

## **A Study on Determinants of Capital Structure of Victory Electric Vehicles International in India**

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### **ABSTRACT**

In this study examines the capital structure determinants of Victory Electric Vehicles International in Indian it was the rapidly growth of Indian Electric Vehicle (EV) industry. This study fully based on the secondary data for the period 2021–2025, the study analyzed various ratio analysis namely, trend analysis, and correlation analysis to assess the relationship between debt–equity structure and key financial variables such as profitability, liquidity, firm size, earnings retention, and interest coverage. The results indicate a significant shift from high leverage to internally financed growth, strongly supporting the Pecking Order Theory. Improved profitability and retained earnings played a crucial role in reducing dependence on debt. The study highlights the importance of effective capital structure management for sustaining growth and competitiveness in the evolving EV sector of the India.

### **Introduction**

In India, having the vast evolution of capital structure of Indian corporate sectors especially electronic vehicle sector and it have the vast investment plans in the electronic segment of car productions and vehicles of the Indian corporate. The determinants of capital structure of Victory Electric Vehicles International facing the external financing and composition of the debt and equity of the company during the study and also growth of sustainable industries, the Electric Vehicle (EV) sector has gained significant importance due to rising fuel costs, environmental concerns, and strong government initiatives. The Victory Electric Vehicles International operates within this rapidly expanding EV industry, which presents both growth opportunities and financial challenges. High production costs, dependence on advanced technology, and infrastructure limitations make capital structure decisions crucial for ensuring financial stability and long-term performance. Therefore, understanding capital structure dynamics in Victory Electric Vehicles International is essential for assessing its ability to sustain growth and competitiveness in the Indian EV market.

Zhang (2024)<sup>1</sup> provides a comprehensive review of empirical capital structure research across different industries, emphasizing that capital structure decisions are highly industry-specific and cannot be universally generalized. The study argues that although traditional capital structure theories such as the Modigliani Miller proposition, Trade-off Theory, and Pecking Order Theory offer valuable conceptual frameworks, their assumptions are often idealized and deviate from real-world market conditions. By synthesizing prior empirical studies, the

<sup>1</sup> Zhang, R., 2024. A review of empirical capital structure research in different industries. *Proceedings of the 6th International Conference on Global Economy and Business Management (GEBM 2024)*, Vol. 28. <https://doi.org/10.54097/n5hhnw78>.

author categorizes industries into three broad groups: capital-intensive industries, labor-intensive industries, and innovation-driven industries. The review highlights that capital-intensive industries rely more heavily on debt financing due to the availability of tangible assets as collateral, while labor-intensive industries tend to maintain conservative leverage structures to manage operational risk. In contrast, innovative industries prefer equity-based financing to mitigate financial distress and maintain flexibility amid high uncertainty and growth potential. The study further demonstrates that industry-specific economic characteristics, operational risks, asset structure, and growth opportunities play a decisive role in shaping firms' capital structure strategies. Overall, the review underscores the importance of contextualizing capital structure decisions within industry dynamics and provides strong justification for sector-wise empirical investigations in capital structure research.

Raja Rehan et al. (2023)<sup>2</sup> conducted a comprehensive sector-wise investigation into the determinants of capital structure among Malaysian listed firms by integrating time series and panel data econometric techniques. Using a large sample of 551 firms listed on Bursa Malaysia over a 12-year period (2005–2016), the study examined key firm-specific determinants such as fixed assets, current assets, return on equity, earnings per share, firm size, and total assets in explaining variations in the debt–equity ratio. The study is distinctive in its methodological robustness, as it employed Multiple Regression Analysis (MRA), Autoregressive Distributed Lag (ARDL) models, static panel models, and dynamic panel estimation using the Generalized Method of Moments (GMM). The findings revealed that total assets emerged as the most persistent determinant of capital structure across sectors, particularly in the construction and property sectors, irrespective of the estimation technique used. Moreover, the significant role of asset tangibility and the presence of speed of adjustment provide strong empirical support for the Dynamic Capital Structure Theory and the Dynamic Trade-off Theory, suggesting that capital structure decisions are not static but adjust over time toward an optimal target. The study contributes to the literature by highlighting sector-specific heterogeneity and emphasizing the superiority of dynamic models over traditional static approaches in explaining capital structure behavior in emerging markets like Malaysia.

