



## OPTIMAL CAPITAL STRUCTURE: EVALUATING THE DETERMINANTS AND TRENDS IN THE AUTOMOBILE INDUSTRY IN PAKISTAN

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### ABSTRACT

This study focuses on evaluating the determinants and trends in the capital structure of the automobile industry, with a specific emphasis on the case of Toyota Motors and Atlas Honda. The research highlights the significance of adopting an optimal capital structure to mitigate risks and prevent potential damages, such as insolvency resulting from the inability to repay debt. The study emphasizes the need for firms to carefully determine the appropriate level of debt financing that aligns with their unique circumstances. Debt financing offers advantages such as easier accessibility and lower cost of capital compared to equity financing, along with the benefit of a tax shield. However, firms must consider the financial costs associated with debt, particularly the interest payments required to service borrowed funds. On the other hand, equity financing entails its own cost in the form of the cost of equity, which includes the opportunity cost. By analyzing the financial data of Toyota Motors and Atlas Honda, it was observed that these companies maintained a debt-to-capital ratio of less than 50%. This suggests that they rely less on external sources for fund generation. The findings support the hypothesis that a capital structure with less than 50% debt is preferable for firms. Consequently, firms should carefully evaluate their debt-to-equity ratio and strive to maintain a balance that aligns with their financial goals and risk tolerance. This research provides valuable insights into the determinants and trends in capital structure within the automobile industry. It underscores the importance of making informed decisions regarding debt and equity financing and highlights the need for ongoing evaluation and optimization of capital structure to enhance financial stability and maximize long-term profitability.

**Keywords:** capital structure, debt financing, equity financing, determinants, trends, automobile industry

**JEL Codes:** G20, G31

### 1. INTRODUCTION

The capital structure of a company refers to the composition of its financing, consisting of debt and equity (Myers, 2001). Companies can raise funds through equity, which involves selling shares of ownership, or through debt, which involves borrowing money. Maintaining an appropriate balance between debt and equity is crucial for achieving an optimal capital structure that enhances the performance of the organization and maximizes profits. Evaluating the capital structure involves assessing the ratio of equity capital to debt capital in a business to determine the most favorable combination of both. The traditional capital structure typically comprises two components: debt and equity. Debt can encompass various forms such as long-term loans, short-term loans, and other forms of borrowed funds, while equity includes share capital, common shares, and preference shares. In recent discussions, some experts argue that preference shares could be classified as part of debt due to their fixed rate of return. In practice, firms have the flexibility to choose their capital structure from a range of options. They can opt for lease financing, issue warrants, utilize convertible bonds, or enter into forward contracts. The objective is to identify capital structure arrangements that maximize the overall market value of the firm. Different theories of capital structure provide insights into the purpose of capital structure from various perspectives and offer conclusions on the impact of financial leverage. One influential theory in the field of capital structure is the trade-off theory, which suggests that companies seek to balance the tax advantages of debt financing with the costs and risks associated with debt (Myers, 2001). According to this theory, companies consider the tax shield provided by interest payments on debt, which reduces their taxable income. However, excessive debt increases the risk of

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financial distress and bankruptcy, leading to higher costs such as bankruptcy costs and agency costs. Thus, firms aim to find the optimal mix of debt and equity that maximizes the tax benefits while minimizing the associated costs.

Another prominent theory is the pecking order theory, which posits that firms prioritize internal financing sources (such as retained earnings) over external financing (such as debt or equity issuance) (Myers, 2001). This theory suggests that firms prefer to use internally generated funds first, as they are less costly and do not involve information asymmetry issues. Only when internal funds are insufficient do firms turn to external financing. As a result, the capital structure of firms tends to exhibit a pecking order, with debt issuance being the last resort. Overall, the choice of capital structure is a critical decision for companies, as it influences their financial stability, cost of capital, and ability to pursue growth opportunities. By understanding different theories of capital structure and evaluating the trade-offs between debt and equity financing, companies can strive to achieve an optimal capital structure that aligns with their financial goals and maximizes shareholder value. The acquisition of resources by a company often involves taking on debt, which represents a financial obligation that the company must repay. Debt is typically incurred to cover fixed costs or finance investments. It offers certain advantages and is often regarded as a more cost-effective option compared to equity financing. One of the key benefits of debt is its tax deductibility, as interest payments on debt can be subtracted from taxable income, resulting in lower tax obligations (Modigliani & Miller, 1963). In contrast to equity financing, which involves issuing shares of ownership, debt financing allows companies to maintain full control and ownership of their assets and operations. This aspect can be particularly appealing to companies that prefer to retain decision-making authority and avoid diluting existing ownership. Furthermore, debt financing can offer more predictable interest payments compared to dividend payments associated with equity financing, providing greater certainty for financial planning and cash flow management. However, it is important to note that excessive reliance on debt can pose risks to a company's financial stability and sustainability. High levels of debt increase the company's leverage and its vulnerability to economic downturns or unexpected events. If a company's ability to generate sufficient cash flow to cover interest payments becomes compromised, it may face financial distress or even bankruptcy. Therefore, finding the right balance between debt and equity financing is crucial in maintaining a healthy capital structure and mitigating financial risks (Jensen & Meckling, 1976; Ali, 2015; Ali, 2018; Ali and Bibi, 2017; Sajid and Ali, 2018).

