16% in 2018-19. A consistent decrease in the contribution of short-term debt funds, represented by TCL, is witnessed after 2012-13 from 35% to 28% in 2018-19. However, its contribution seemed significant in financing the total assets of the industry. This shows that the automobile industry heavily depends on shareholders' funds and then on short-term debt funds for financing its assets.

Table 3: Representing the Financing Mix of the Automobile Industry

Financing Mix	In Percentage									
	Mar-10	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19
SHF/TA	43.00	44.93	45.50	48.42	49.60	49.60	55.82	56.08	56.01	58.34

LTD/TA	19.91	20.18	17.26	16.69	17.63	17.41	15.55	15.19	12.90	13.16	16.59
TCL/TA	37.09	34.89	37.24	34.89	32.77	33.00	28.63	28.74	31.08	28.49	32.68
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

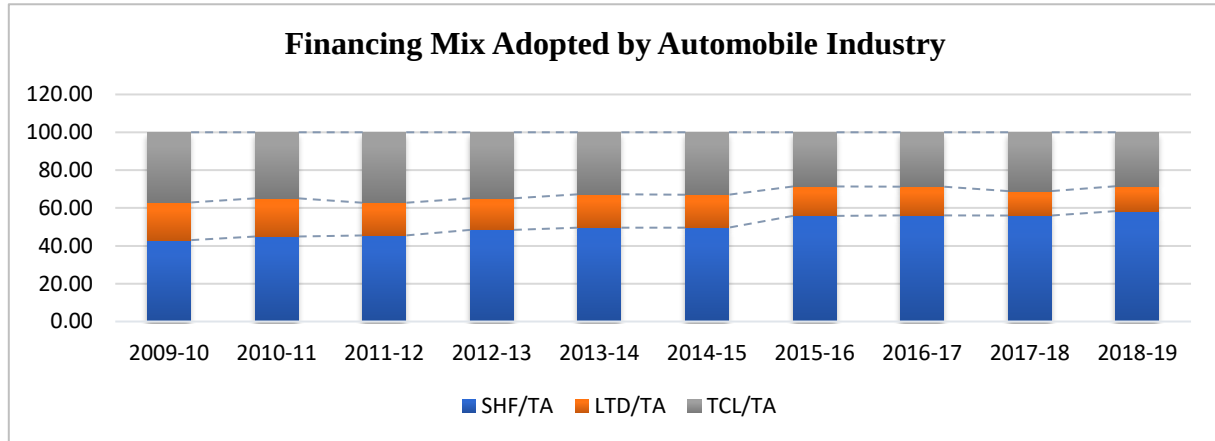


Figure 2: Representing the Financing Mix of the Automobile Industry

3. Share Capital to Reserve & Surplus Ratio and Retention Ratio of Automobile Industry

To identify the contribution of each component of shareholders' funds in financing the total assets of the industry, an extensive analysis of the industry's share capital to reserve & surplus ratio, and retention ratio are undertaken. It is evident from Table 4 that a major part of total assets in the automobile industry is financed by Shareholders' funds. The Shareholders' fund has two major components including Share Capital and Reserves & Surplus. To get a clear picture of the financing pattern of the automobile industry, it is important to segregate these two components. The SC/R&S ratio gives a clear picture of the relationship between the two variables. According to the analysis, the ratio of share capital is way less than reserves & surplus and a marked increase can be seen in the reserves & surplus over the years. This is the result of a high retention ratio as highlighted in Figure 3. High retention ratio results in greater share of internal funds which makes it clear that most of the total assets of automobile companies are financed through retained earnings.

Table 4: Representing Retention Ratio and SC/R&S Ratio of Automobile Industry

	Mar-10	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mean
SC/R&S	0.058	0.053	0.047	0.046	0.039	0.034	0.027	0.023	0.022	0.019	0.04
Retention Ratios	0.652	0.348	0.654	0.502	0.598	0.760	0.831	0.735	0.738	0.748	0.66