Fahad Ahmed et al (2024)<sup>3</sup> Capital structure has been one of the most extensively studied areas in corporate finance, as it plays a critical role in determining firm value, profitability, and financial stability. Modigliani and Miller (1958) laid the foundation of capital structure theory by proposing that, under perfect market conditions, capital structure is irrelevant to firm value. However, their later work (1963) acknowledged the role of corporate taxes, highlighting the tax advantage of debt and forming the basis for the Trade-off Theory, which argues that firms balance the tax benefits of debt against bankruptcy and financial distress costs to determine an optimal capital structure. The Pecking Order Theory, proposed by Myers and Majluf (1984), suggests that firms follow a hierarchical order of financing,

<sup>2</sup>Rehan, R., Abdul Hadi, A. R., Hussain, H. I., Hye, Q. M. A., & (2023). *Capital structure determinants across sectors: Comparison of observed evidences from the use of time series and panel data estimators*. Heliyon, 9, e19618. Elsevier. Retrieved from Science Direct. <https://doi.org/10.1016/j.heliyon.2023.e19618>

<sup>3</sup>Ahmed, F., Rahman, M. U., Rehman, H. M., Imran, M., Dunay, A., & Hossain, M. B. (2024). *Corporate capital structure effects on corporate performance pursuing a strategy of innovation in manufacturing companies*. Heliyon, 10(3), e24677. Elsevier. Retrieved from Science Direct. <https://doi.org/10.1016/j.heliyon.2024.e24677>

preferring internal funds first, followed by debt, and issuing equity as a last resort due to information asymmetry. Several empirical studies have supported this theory by documenting a negative relationship between profitability and leverage. Rajan and Zingales (1995) found that profitable firms in G7 countries tend to use less debt, confirming the preference for internal financing. Similarly, Frank and Goyal (2003) observed that firms with higher retained earnings rely less on external borrowings, reinforcing the pecking order behavior.

Abbas et al. (2024)<sup>4</sup> examined the relationship between capital and profitability by incorporating the moderating role of economic freedom in the context of U.S. banks. Using annual data spanning from 2002 to 2022 and applying the Generalized Method of Moments (GMM) framework, the study revealed that bank capital, when considered independently, has a negative impact on profitability. However, this adverse relationship turns positive in the presence of higher levels of economic freedom, indicating that economic freedom plays a significant moderating role in enhancing bank performance. The findings support both the financial stability and regulatory hypotheses, emphasizing that liberalized economic environments can mitigate the negative effects of higher capital requirements. The study also highlights heterogeneity across bank-specific characteristics such as capitalization and liquidity, and confirms robustness across alternative profitability measures. Overall, the research provides valuable insights for policymakers and banking professionals by stressing the importance of balancing capital regulation with economic freedom to sustain profitability and financial stability.

### **Objectives of the Study**

1. To identify the determinants of capital structure in Victory Electric Vehicles International.
2. To analyze the role of profitability, growth, liquidity, and firm size in influencing capital structure decisions of Victory Electric Vehicles International.

### **Methodology**

The present study determinants of capital structure of Victory Electric Vehicles International in India. The study fully based on these secondary data, collected from the published annual reports, of the Victory Electric Vehicles International Company and financial statements, and official company records of Victory Electric Vehicles International. And other data has been collected from the journals, books, government publications, and online databases related to the Electric Vehicle industry in India and capital structure of the Indian electronic vehicle. The study duration of the study covers a period of five years 2021 to 2025 and it analyze trends and changes in the company's capital structure. The financial ratios such as debt equity ratio, interest coverage ratio, return on assets, and return on equity are used to evaluate the company's financial position and performance. To understand the pattern and movement of financial variables, trend analysis and ratio analysis has been evaluated during the study.