Several factors influence a company's decision regarding its capital structure, including the company's industry, growth prospects, profitability, and risk tolerance. Additionally, different theories have been developed to explain the determinants of capital structure choices. The trade-off theory suggests that companies aim to strike a balance between the tax advantages of debt financing and the costs associated with debt, such as bankruptcy and agency costs (Myers, 2001). On the other hand, the pecking order theory proposes that companies prioritize internal financing sources, such as retained earnings, over external financing options like debt or equity issuance (Myers & Majluf, 1984). Overall, the choice between debt and equity financing is a critical decision for companies, as it affects their financial structure, risk profile, and long-term sustainability. By considering the advantages and disadvantages of debt financing, companies can assess their specific needs, risk appetite, and growth objectives to determine the optimal capital structure that aligns with their overall financial strategy (Ali, 2022; Audi and Ali, 2019).

Equity represents the portion of capital invested in a business that remains after all debts and obligations have been paid off. It refers to the funds contributed by the owner(s) or shareholders themselves, serving as a measure of their ownership stake in the company (Berk & DeMarzo, 2017). Unlike debt financing, which entails borrowing money that must be repaid with interest, equity financing involves the infusion of funds by the owners or shareholders without the expectation of repayment. Equity financing plays a vital role in the capital structure of a company, providing a cushion of ownership capital that can absorb losses or fluctuations in the business. It represents the residual claim on the company's assets and earnings, entitling the equity holders to a share of profits and dividends in proportion to their ownership percentage (Ross, Westerfield, & Jordan, 2019; Ali, 2022). Furthermore, equity investors bear the risk associated with the company's performance and value, as their returns are contingent upon the company's success. One of the key advantages of equity financing is that it does not create additional financial obligations or interest payments for the company. Unlike debt, equity does not impose a fixed repayment schedule or interest burden, offering greater flexibility in managing cash flows and reducing the risk of default. Equity financing also brings strategic benefits, as it can attract investors who provide not only capital but also expertise, industry connections, and valuable guidance to support the company's growth (Cumming, 2018). However, dilution of ownership is a potential drawback of equity financing. When new equity is issued, existing shareholders' ownership stake may be diluted, resulting in a reduced percentage of control and potentially diminished decision-making power. Therefore, companies must carefully consider the trade-offs between raising capital through equity financing and maintaining the desired level of ownership and control (Brigham & Ehrhardt, 2016). In summary, equity financing represents the owner's or shareholders' capital investment in a company, providing a vital source of

funding and ownership stake. It offers flexibility, as it does not create financial obligations or interest payments, and can attract investors who bring additional value to the company. However, the decision to raise funds through equity must be balanced with considerations of ownership dilution and control implications.

## **2. AUTOMOBILE IN PAKISTAN**

During the 1950s, the first vehicle introduced in Pakistan was the Bedford truck, symbolizing the initial phase of transportation development in the country. At that time, Pakistan's economy heavily relied on agricultural products, with limited contribution from the services and manufacturing sectors. However, significant changes occurred in the automobile industry during the 1980s and 1990s when major Japanese car manufacturers entered the Pakistani market. This period marked a significant growth and development phase for the automobile sector, leading to increased employment opportunities and investment in the engineering sector (Ahmed & Yousaf, 2019). The entrance of Japanese car manufacturers brought several advantages to the Pakistani market. Japanese cars were known for their cost-efficiency and fuel efficiency, which resonated well with the consumers in Pakistan. As a result, these vehicles quickly gained popularity and captured a significant market share in the country (Malik, 2018; Ali, 2022). This expansion in the automobile sector led to the diversification of the manufacturing and assembly processes in Pakistan, enabling the production of various types of vehicles including trucks, buses, cars, rickshaws, motorbikes, and cycles (Ahmed & Yousaf, 2019). The growth and significance of the automobile sector in Pakistan can be assessed by examining its contribution to the national income and its role in employment generation. This sector has emerged as a key player in the country's economy, contributing significantly to the GDP and employing over 200,000 individuals (Economic Survey of Pakistan, 2021). The employment opportunities provided by the automobile industry have had a positive impact on the livelihoods of many people, stimulating economic growth and enhancing the overall industrial landscape of the country. In conclusion, the introduction of the Bedford truck in the 1950s marked the beginning of Pakistan's journey in the automobile sector. The subsequent entry of major Japanese car manufacturers in the 1980s and 1990s brought significant growth and development, leading to the expansion of the industry and the production of various types of vehicles. The automobile sector's contribution to the national income and its role in generating employment highlight its importance in Pakistan's economy, making it a significant industry with substantial potential for further growth and development.

