

Analysis of Corporate Financing Behavior Based on Pecking Order Theory: Evidence from BYD

Huanxun Yao *

Sino - French Institute, Renmin University of China, Haidian Subdistrict, Beijing, China

* Corresponding Author Email: yaohuanxun.roxane@ruc.edu.cn

Abstract. Corporate financing behavior is of vital importance in the field of corporate finance, and the Pecking Order Theory is one of the major theories of capital structure. The Pecking Order Theory of Western financing is derived from empirical research. However, in view of the claim in previous literature that this theory becomes a paradox in China, this paper takes BYD, an influential new energy vehicle enterprise, as the research object. With the help of BYD's financing data from 2020 to 2024, this paper expounds on BYD's development history and financing situation, analyzes the fit between its financing behavior and the theory, and finds that it is not a paradox. Instead, there are problems such as the mismatch between retained earnings and investment growth, liquidity problems caused by the short - term nature of bond financing, insufficient utilization of equity financing and shortage of long - term capital. Furthermore, countermeasures such as improving internal financing efficiency and optimizing debt and equity financing are proposed, which not only enriches the application of this theory but also provides guidance for similar enterprises.

Keywords: Pecking Order Theory, Corporate Financing Behavior, BYD; Bond Financing.

1. Introduction

Corporate financing behavior is a core issue in the field of corporate finance, as it directly affects the rationality of a firm's capital structure, the level of operational efficiency, and the stability of long-term development [1]. The Pecking Order Theory, also known as the Pecking Order Model, relates to a company's capital structure. Made popular by Stewart Myers and Nicolas Majluf in 1984, the theory states that managers follow a hierarchy when considering sources of financing. The Pecking Order Theory states that managers display the following preference of sources to fund investment opportunities: first, through the company's retained earnings, followed by debt, and choosing equity financing as a last resort [2]. Since its proposal, this theory has been widely used to analyze the financing decision-making logic of enterprises in different industries and market environments. Currently, in innovation-driven industries such as new energy vehicles, enterprises face more complex financing needs and more diverse and challenging financing options. As a leading enterprise in the new energy vehicle industry, BYD not only holds a relatively high market share but also has benchmarking significance in technological R&D and industrial chain layout, making it a typical case for verifying the applicability of the Pecking Order Theory in real corporate scenarios. Therefore, this study focuses on BYD to explore the degree of alignment between its financing behavior and the Pecking Order Theory, and to identify potential problems in its financing process.

Existing studies have extensively explored the Pecking Order Theory from various dimensions. In terms of industry-specific applications, Ji Qingsong conducted a cross-case analysis of Furi Group and Zhongsheng Group in the automotive circulation sector, revealing that the theory can guide financing choices and risk control in this industry [3]. However, when examining the Chinese context, Sun Kai and Liang Shulin pointed out a "Pecking Order Paradox", where Chinese enterprises' financing behavior deviates from the theoretical sequence due to factors like capital market imperfections and corporate governance issues [4]. From the perspective of capital cost, Wang Zhiliang et al. reinterpreted the theory by analyzing the cost of retained earnings, noting that incorrect calculation of this cost can lead to misestimation of the weighted average cost of capital, which in turn affects the understanding of the pecking order in financing decisions [5]. Despite these insights,

there remains a gap in applying the theory to specific high-profile enterprises like BYD, especially considering its unique position in the new energy vehicle market and diverse financing activities.

This study takes BYD as the core research object and conducts analysis based on its financing data from 2020 to 2024. First, the study sorts out BYD's development history and financing status, focusing on the scale and structure of three core financing methods: retained earnings, bond financing, and equity financing. Second, by comparing the financing behavior with the expected order of the Pecking Order Theory, the study evaluates the degree of alignment between the two and identifies existing problems. Finally, targeted countermeasures are proposed to address the above problems. In terms of theoretical value, this study can enrich the application scenarios of the Pecking Order Theory in the new energy vehicle industry and provide empirical support for the localized verification of the theory. In terms of practical value, the research conclusions can provide practical references for BYD and other enterprises in the same industry to optimize financing strategies and improve financing efficiency.

2. Case Description

2.1. Development History

BYD Company Limited (referred to as "BYD") was established in February 1995, with its headquarters located in Shenzhen, Guangdong Province. The company currently has more than 220,000 employees, and its business spans four major industries: automobiles, rail transit, new energy, and electronics. It is listed in both Hong Kong and Shenzhen, with operating revenue and market value exceeding 100 billion yuan. BYD started by producing secondary rechargeable batteries and entered the lithium - ion battery industry in 1997. In 2002, BYD was listed on the Hong Kong Stock Exchange. In 2003, BYD entered the automotive industry and laid out new energy vehicles. In 2008, Warren Buffett's Berkshire Hathaway Inc. invested in BYD, and the world's first dual - mode electric vehicle F3DM that does not rely on professional charging stations was launched, taking the lead in commercializing electric vehicles. In 2009, BYD entered the pure electric bus and pure electric forklift industries. In 2011, it was listed on the Shenzhen Stock Exchange (stock code: 002594). In 2020, it officially released the "Blade Battery", and the BYD "Han" model was launched. In 2021, it released DM - i super hybrid, launched Qin, Song, Tang and other DM - i super hybrid models, and released the pure electric - exclusive platform (the e platform 3.0) [6]. In February 2024, the British brand evaluation and consulting company "Brand Finance" released the "2024 Global Top 500 Brand Value" list. BYD is the only Chinese automotive brand to enter the 2024 Global Top 500 Brand Value, ranking 172nd [7].