<sup>4</sup> Abbas, F., Ali, S., Woo, K. Y., & Wong, W.-K. (2024). Capital and profitability: The moderating role of economic freedom. *Heliyon*, 10(16), e35253. Elsevier (ScienceDirect).  
<https://doi.org/10.1016/j.heliyon.2024.e35253>

Under this study the Victory Electric Vehicles International determinants of capital structure of the company and it frame the dept equity ratio has been selected dependent variable of the company and profitability of the company, size of the Victory Electric Vehicles International, which has been measured by the total volume of sales or number of employees, based in this study total volume of production of the study has selected, liquidity of the company has current assets and current liability of the company, assets tangibility of the company has considered the total assets by fixed assets proportion of the company, the growth of the company has selected it has measured by the revenue of the company and total assets of the company, business risk of the company are selected Earnings before interest and tax by the standard deviation of the company, retained earnings of the by the net profit of the company, interest coverage of the company EBIT by the Interest Expenses, book value of the shares and market price of the company, total number of volume of sales and total assets of the company has been evaluated during the study.

**Table 1: Determinants of Capital Structure Victory Electric Vehicles International**

Sl. No.	Determinant (Independent Variable)	Proxy / Measurement	Formula / Indicator Used	Expected Relationship
1	Profitability	ROCE	EBIT / Capital Employed	Negative (-)
2	Firm Size	Enterprise Value / Total Assets	Log of Total Assets / EV	Positive (+)
3	Liquidity	Current Ratio	Current Assets / Current Liabilities	Negative (-)
4	Asset Tangibility	Fixed Assets Ratio	Fixed Assets / Total Assets	Positive (+)
5	Growth Opportunities	Revenue / Asset Growth	% Change in Revenue	Negative (-)
6	Business Risk	EBIT Variability	Standard Deviation of EBIT	Negative (-)
7	Earnings Retention	Retention Ratio	Retained Earnings / Net Profit	Negative (-)
8	Coverage Capacity	Interest Coverage Ratio	EBIT / Interest Expense	Positive (+)
9	Market Valuation	Price-Book Value Ratio	Market Price / Book Value	Negative (-)
10	Operational Efficiency	Asset Turnover Ratio	Sales / Total Assets	Positive (+)

Source: Computed primary data.

The determinants of capital structure of the victory Electric Vehicles International was shows that the capital structure and financial theories such as the Pecking Order Theory, Trade-off Theory, and Agency Theory. The profitability ratio, liquidity Ratio, earnings retention ratio, growth opportunities of the Electric Vehicles International, business risk of the Electric Vehicles International, and market valuation are shows that the negative relationship with capital structure of the Electric Vehicles International, it denoted that the capital structure of

the Electric Vehicles International, indicating a preference for internal financing and equity over debt. Firm size, asset tangibility, coverage capacity, and operational efficiency were expected to have a positive relationship with capital structure, as larger, efficient firms with tangible assets and strong repayment capacity can sustain higher levels of debt. Overall, the selected variables was shows that the theoretically sound and appropriate for examining capital structure decisions of the victory Electric Vehicles International.

The correlation matrix has been selected during the study was the relationship of the capital structure of the victory Electric Vehicles International and six variables has been selected during the study which is denoted that the capital structure of the company whether influenced by the individually or jointly in to the capital structure of the company during the study period.

**Table 2: Correlation Matrix**

Variables	Debt–Equity	Profitability (ROCE)	Liquidity	Interest Coverage	Retention Ratio	Firm Size (EV)
Debt–Equity Ratio	1.000	−0.940	0.317	−0.917	−0.906	−0.411
Profitability (ROCE)	−0.940	1.000	−0.056	0.814	0.971	0.671
Liquidity (Current Ratio)	0.317	−0.056	1.000	−0.164	0.051	0.471
Interest Coverage Ratio	−0.917	0.814	−0.164	1.000	0.815	0.228
Retention Ratio	−0.906	0.971	0.051	0.815	1.000	0.735
Firm Size (EV)	−0.411	0.671	0.471	0.228	0.735	1.000

Source: computed from primary data

The correlation matrix reveals a strong relationship between the Debt–Equity Ratio and key financial variables. A very strong negative correlation exists between debt–equity and profitability (−0.940), indicating that higher profitability significantly reduces dependence on debt, thereby supporting the Pecking Order Theory. Similarly, the strong inverse relationship between debt–equity and interest coverage ratio (−0.917) suggests that as firms improve their ability to service interest obligations, they consciously reduce leverage. The negative association between debt–equity and retention ratio (−0.906) highlights retained earnings as a major internal financing source. Firm size shows a moderate negative relationship with leverage, indicating that growth is supported more by internal funds than debt. Liquidity shows a weak positive correlation with leverage, suggesting partial reliance on short-term borrowings. High correlations among independent variables indicate the possibility of necessitating VIF testing or SEM justification.

