Analysis of BYD Zero Cost Shareholding Incentive Plan

Yan Dai ¹, Zhanfeng Wang ² and Chenchen Zhao ³, *

¹ Jinling High School Heixi Campus, Nanjing, China
² School of business, Henan University of Economics and Law, Henan, China
³ School of business, Beijing International Studies University, Beijing, China
* Corresponding Author Email: 2022211118@stu.bisu.edu.cn

Abstract. As a matter of fact, with the continuous entry of new energy into the market, the competition among new energy enterprises has gradually increased. In this case, each new energy enterprise continues to maintain its own original interests and open up a wider market through the reform of the company and financial structure and the implementation of various incentive plans. BYD, as a rapidly rising domestic new energy vehicle, has also made corresponding plan adjustments in recent years. With this in mind, we combined different reference materials and data, through the comparison of BYD company in different periods, to BYD 2022 new proposed “zero cost” employee stock ownership incentive plan to make an analysis. According to the analysis of its implementation motivation, the relationship between decision-makers and shareholders, the effect of implementation and other aspects of the corresponding conclusions and revelation. Overall, these results shed light on guiding further exploration of shareholding incentive plan.

Keywords: Incentive plan; motivation; effect; conclusion; revelation.

1. Introduction

With the shortage of oil resources, a large number of new energy vehicles enter the market, which intensifies the competition in the new energy vehicle market. In response to this trend, different car companies have carried out corresponding internal structure or plan reforms. From the perspective of market signal transmission theory, when shareholding employees participate in the process of corporate governance, their own interests are bound to the interests of the enterprise, which will strengthen the control of the operation and financial risks of the enterprise, and then transmit good business information to the capital market, which is conducive to attracting capital investment in the public capital market. It helps to form a circular structure of two-way promotion, and helps enterprises to form a value signal of strong sustainability, large internal and external value, and good growth prospects, which is conducive to the development of enterprises in the capital market.

As a Chinese automobile brand and as the first domestic traditional automobile enterprise to stop production of fuel vehicles and fully embrace new energy, BYD plays an advantage in technology, brand, production capacity, price, globalization strategy etc. These are inseparable from the implementation of employee stock ownership incentive plan to effectively improve the stability and competitiveness of the company. Through its own reform and plan adjustment, it has steadily occupied the top position in new energy vehicles. However, scholars at home and abroad have paid more attention to the research on CTB technology, marketing strategy, and the "zero cost" stock incentive plan currently adopted by BYD, and the relevant research is not enough.

In the annual report of BYD in 2022, the buyback of the employee stock ownership plan in this period has been completed, and the fair value of the granted shares on the grant date is 1.86 billion, and the cumulative number of repurchased shares is 5.511 million shares. It can be seen that BYD still has a very good development prospect in the future. A company does not only rely on technology and capital, internal governance and employee mobilization are also very important. Therefore, it is hoped to analyze BYD measures similar to incentive contracts. To explore why BYD implements such an incentive plan, what kind of relationship between decision makers and management is highlighted through such a plan, and what kind of positive or negative impact the implementation of
such an incentive plan will bring, hoping that this study can be used as a reference for predicting BYD development in the future.

2. Literature Review

Equity incentive plan is an effective means to improve the operation efficiency and improve the management level under the modern enterprise system. By allowing the core employee stock ownership to become the owner of the enterprise and participate in the corporate governance activities from the perspective of the owner, the sense of identity can weaken the operational risks and achieve the strategic goals of the enterprise. In its infancy domestic research found that most of the listed companies at first the purpose of equity incentive is to improve the performance of the enterprise, but in the process of equity incentive system, it shows the effect of diversity, many enterprises through equity incentive plan to establish a long-term incentive mechanism, to motivate employees, raise funds, improve enterprise value, optimize the equity structure, so the academia launched a lot of new research. From the perspective of the incentive effect. In they research, Feng and Jia concluded that when the governance structure of listed companies is relatively perfect, they are motivated to use equity incentive to guide senior executives and core employees through equity incentive, so as to play a positive role, but its influence also includes some non-incentive components [1]. Zhang found that equity incentive will not only affect the company's performance, compared with previous research [2], the conclusion has more concrete performance, in June 2014 to June 2015 between the implementation of employee stock ownership plan of the company as a sample, the study found that after the implementation of employee stock ownership system, enterprise shareholders cumulative excess yield positive changes, show a good market response. At the same time, the study found that the equity incentive plan is conducive to reducing the agency cost of enterprises, thus promoting the release of human resources, and plays an important role in efficiency improvement. Later, the research of Song and Li found that the implementation of equity incentive has a great promotion effect on the investment efficiency of the company [3], and this positive related incentive effect will improve the behavior of insufficient investment or excessive investment and construction with the enhancement of the incentive intensity. Meanwhile, through the empirical analysis of China's A-share companies, the enterprises with great development potential are more inclined to implement the employee stock ownership plan.