2.2. Corporate Financing Performance and Status

From the perspective of the Pecking Order Theory, enterprises usually give priority to internal financing, followed by debt financing, and finally equity financing. BYD's financing behavior in the past five years can be analyzed from the following dimensions.

2.2.1 Retained earnings

As a key part of internal corporate financing, retained earnings reflect an enterprise's self - generating capacity [8]. In this study, internal financing of the company is measured by retained earnings, which is the sum of surplus reserves and undistributed profits. The data is sourced from BYD Company Limited's annual reports. Data shows that from 2020 to 2024, BYD's surplus reserve increased from 4.448 billion yuan to 7.374 billion yuan, and the undistributed profit soared from 24.457 billion yuan to 98.648 billion yuan. The total retained earnings also increased from 28.905 billion yuan to 106.022 billion yuan accordingly, with a compound annual growth rate exceeding 30%. This significant growth indicates that the BYD's profitability is continuously enhanced and its internal financing capacity is continuously improved, providing a stable financial guarantee for technological research and development and production capacity expansion.

2.2.2 Debt financing

Debt financing refers to the act of a company raising funds by issuing bonds [9]. In this study, the indicator of total liabilities is used to measure the corporate bond financing. From 2020 to 2024, BYD's total liabilities increased sharply from 136.563 billion yuan to 584.668 billion yuan. Among them, short - term loans were 16.401 billion yuan in 2020, rose to 18.323 billion yuan in 2023, and then fell back to 12.103 billion yuan in 2024; long - term loans decreased from 14.745 billion yuan to 8.258 billion yuan; and lease liabilities increased from 843 million yuan to 9.876 billion yuan. On the whole, the scale of debt financing is constantly expanding, which reflects that on the basis of relying on internal financing, the company actively raises funds by means of bank loans, leasing, etc., for the construction of overseas factories, supply chain optimization and the improvement of new energy vehicle production capacity.

2.2.3 Equity financing

Equity financing refers to the method of raising funds by issuing shares [10]. During this period, BYD's share capital was 27.281 billion yuan in 2020. In 2021, due to the issuance of additional overseas - listed foreign shares, the share capital increased to 29.111 billion yuan. In 2023, because of the owners' investment in ordinary shares, the share capital slightly increased to 29.111 billion yuan. After the repurchase of ordinary shares in 2024, the share capital became 29.093 billion yuan. It can be seen that equity financing had relatively significant actions only in 2021, and was relatively stable in other years. This is in line with the logic of equity financing as the "last resort" in the Pecking Order Theory, which is generally only initiated when the company is facing major business breakthroughs.

2.2.4 Matching of investment expenditure and financing

The ultimate purpose of corporate financing is to meet investment needs. From 2020 to 2024, BYD's total investment expenditure grew rapidly from 13.611 billion yuan to 101.026 billion yuan. Among them, expenditures such as the purchase and construction of fixed assets increased from 11.774 billion yuan to 97.360 billion yuan, and the cash paid for investment increased from 1.837 billion yuan to 3.666 billion yuan. The rapid expansion of investment scale matches the growth of retained earnings and the increase in debt financing, fully reflecting the strong supporting role of financing for investment. At the same time, BYD continued to maintain high R&D investment. In 2024, the R&D investment reached 54.2 billion yuan, a year - on - year increase of 35.68%. The cumulative R&D investment in the past five years exceeded 180 billion yuan. The high - intensity R&D investment has promoted technological iteration and the improvement of product competitiveness.

3. Problem Analysis

Although BYD's financing behavior generally follows the Pecking Order Theory, an in-depth analysis combined with data still reveals some non-negligible problems.

3.1. The Matching Degree Needs to Be Improved

The matching degree between internal financing growth and investment expenditure growth needs to be improved. During the period from 2020 to 2024, the compound annual growth rate of BYD's retained earnings was about 30%, while the compound annual growth rate of total investment expenditure exceeded 60%. The coverage ratio of internal financing to investment dropped sharply from 212% in 2020 to 105% in 2024, which clearly indicates that the supporting pressure of internal financing on investment is gradually increasing. With the continuous expansion of the company's business, such as the further cultivation of overseas markets and the research and development as well as mass production of new vehicle models, investment demand will continue to rise. If internal financing cannot keep up with the growth pace of investment expenditure, it may lead to the tension of BYD's capital chain and affect the implementation of BYD's development strategy.