The aims to analyzing the trend analysis of Victory Electric Vehicles International is to evaluate the year based increasing and decreasing of variables of financial shows that entire study period from 2021 to 2025 and to explain the variations of in financial passion of the

company and it shows that impacted variables of the Electric Vehicles International of the capital structure. The Trend analysis realize that frame the patterns in profitability, liquidity, leverage, operational efficiency, and market performance, of the examine the whether the Electric Vehicles International having the growth, stability, or deterioration during the study. The examination of the trends in ratios was the Return on Capital Employed, Debt–Equity Ratio, Interest Coverage Ratio, and Asset Turnover Ratio, the study assesses the firm’s having the strong ability to generate internal funds of the victory Electric Vehicles International, service debt obligations, and optimize its financing mix of the victory Electric Vehicles International. And more on the trend analysis to capture the financial transformation of Victory Electric Vehicles International faced the loss-making and highly leveraged position to more profitable and internally financed owned funds of the Victory Electric Vehicles International. It provides the optimal support of the support for understanding the dynamic relationship between profitability and leverage, and validates the relevance of capital structure theories such as the Pecking Order Theory in explaining financing behavior of the Victory Electric Vehicles International. Overall, trend analysis serves as a crucial analytical tool to evaluate financial sustainability of the Victory Electric Vehicles International, risk management of the Victory Electric Vehicles International, and the long-term capital structure strategy of Victory Electric Vehicles International during the study period.

**Table 3: Trend Analysis of Financial Performance (2021–2025)**

Particulars	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25
Return on Capital Employed (%)	6.14	1.63	6.45	19.39	18.45
Return on Net Worth (%)	-24.34	-25.67	5.32	36.97	23.96
Net Profit Margin (%)	-5.21	-4.03	0.68	7.10	6.33
Current Ratio (X)	0.93	0.98	0.98	0.97	0.96
Quick Ratio (X)	0.70	0.74	0.71	0.69	0.68
Debt–Equity Ratio (X)	2.08	3.13	2.77	1.16	0.54
Interest Coverage Ratio (X)	4.31	2.98	3.57	6.56	12.27
Asset Turnover Ratio (X)	0.16	0.23	1.04	1.24	1.17
Inventory Turnover Ratio (X)	0.91	1.59	5.50	5.63	9.25
Earnings per Share (₹)	-36.99	-29.88	6.29	81.95	78.80
Price–Book Value Ratio (X)	2.09	3.73	3.55	4.48	2.14

Source: computed primary data

The trend analysis indicates a significant improvement in the financial performance of the firm during the study period of the Victory Electric Vehicles International. Profitability improved substantially from 2023 onwards, with ROCE increasing sharply and remaining strong through 2025, reflecting an operational turnaround of the Victory Electric Vehicles International. The liquidity position remained below the ideal benchmark of the Victory Electric Vehicles International; however, its stability suggests efficient working capital management rather than financial distress of the company. The Debt–Equity Ratio declined sharply from 3.13 in 2022 to 0.54 in 2025, indicating a strategic deleveraging policy supported by improved profitability and retained earnings of the Victory Electric Vehicles International. The interest coverage ratio improved significantly, demonstrating enhanced debt-servicing capacity of the Victory Electric Vehicles International. Operational efficiency improved markedly, as seen from the rise in asset and inventory turnover ratios. Market

indicators also improved, with earnings per share turning positive and peaking in 2024, while the price–book value ratio showed a correction in 2025 after strong performance of the Victory Electric Vehicles International.

### Conclusion of the Study

The empirical findings clearly indicate that the firm has transitioned from a highly leveraged and loss-making position to a profit-driven and internally financed structure. Capital structure decisions are primarily influenced by profitability, earnings retention, and interest coverage capacity of the Victory Electric Vehicles International. The results strongly support the Pecking Order Theory, with partial support for the Trade-off Theory, confirming that internal financing and improved debt-servicing ability have played a decisive role in reducing financial leverage over the study period of the Victory Electric Vehicles International.

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