## **3. CURRENT SITUATION AND THREATS**

During the global financial crisis of 2008-2009, the Pakistan automobile sector exhibited remarkable resilience, recovering swiftly while the rest of the world was grappling with economic deficits. Despite its quick recovery, it is essential to take significant measures to restore the automobile industry to its pre-recession level. Although the Pakistani automotive industry is witnessing growth, it still falls behind in terms of its substantial contributions to the country's income. Production levels, technological advancements, and local manufacturing of vehicle components remain relatively low, limiting the range of car models available to customers (Khan, 2017). Within a span of two financial years, the industry displayed an average growth rate of 26.5%, with sales reaching 127,944 units in the fiscal year 2011. However, in the initial three quarters of the fiscal year 2012, sales of passenger cars declined to 98,252 units. Meanwhile, the prevailing engineering sector in Pakistan encountered numerous challenges. The persistent power crisis posed a significant concern for the manufacturing sector, leading to increased production costs. Additionally, the high fuel prices further escalated the cost of production. The devaluation of the Pakistani rupee against the Japanese yen resulted in increased input costs and foreign exchange risks, particularly due to the import of valuable spare parts from Thailand, Japan, and Korea (Saeed, 2016). In addition to these cost-related issues, the auto-sector in Pakistan has also faced challenges stemming from conflicting and inconsistent government policies. The sector's growth is hindered by the lack of long-term vision, hasty decision-making, and a dearth of comprehensive research and analysis prior to policy formulation. These factors collectively impede the expansion and development of the automotive industry in the country (Khan, 2017). To overcome these challenges and foster the growth of the automobile sector, it is crucial for the government and industry stakeholders to work collaboratively. Policy reforms, such as providing incentives for local production of vehicle components, promoting research and development, and addressing the energy crisis, can help unlock the sector's full potential. Moreover, adopting a strategic approach and aligning government policies with the long-term goals of the industry will facilitate sustained growth and competitiveness in the Pakistani automobile sector (Saeed, 2016).

## **4. SECTOR WISE PERFORMANCE**

### **4.1. TRACTORS**

The fiscal year 2012 witnessed unprecedented turbulence in the tractor industry, with total sales experiencing a significant decline. In the span of eight months, approximately 30,000 units were sold, marking a sharp drop of 52% compared to the 45,500 units sold during the same period the previous year. This decline in sales can be attributed to the unclear tax policy

implemented by the government, which created uncertainty among buyers (Ahmed, 2013). It is important to note that the decline in sales was not solely due to the imposition of sales tax. In June of that year, the President of Pakistan made an announcement stating that farmers with landholdings of less than 12.5 acres would be exempted from paying sales tax. This declaration had an immediate impact on the demand for tractors, leading to a rapid decrease in sales. Sources indicate that a committee was formed to monitor the situation and its implications (Hussain, 2013). In March 2011, prior to the implementation of the sales tax, 5,032 units were sold. However, in July, immediately following the President's announcement, only 1,036 units were sold as people anticipated the complete elimination of the sales tax. This drastic decline in sales within a short period further highlights the influence of the government's tax policy on consumer behavior and market demand (Ahmed, 2013). The fluctuating tax policies and the subsequent impact on sales in the tractor industry highlight the need for consistent and transparent government regulations. It is imperative for the government to provide clarity and stability in tax policies, allowing businesses to plan and operate effectively. Moreover, engaging industry stakeholders in discussions and decision-making processes can help ensure that tax policies are aligned with the interests of all relevant parties (Hussain, 2013).