3.2. Debt Financing Shows Short-term Characteristics, Existing Difficult Liquidity Management

The proportion of BYD's short - term borrowings in debt financing fluctuates greatly. In 2020, the proportion of short - term borrowings in the total debt were 12%. This proportion soared to 35% in 2023. Although it fell back to 21% in 2024, the problem of a too high proportion of short - term debt still stands out. This situation is very likely to aggravate the company's liquidity risk. Once the market environment undergoes adverse changes, such as a sharp rise in the interest rate of the short - term capital market and the concentrated emergence of BYD's short - term debt repayment peak, the company may face difficulties in capital turnover and even trigger a financial crisis. In addition, the frequent rolling over of short - term debts will also increase BYD's financing cost and management cost.

3.3. The Efficiency of Equity Financing and the supplement of Long-term Capital

The efficiency of equity financing has not been fully utilized, and the supplement of long - term capital is insufficient. Except for the relatively significant share issuance actions in 2021, the overall activity of BYD's equity financing in other periods is relatively low, and the growth of the share capital scale is relatively limited. This makes the efficiency of equity financing in supplementing long - term capital and optimizing corporate governance not fully exerted. In the new energy vehicle industry, technology iteration is rapid and market competition is fierce. Enterprises need a large amount of long - term capital to invest in research and development, production capacity expansion and market expansion. The insufficiency of the efficiency of equity financing is not conducive to enterprises maintaining advantages in long - term competition and makes it difficult to effectively respond to the long - term technological changes and market competition challenges in the industry.

4. Suggestions

4.1. Improve Internal Financing Efficiency and Optimize Profit Distribution Mechanism

BYD could further strengthen cost control measures, reduce production and operating costs through means such as refined management and technological innovation, thereby improving the enterprise's profit level. At the same time, BYD could optimize the profit distribution policy. On the basis of fully safeguarding the legitimate rights and interests of shareholders, appropriately increase the proportion of retained profits. For example, a profit distribution plan based on the enterprise's strategic goals can be formulated. During the stage of rapid business expansion and strong investment demand, cash dividends can be moderately reduced, and more profits can be retained within the enterprise to enhance the supporting capacity of internal financing for investment and provide stable financial support for the sustainable development of the enterprise.

4.2. Optimize the Debt Financing Structure and Increase Long - term Debt Financing

BYD could reasonably plan debt maturity and actively expand financing channels such as long - term loans and the issuance of long - term corporate bonds. In terms of long - term loans, BYD could strengthen strategic cooperation with banks and other financial institutions to strive for loan quotas with longer terms and lower interest rates. In terms of issuing long - term corporate bonds, BYD could make full use of the capital market and issue bond products with different terms and interest rates in a timely manner according to the company's capital needs and market interest rate conditions. Through these measures, BYD could reduce the proportion of short - term debt in debt financing, alleviate the pressure of liquidity management, enable the debt financing structure to better match the enterprise's long - term investment needs, and reduce the enterprise's financial risks.

4.3. Explore Diversified Equity Financing Methods and Enhance the Efficiency of Equity Financing

In combination with the company's strategic development needs, BYD can carry out diversified equity financing activities such as private placement and the introduction of industrial strategic investors in a timely manner. Through private placement, issue shares to specific investors to raise funds for the development of the enterprise's core businesses, such as the research and development of key technologies for new energy vehicles and the construction of high - end production capacity. The introduction of industrial strategic investors can not only supplement the enterprise's long - term capital but also optimize the corporate governance structure and enhance the enterprise's core competitiveness with the help of the strategic investors' resources, technology and market advantages in the industry.

5. Conclusion

This paper conducts a study on BYD's financing behavior from 2020 to 2024 based on the Pecking Order Theory. Through case description, it outlines BYD's development history and financing situation involving retained earnings, bond financing, and equity financing. Then, by analyzing the fit between BYD's financing and the Pecking Order Theory, it identifies several problems: the fit between retained earnings growth and investment expenditure growth needs to be enhanced; bond financing shows short - term characteristics and faces liquidity management difficulties; and equity financing efficiency is not fully utilized, with long - term capital being insufficient. Correspondingly, three countermeasures are put forward: improving internal financing efficiency and optimizing the profit distribution mechanism to better play the role of retained earnings; optimizing the debt financing structure and increasing long - term debt financing to address the short - term issue of bond financing; and exploring diversified equity financing methods and enhancing equity financing efficiency to make full use of equity financing and supplement long - term capital.

However, this study has certain limitations. It only focuses on BYD's financing behavior within a specific time frame (2020 - 2024) and in the context of the new energy vehicle industry. The findings and countermeasures may have limited generalizability to other industries or longer - term scenarios. Future research can expand the research scope to include more enterprises in different industries and longer time periods to further verify and enrich the research results.

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