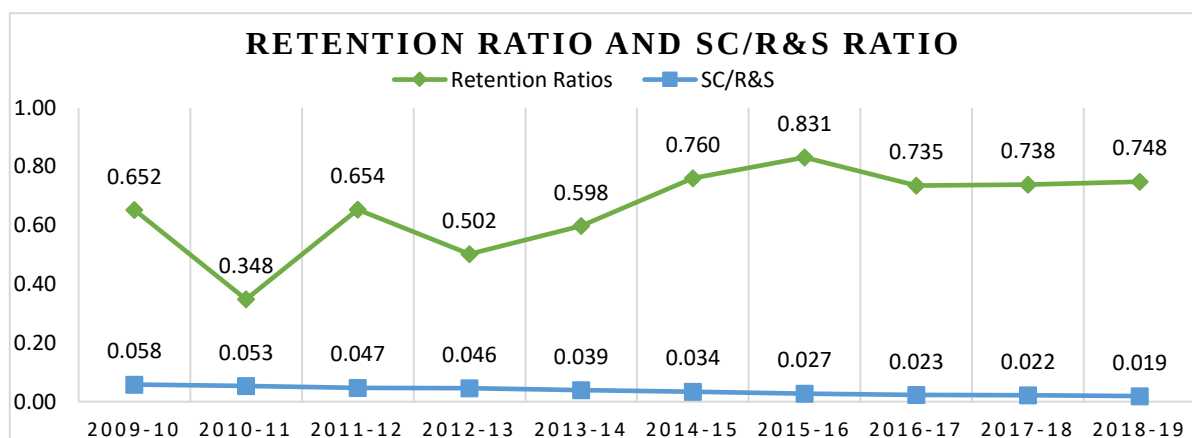


Figure 3: Representing Retention Ratio and SC/R&S Ratio of Automobile Industry

After analysing the post 2008-09 recession period, the study found that the automobile industry in India relies more on internal funds to finance its investments. The industry keeps a high retention ratio which becomes the major source of internal funds. Residual contribution in the aggregate assets is being made by short-term debt funds and the least contribution is of long-term debt funds. This also reveals that the automobile industry in India follows the pecking order theory thereby seeking inner capital resources initially pursued by debt and lastly a fresh equity issuance. The results are consistent with the results of Tripathi Vibha Deepakkumar (2018), Bhattacharjee et.al., (2015) and Rupali. S. Ambadkar (2010); and are varying with S. Kavitha (2014) and Sanjay Kumar (2009).

4. Analysis of Time Trend in Capital Structure of Automobile Industry

In this section, time trends in various debt ratios of the automobile industry during the study period have been studied with the help of the Linear Trend Model (The Simple Linear Regression equation). The industry taken in the study is capital intensive and requires heavy investment on the part of its expansion. It plans its investment either through internal or external financing, with this analysis it can be made clear how the industry finances its investments. Time trend analysis is carried out to test whether Debt ratios of the automobile industry in India exhibit a significant linear trend. Following Rupali. S. Ambadkar (2010), various debt ratios are regressed on time (dummy time period) to observe the linear trend in financing patterns of the automobile industry in India. Mathematically, the regression model can be expressed as:

$$\text{Debt Ratios} = \alpha + \beta * \text{Time (in years)} + \epsilon_t$$

Where, “ α ” is the intercept and “ β ” is the slope coefficient, which indicates the trend per year. The null hypothesis assumed in the regression analysis is mentioned below:

H₀₁: “There is no significant linear trend in TCL/TA ratio of the automobile industry over a period of study”

H₀₂: “There is no significant linear trend in STB/TA ratio of the automobile industry over a period of study”

H₀₃: “There is no significant linear trend in BRCY/TA ratio of the automobile industry over a period of study”

H₀₄: “There is no significant linear trend in TCL/NW ratio of the automobile industry over a period of study”

H₀₅: “There is no significant linear trend in STB/NW ratio of the automobile industry over a period of study”

H₀₆: “There is no significant linear trend in LTD/TA ratio of the automobile industry over a period of study”

H₀₇: “There is no significant linear trend in LTBB/TA ratio of the automobile industry over a period of study”

H₀₈: “There is no significant linear trend in LTD/NW ratio of the automobile industry over a period of study”

H₀₉: “There is no significant linear trend in LTD/CE ratio of the automobile industry over a period of study”

H₁₀: “There is no significant linear trend in LTD/TCL ratio of the automobile industry over a period of study”

H₁₁: “There is no significant linear trend in TD/TA ratio of the automobile industry over a period of study”

H₁₂: “There is no significant linear trend in TB/TA ratio of the automobile industry over a period of study”

H₁₃: “There is no significant linear trend in TD/NW ratio of the automobile industry over a period of study”

H₁₄: “There is no significant linear trend in TB/NW ratio of the automobile industry over a period of study”

The results of the Linear Trend Model are represented in Table 5.

Table 5: Representing Time Trend in Capital Structure of the Automobile Industry

Debt Ratios	Linear Regression on Time Variable (Automobile Industry)						
	R2	Adj R2	Intercept	Slope	F-stats	p-value	D.W Test
TCL/TA	0.765	0.736	0.390	-0.009	26.524	0.001	1.767
STB/TA	0.493	0.429	0.041	-0.002	7.764	0.024	2.062
BRCY/TA	0.518	0.457	0.058	-0.003	8.589	0.019	1.647
TCL/NW	0.838	0.817	0.987	-0.042	41.263	0.000	1.879