#### **4.2. MOTORCYCLES AND QINQUE SALES**

During the financial year 2012, the motorcycle and three-wheeler segment experienced consistent growth, with sales increasing by approximately five percent compared to the previous year (Khan, 2013). A total of 551,677 units were sold during this period, with Atlas Honda accounting for 70 percent of the sales (Pakistan Automotive Manufacturers Association [PAMA], 2012). Notably, the three-wheeler segment also demonstrated strong growth, with the "Qinque three wheeler" being the leading rickshaw category, experiencing a 50 percent increase in sales in financial year 2012 compared to the previous year (Khan, 2013). These sales figures highlight the significant contribution of the motorcycle and three-wheeler industry to the overall economy. Research conducted in the industry has revealed that the primary demand for motorcycles is generated from rural and economically disadvantaged areas (Raza, 2015). Due to the relatively affordable prices of motorcycles, manufacturers have consistently met the demand for these vehicles, even during times of severe financial crises. This resilience in sales can be attributed to the affordability factor, which ensures that motorcycles remain within reach for individuals residing in rural areas (Khan, 2013). Industry insiders have expressed their commitment to continuing the production of affordable two-wheeler bikes in the foreseeable future, acknowledging the impact of revenue generated from rural areas through the sale of motorcycles (Raza, 2015).

The consistent growth in the motorcycle and three-wheeler segment, particularly in rural areas, underscores the economic significance of this industry. The affordability and accessibility of motorcycles play a crucial role in providing transportation solutions and improving mobility for individuals living in remote and underserved regions (PAMA, 2012). Moreover, the sales figures indicate the potential for further expansion and market penetration, as the demand for motorcycles and three-wheelers remains strong, especially in rural communities (Khan, 2013).

#### **4.3. PASSENGER CAR SALES**

In the year 2012, the passenger car segment experienced significant growth, with a 17 percent increase compared to the same period in the previous year (Saleem, 2013). This growth can be attributed to various factors, including the continuous rise in allowances and purchases made under the yellow cab scheme, which stimulated demand in the market (Khan, 2013). Within the passenger car segment, the 1000cc category demonstrated the highest growth rate, reaching 35 percent compared to the previous year (Saleem, 2013). Suzuki's Cultus played a pivotal role in driving growth within this category, achieving an impressive 38 percent growth rate (Saleem, 2013). Additionally, the "under 1000cc category" also witnessed substantial growth, with a growth rate of 29 percent (Khan, 2013). In the 1300cc and above segment, Suzuki's Swift emerged as the standout performer, gaining significant customer satisfaction and achieving a remarkable growth rate of 86 percent over the same period in the previous year (Saleem, 2013). Among the automobile companies, Suzuki took the lead in growth, with a 35 percent growth rate in the first eight months of the financial year 2012 compared to the same period in the previous year (Khan, 2013). However, it is important to note that the overall growth in the automobile sector was also influenced by the purchases made under the yellow cab scheme initiated by the government of Punjab (Saleem, 2013). On the other hand, Indus Motor witnessed a modest growth of 4 percent during the same period (Saleem, 2013). Honda, on the contrary, faced challenges in financial year 2012. The impact of the tsunami in Japan and the floods in Thailand resulted in disruptions to Honda's production capabilities (Khan, 2013). As a consequence, Honda Pakistan experienced a three-month complete shutdown due to the unavailability of required machinery imported from overseas plants (Saleem, 2013). The growth and performance of the passenger car segment in 2012 highlight the dynamic nature of the automotive industry in Pakistan. The significant growth rates in various categories indicate the evolving preferences and demands of consumers. However, external factors and challenges faced by certain companies underscore the need for resilient strategies and contingency plans to ensure continuous growth and stability in the sector. The aim of this research study is to elucidate the intricate relationship between debt and equity finance in the context of the automobile industry in

Pakistan. The study intends to shed light on the importance and significance of both forms of financing by examining their respective advantages and disadvantages. To achieve this objective, a comprehensive analysis will be conducted on various automobile companies operating in Pakistan. These companies include subsidiaries involved in the manufacturing of automobiles, production of spare parts, and provision of services related to automobile products. By exploring the debt and equity financing strategies employed by these companies, the research aims to provide valuable insights into their financial decision-making processes. The study will analyze the implications of utilizing debt and equity finance in terms of risk management, cost of capital, and the impact on overall business performance. Furthermore, it will examine how these financing options influence the companies' growth prospects, profitability, and ability to withstand economic fluctuations. To gather relevant data, a combination of qualitative and quantitative research methods will be employed. Primary data will be collected through interviews with industry experts, managers, and financial professionals in the selected automobile companies. Additionally, financial statements, annual reports, and other relevant documents will be analyzed to gain a comprehensive understanding of the companies' capital structure and financing practices. The findings of this research study will contribute to the existing literature on debt and equity finance in the automobile industry, specifically in the Pakistani context. It will offer valuable insights for policymakers, investors, and industry practitioners, providing them with a deeper understanding of the implications of different financing choices and their impact on the overall financial health and sustainability of automobile companies in Pakistan.

## 5. LITERATURE REVIEW

The financing structure of a company encompasses both debt financing and equity financing. Debt financing offers its own set of advantages and disadvantages. One of the benefits of opting for debt as a source of finance is the potential tax savings it provides. Interest payments made on debt are typically deductible, thereby reducing the company's tax liability. However, it is important to note that basing the decision solely on the tax advantage and considering debt as a cheaper source of finance may not always be a prudent choice. It is crucial to weigh the potential drawbacks of debt financing as well. One such consideration is the additional cost associated with obtaining debt. Organizations are obligated to make fixed installments or interest payments regardless of their profitability. This means that even if the company is not generating sufficient profits, it is still liable to pay the predetermined debt obligations. This aspect highlights the potential risk and burden associated with relying heavily on debt financing. To make informed financing decisions, companies need to carefully evaluate the trade-offs between debt and equity financing. Factors such as the company's financial position, risk appetite, and long-term sustainability must be taken into account. Balancing the benefits of tax savings and the flexibility of equity financing can contribute to achieving an optimal financing structure that aligns with the organization's goals and financial stability.

Extensive research has been conducted in the corporate world to shed light on the optimal capital structure, including its relevance to the automobile sector. In this regard, previous studies have made significant contributions to our understanding of this topic. One prominent study in this area is the "Capital Structure Puzzle" by Stewart C. Myers, published in July 1984. Myers' research focused on unraveling the complexities surrounding capital structure decisions. The study explored the factors influencing the choice between debt and equity financing and examined the impact of capital structure on firm performance and valuation. Myers argued that there is no universal formula for determining the optimal capital structure, as it varies across industries and depends on various firm-specific factors such as profitability, growth prospects, and risk appetite. His work highlighted the trade-offs between the benefits and costs associated with debt and equity financing, ultimately contributing to the understanding of capital structure dynamics. Choosing an optimal capital structure is a complex task that requires careful consideration, particularly when compared to other corporate policies such as dividend policy. Many companies lack a thorough understanding of the concept and importance of selecting a suitable capital structure. The decision-making process for firms regarding debt and equity financing, as well as the preferred form of debt or equity, remains unclear.

Researchers have conducted a comprehensive investigation in key industrial countries to explore the factors influencing capital structure decisions in public firms. The leverage ratios of industries in G7 countries exhibit considerable similarity. The factors identified in previous research studies demonstrate similar interrelationships in other countries, mirroring their interconnectedness with firm leverage in the United States. However, despite extensive analysis of both domestic and foreign evidence, the underlying mechanisms driving this relationship remain largely unresolved. It has been thirty-seven years since Modigliani and Miller's (1958) seminal work on capital structure, and despite the publication of numerous papers on the topic, our understanding of capital structure choice in the corporate sector remains limited. The complexity of capital structure decisions and their implications necessitate further exploration and research to uncover the intricate dynamics involved. To gain a deeper understanding of the determinants of capital structure, it is crucial to analyze a diverse range of industries and countries, taking into account various economic, regulatory, and

cultural factors that may influence financing decisions. By examining the empirical evidence from different contexts, researchers can enhance our knowledge and shed light on the complex nature of capital structure choices in both domestic and global settings. In recent times, companies have shown a tendency to tailor their capital structure to maximize benefits while minimizing the cost of acquiring debt and equity. In pursuit of this objective, several theories have been proposed to explain variations in debt ratios among firms. However, empirical efforts in this area have lagged behind theoretical examinations, possibly due to the fact that the relevant business characteristics are often described using intangible concepts that are not directly observable. The predominant method employed in previous empirical research has relied on regression equations with proxies for the unobservable theoretical traits. However, this approach has encountered various challenges and limitations (Graham and Harvey, 2001). To advance our understanding of capital structure determinants, it is crucial to employ rigorous empirical methodologies that overcome the limitations of previous approaches. By incorporating more sophisticated statistical techniques and utilizing comprehensive datasets, researchers can enhance the accuracy and reliability of their findings. Furthermore, it is important to consider the contextual factors that may influence capital structure decisions, such as industry characteristics, macroeconomic conditions, and regulatory environments. By adopting a comprehensive and nuanced approach, researchers can shed light on the complexities of capital structure decisions and contribute to the existing body of knowledge in this field.