STB/NW	0.548	0.492	0.115	-0.007	9.700	0.014	2.607
LTD/TA	0.759	0.729	0.154	-0.007	24.189	0.001	0.758
LTBB/TA	0.202	0.102	0.013	-0.001	2.019	0.193	2.005
LTD/NW	0.740	0.708	0.418	-0.023	22.791	0.001	0.868
LTD/CE	0.786	0.759	0.256	-0.013	29.319	0.001	0.741
LTD/TCL	0.462	0.395	0.445	-0.019	6.868	0.031	0.993
TD/TA	0.919	0.909	0.544	-0.016	91.061	0.000	1.759
TB/TA	0.753	0.722	0.151	-0.010	24.362	0.001	1.091
TD/NW	0.838	0.818	1.405	-0.065	41.324	0.000	1.350
TB/NW	0.758	0.728	0.401	-0.028	25.043	0.001	1.323

The time trend analysis revealed that in almost all the Debt ratios i.e., TCL/TA, STB/TA, BRCY/TA, TCL/NW, STB/NW, LTD/TA, LTD/NW, LTD/CE, LTD/TCL, TD/TA, TB/TA, TD/NW, TB/NW of automobile industry, a negative linear trend is observed except LTBB/TA in which no linear trend is observed as the p-value of model test is greater than 0.05 i.e., 0.193. The declining trend in the debt ratios showed that the automobile industry decreased its reliance on the debt with the passage of time. The short-term debt ratios, long-term debt ratios and total debt ratios scaled down to the total assets and net-worth, indicating that the contribution of debt towards financing the total assets of the automobile industry has considerably decreased and contribution of net-worth i.e., shareholders' fund towards financing the assets has significantly increased during the period of the study.

However, in some Debt ratios, the problem of first order autocorrelation is detected, as the Durbin Watson (D.W) statistic lies in the inconclusive area. The D.W statistic is a traditional test for detecting the presence of autocorrelation. "The limits of 'D.W' are 0 and 4 and the estimated 'D.W' value must lie within this limit. The thumb rule of this test is that if there is no serial correlation, 'D.W' is expected to be about 2. If 'D.W' is found closer to 0 then one may assume that there is evidence of positive serial correlation and if 'D.W' is closer to 4 then there is negative serial correlation (Rupali. S. Ambadkar, 2010).

Based on the results of the Linear Trend Model, the study rejects null hypotheses that no significant linear trend in Debt Ratios of the automobile industry is observed over a period of study and that the financing pattern of the industry does not change with the passage of time. Hence, the study accepts the alternative hypotheses that significant linear trends are observed in the financing pattern (debt ratios) of the automobile industry in India.

Managerial Implication

A company's value hinge on how efficiently it is managed with proper capital assortment. The study provides a comprehensive and micro examination of capital structure of Indian automobile industry that will aid the finance executives to better comprehend the nature of their financing strategies and understand how it can be efficiently managed in forthcoming prospects. Unlike other research, the present study employed fourteen indicators rather than having a single conventional indicator of capital structure i.e., Debt-Equity Ratio. It also considered "short-term debt" as an important element of capital structure that gives a comprehensive representation of the financing pattern of the Indian automobile industry and helps to understand the contribution of leverage ratios in financing their investment. Further, the study also breaks down the shareholders' funds into "share capital" and "reserves and surplus" to give a clear picture of the contribution of its each component in the industry's financing structure and ultimately will be supportive in providing directions to the automobile companies while making their future capital structure policies. At last, the study reveals that which of the two contending theories namely Trade-off Theory and Pecking Order Theory is applicable on the financing pattern of the industry so that financial executives can consider the appropriate theory's recommendations while making their financing decisions.

Conclusion

The study identified the implication of two competing approaches i.e., Pecking Order Approach and Trade-Off Approach on the financing pattern of Indian automobile industry. To understand the financing pattern of the industry, various debt ratios, categorised as Short-Term Debts, Long-Term Debts and Total Debts, were meticulously analysed using descriptive statistics and linear trend model. After analysing the post-recession period, the study found that automobile industry in India rely more on internal funds to finance its investments. The industry keeps a high retention ratio which

becomes the major source of internal funds. Residual contribution in the total assets is being made by short-term debt funds and least contribution is by long-term debt funds. The declining trend of debt ratios also confirmed that the contribution of debt in funding the total assets of the industry has significantly decreased, and contribution of net-worth has significantly increased over the 10 years study period. This eventually concludes that the automobile industry in India follows the pecking order theory thereby seeking in-house residual funds at first then by leverage and in the end through fresh equity issuance.

Limitations of the Study

The study is established on secondary data, gathered from the CMIE's PROWESS Database. The quality of the research purely centres on the accuracy and reliability of secondary data and the shortcomings of the development in the database will also apply to the data analysis. Secondly, the paper is the analysis of financing pattern of leading automobile manufacturing businesses that have been operating under BSE /NSE on the date of data collection; other companies belonging to the automobile sector like Auto Ancillary sector are not considered. Further, the sample firms chosen were restricted to eleven automobile corporations due to restrictions such as lack of continuous listing, negative net worth in some years, and inaccessibility of data relating to those organizations in the Prowess Database. Lastly, the study is confined to a period of only 10 years from 2009-10 to 2018-19.

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