## **6. RESEARCH METHODOLOGY**

### **6.1. COLLECTION OF DATA**

Data for the study was obtained from various sources, encompassing both primary and secondary data. The researchers conducted a comprehensive review of the financial statements and press releases of companies operating in the automobile sector. Furthermore, articles from newspapers and the internet were consulted to gain insights into the determinants of capital structure specific to the automobile sector in Pakistan. To assess the current capital structure of the automobile sector, the market value of shares and overall market worth were calculated using data collected from the market. Primary data collection involved gathering information directly from the companies in the automobile sector through surveys, interviews, or questionnaires. This allowed the researchers to obtain firsthand knowledge and insights regarding the factors influencing the capital structure decisions of these companies. Secondary data, on the other hand, involved using existing data sources such as industry reports, academic studies, and government publications to supplement the primary data and provide a broader perspective on the subject. The inclusion of both primary and secondary data sources helps ensure the reliability and validity of the findings. By examining financial statements, press releases, and relevant articles, the researchers were able to gain a comprehensive understanding of the factors affecting capital structure decisions in the automobile sector. Additionally, the use of market data provided valuable insights into the current state of the sector and allowed for a comparative analysis of capital structures among different companies.

### **6.2. ANALYSIS OF DATA**

Data collected from different sources is analyzed in several ways. These steps are separately discussed here.

- Financial statements of the targeted companies are acquired. It includes statement on profit and loss account, cash flow statements, statement of financial position and notes to the accounts.
- Data required for our research is definitely the debt and equity portion in the total capital of the targeted organizations, so that data is extracted from the balance sheets of the companies.
- The nature of companies' capital structure is totally dependent on the nature of the business the company is conducting, its policies and situation (financial situation of the company and its legal state). The data collected is analyzed in this way according to the situation of the company.
- In order to derive accurate findings and results, we take the data of debt and equity from balance sheet and calculate the ratios of both of them to total capital.
- The calculated data is presented in tabular form for better and easy understanding. For this purpose Microsoft excel is utilized.
- Then the changes in the debt or equity in ratio to total capital is compared with the previous years to observe the trend of the company.

### **6.3. SAMPLE**

To investigate the capital structure of the automobile sector in Pakistan, this study focused on two prominent multinational companies with affiliated operations in the country: Toyota Indus Motor and Honda Pakistan. By selecting these well-established industry leaders, the research aimed to gain valuable insights into the capital structure practices and decision-making processes within the sector. The selection of Toyota Indus Motor and Honda Pakistan as sample companies was based on their significant presence and influence in the global automobile industry. These companies have

a strong market presence and have established themselves as key players in the Pakistani market. By analyzing their capital structure, the study sought to understand the strategies employed by these companies and their implications for the overall sector. The researchers utilized data from previous years' performances of the sample companies to examine their capital structure dynamics. This involved analyzing financial statements, annual reports, and other relevant financial data to assess the composition of their capital, including the proportions of debt and equity financing. By focusing on these two industry giants, the study aimed to provide valuable insights into the capital structure decisions and practices within the automobile sector in Pakistan. The findings from this research can contribute to a better understanding of the factors influencing capital structure choices in the industry and offer implications for other firms operating in the sector.

## 7. FACTS AND FINDINGS

Atlas Honda Limited is a joint venture between Atlas Group and Honda Motors Company of Japan. This partnership was formed by merging two motorcycle manufacturing businesses, Panjdarya Limited and Atlas Autos Limited, under the umbrella of Atlas Honda in 1988 (Atlas Honda Limited, n.d.). To analyze the capital structure of Honda Pakistan Company, relevant financial data was extracted from their financial statements, including the statement of profit and loss and the statement of financial position. The data collected pertains to the years 2012, 2011, 2010, and 2009, enabling a comparative analysis of the company's capital structure over these years. The table below presents the key financial figures related to capital, shareholders' equity, and noncurrent liabilities (debt/loan) of Honda Pakistan Company for the period from 2009 to 2012:

**Table 1**

Description	Rs in M	Mar-2012	Mar-2011	Mar-2010	Mar-2009
Paid up Share Capital	Rs in M	1,428	1,428	1,428	1,428
Shareholders' equity	Rs in M	1,145	1,677	1,976	2,828
Noncurrent liabilities	Rs in M	83	417	1,333	1,500
Capital Employed	Rs in M	1228	2,094	3,309	4,328

### 7.1. COMPARISON WITH PREVIOUS YEARS

The collected data from the financial statements of Honda Pakistan Company has been subjected to analysis. Specifically, attention has been focused on the changes in equity and debt in comparison to the equity and debt figures from previous years. By examining the financial statements, it is possible to identify any variations or trends in the company's equity and debt positions over time. This analysis allows for a better understanding of the company's financial health and its capital structure dynamics.

**Table 2**

Year	Total Capital Employed	Debt	Equity	Increase/(Decrease) in Debt	Increase/(Decrease) in Equity
2009	4328	1500	2828	1000	(402)
2010	3309	1333	1976	(167)	(852)
2011	2094	417	1,677	(916)	(299)
2012	1228	83	1,145	(334)	(532)

For the financial year 2009 the company's capital structure, based on my calculations will be as follows:

**Table 3**

Capital = debt + equity	
100% = 35% + 65%	
Calculations:	
<u>Debt</u>	= $\frac{1500}{4328} \times 100 = 35\%$
Total capital 4328	
<u>Equity</u>	= $\frac{2828}{4328} \times 100 = 65\%$
Total capital 4328	

Upon analyzing the gathered data on debt and equity of Honda Pakistan, it is now possible to examine the trend of the debt-to-equity ratio in the company's capital structure. By considering the financial statements of the company for four consecutive years, we can calculate the proportion of equity and debt within their financial structure. This calculation will provide us with a clear percentage representation of equity and debt for each year, starting from the financial year 2009 to 2012. In financial year 2009, the capital structure of the company Honda Pakistan was 35% debt and 65% equity. This may be the ideal situation for a company because due to debt companies save tax credit as expense and have it as a

benefit. On the other side, if they move on towards taking more loan or debt, they will have to pay interest as a cost of debt capital. That will not only lessen their profits but also fall company in liquidity dangers. In the financial year 2010, Honda Pakistan had a capital structure consisting of 40% debt and 60% equity. This allocation of 40% debt financing and 60% equity capital is often considered an ideal situation for companies. Honda Pakistan experienced this capital structure composition in 2010, where 60% of their capital was sourced from equity and 40% from borrowed financing. Equity capital represents the portion of the company's capital that is issued to or subscribed by the public, indicating ownership in the company. Upon comparing the financial reports of 2009 and 2010, it was observed that the debt financing increased by 5%, indicating that the company had taken on 5% more debt in 2010. Conversely, there was a decrease of 5% in equity finance, indicating a reduction in the share capital issued by the company. It is worth noting that the industry average capital structure ratios for equity and debt are typically around 60% and 50% respectively. These ratios are commonly observed in industry practices, suggesting a balanced distribution between equity and debt in companies' capital structures. For the year 2010, the capital structure breakdown in terms of ratios is calculated as follows:

**Table 4**

Capital = debt + equity	
100% = 40% + 60%	
Calculations:	
<u>Debt</u>	= $\frac{1333}{3309} \times 100 = 40\%$
	Total capital 3309
<u>Equity</u>	= $\frac{1976}{3309} \times 100 = 60\%$
	Total capital 3309

The capital structure of Honda Pakistan in the financial year 2011 underwent a significant change, with a reduction of 20% in debt compared to the previous year. This indicates that the company relied more on equity capital rather than debt financing. In 2011, Honda Pakistan successfully paid off 20% of its outstanding debt, demonstrating a decrease in the company's reliance on borrowed funds. To compensate for the reduction in debt, Honda Pakistan issued 20% more shares, resulting in an increase in equity. However, it is important to note that an excessive reliance on equity can potentially limit the opportunities for future profits. One of the advantages of debt financing is the tax shield it provides, as interest payments on debt can be tax-deductible. When a company replaces debt with equity, it eliminates the additional opportunity for future profits that debt can provide. It is crucial to consider this opportunity cost when evaluating the cost of equity. Based on the calculations, the capital structure of Honda Pakistan for the financial year 2011 is as follows:

**Table 5**

Capital = debt + equity	
100% = 20% + 80%	
Calculations:	
<u>Debt</u>	= $\frac{417}{2094} \times 100 = 20\%$
	Total capital 2094
<u>Equity</u>	= $\frac{1677}{2094} \times 100 = 80\%$
	Total capital 2094

In the year 2012, Honda Pakistan's capital structure exhibited an alarming trend with an excessively high equity-to-capital ratio. Out of the total capital, a staggering 93% was attributed to equity, while only 7% comprised debt financing. This signifies an imbalanced capital structure, as the company heavily relied on equity capital, neglecting the potential benefits of debt financing. The total debt and equity for the year 2012 amounted to Rs. 1228 Million, which is significantly lower compared to the company's previous years' total capital. This decline in total capital implies a potential decrease in the company's profitability. When a company's share capital slows down, it may indicate a decline in its overall financial performance and earnings. To provide a clearer perspective, the capital structure ratios for the year 2012 are calculated in table 6.

## 7.2. FINANCIAL ANALYSIS OF DATA

To facilitate a comprehensive analysis, the financial data from the balance sheets of Toyota Motors has been compiled and presented in tabular form. This presentation allows for a clearer understanding of the company's financial position. The focus is specifically on the total capital employed, debt financing, and equity financing as these elements are essential for our examination. The data presented in the table is denominated in trillions, reflecting the condensed balance sheet figures. This choice of unit is particularly relevant due to Toyota Motors being an international company with manufacturing and assembling units in Pakistan. By including the consolidated balance sheet data, we gain insights into



the efficient management practices employed by Toyota Motors. Notably, key financial indicators such as sales, purchases, manufacturing costs, and other relevant figures are all reported in trillions.

**Table 6**

Capital = debt + equity 100% = 7% + 93% Calculations: $\frac{\text{Debt}}{\text{Total capital}} = \frac{83}{1228} \times 100 = 7\%$ $\frac{\text{Equity}}{\text{Total capital}} = \frac{1145}{1228} \times 100 = 93\%$
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**Table 7**

Description	Rs. In T	2012	2011	2010	2009
Long-Term Debt	Rs. In T	6.04	6.45	7.02	6.3
Common equity stock	Rs. In T	11.07	10.92	10.93	10.6
Total Capital	Rs. In T	17.11	17.37	17.95	16.9

By examining the performance of the company on a year-by-year basis, we can observe fluctuations in both equity and debt capital. These changes, whether positive or negative, provide valuable insights into the company's prevailing trends and its level of awareness regarding its capital structure. Analyzing the collected data allows us to gain a clearer understanding of these dynamics. Tracking the variations in equity and debt capital over time enables us to identify patterns and trends in the company's capital structure. It offers valuable information about the company's strategic decisions, financial stability, and risk management practices. Understanding these trends can help us evaluate the company's level of attentiveness and adaptability to changing market conditions and investor preferences. The collected data provides a basis for in-depth analysis, allowing us to assess the company's capital structure and its alignment with financial objectives and market dynamics. By examining the shifts in equity and debt capital, we can gain insights into the company's financial health, investment decisions, and capital allocation strategies. This analysis not only enhances our understanding of the company's capital structure but also serves as a valuable tool for evaluating its performance, profitability, and overall financial sustainability.

**Table 8**

Year	Total Capital	Debt	Equity	Increase/(decrease) in Debt	Increase/(decrease) in Equity
2009	16.9	6.3	10.6	0.32	(1.93)
2010	17.95	7.02	10.93	0.72	0.33
2011	17.37	6.45	10.92	(0.57)	(0.01)
2012	17.11	6.04	11.07	(0.41)	0.15

## 8. CONCLUSION

In conclusion, my research has revealed the vast scope of the field of capital structure and its determinants, highlighting the importance of adopting an optimal capital structure for organizations to mitigate risks and avoid potential damages, such as insolvency resulting from an inability to repay debt. Firms must carefully determine the appropriate level of debt financing that aligns with their specific circumstances. Debt financing offers advantages, including easier accessibility and lower cost of capital compared to equity financing, as well as the benefit of a tax shield. However, it is crucial for firms to consider the finance cost associated with debt, namely the interest payments required to service the borrowed funds. Equity financing, on the other hand, comes with its own cost in the form of the cost of equity, which includes the opportunity cost associated with it. Earlier in my research, I discussed the various types of equity and how it can be generated. Throughout my study, I observed a trend in the automobile industry, specifically in the case of Toyota Motors and Atlas Honda, where the companies utilized debt as less than 50% of their total capital. This indicates that these companies rely less on external sources for generating funds. Based on my research findings, it can be concluded that the hypothesis stating that a capital structure with less than 50% debt is preferable for firms has been supported. This implies that firms should carefully consider their debt-to-equity ratio and strive to maintain a balance that aligns with their financial goals and risk tolerance.

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