As an imported product under the western modern enterprise system, the equity incentive plan was implemented in China in the early stage mainly for the executives within the company. However, with the continuous improvement of the modern enterprise system in China, the object of the equity incentive plan has also changed. In the research of Cao [4], he called for the object of the equity incentive plan to be updated from the aspects of sustainable competition and excess profits. In the research, he believed that the object of the equity incentive plan should not only be limited to the senior management of the enterprise, but also can be delegated to a certain extent. This is contrary to the conclusion that Murphy believes in its research that only executives who can truly affect the company's stock price can be included in the incentive target, not that employees should be included in its scope [5]. Afterwards, the research of Li found that the scope of equity incentive objects significantly affected the effect of equity incentive, and the larger the scope of equity incentive objects, the better the incentive effect, which proved that equity incentive should not only be limited to motivate the executives of the company [6]. At the same time, the nature of property rights and industry characteristics significantly affect the scope of equity incentive objects, that is, non-state-owned enterprises, and the positive correlation between the scope of equity incentive plan and the scope of equity incentive plan. Subsequently, Li in the study when the enterprise awarded senior management personnel equity number and core technical personnel equity number difference is larger [7], after informing the relevant variable factors found to grant different incentive object equity difference is too big to achieve incentive effect, it also requires enterprises on the choice of incentive object by the line to make certain trade-offs.
From the perspective of the incentive mode, Murphy found that for some rapid development of the company, its more inclined to choose the stock option rather than other ways, and the proportion of the difference is obvious, however, the study of scholars and foreign scholars have different conclusions. Li [8] and Shen [9] analyze from different angles, compared with stock options, the incentive of restricted stock is more suitable for our capital market, and it is consistent with the most of the equity incentive plan of listed companies. From the above review of domestic and foreign literature, there are still considerable differences in the views and conclusions of the research on equity incentive plan. At the same time, there is a lack of the current emerging equity incentive model and the specific effect analysis.

3. The Concept of Stock Ownership Plans and Zero Cost Stock Ownership Plans

BYD employee stock Ownership Plan is an incentive plan set up by BYD Company in order to encourage employees to actively participate in the development of the enterprise and improve their work enthusiasm and sense of belonging. In fact, BYD employees can enjoy the corresponding preferential conditions of shareholding according to their position level, length of service and contribution degree and other factors. The plan is that BYD will sell shares in the company to employees for a certain price, and employees can. According to a certain proportion of the purchase of the company's shares, at this time BYD employees buy shares to a certain extent is lower than the market price, or hold the corresponding preferential policies, but it will still have a certain cost for the purchase of shares. Similarly, the "zero cost" stock ownership incentive plan also has the same concept, but different from the employee stock ownership plan, the shares sold by the company do not need employees to spend money to buy, but through the company's voluntary gift to the hands of employees, so from the perspective of stock buyers, such a way is undoubtedly a "zero cost".

4. The Implementation of BYD's Zero Cost Shareholding Incentive Plan

BYD currently uses a "zero cost" employee stock ownership plan. In April 2022, BYD Exchange announced that it planned to buy back shares with 1.8 billion yuan, and all shares were used for the implementation of the company's employee stock ownership plan. Because the number of shares can not meet the needs of all employees, BYD company unlocked a certain proportion of shares in three years, unlocking 30%, 30% and 40% each year, annual unlock is also combined with the corresponding company performance conditions and personal performance conditions. in order to increase the rationality of stock allocation, BYD company conducted an assessment of individual employees, based on the final performance as the evaluation standard.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Proposed allotment</th>
<th>Proportion of share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee representatives, supervisors, key senior managers</td>
<td>553,324</td>
<td>7</td>
</tr>
<tr>
<td>Other employees</td>
<td>7,351,307</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>7,904,631</td>
<td>100</td>
</tr>
</tbody>
</table>

Regarding the reasonableness of the transfer price of the employee stock ownership plan, BYD stated that the participants of this employee stock ownership plan (as shown in Table 1) include the company's employee representative supervisors, senior management personnel, as well as the middle level management and core core employees of BYD Group, covering core employees in various positions of the group such as technology, operations, marketing, and comprehensive management. Most of the shareholding employees are the main executors of the company's strategy and the backbone of the team, playing a crucial role and influencing the overall performance and long-term
sustainable and stable development of the company. This move aims to promote the long-term development of the company, safeguard shareholder rights, fully mobilize the enthusiasm and creativity of shareholders, and improve employee cohesion and company competitiveness.

5. Analysis of Incentive Plan

5.1. The Motivation Analysis of Implementation

After entering the 21st century, along with the deepening of economic globalization, a large number of advanced enterprise management methods and operation modes have been introduced into China. Among them, the Enterprise Equity Measures (Trial Implementation) issued by China Securities Regulatory Commission in 2006 marks the initial establishment of China's equity incentive management mechanism. With the continuous improvement of China's market economic system, the key points of development have gradually shifted from the demand side to the supply side structure, which requires manufacturers in various fields and industries in the market to continuously improve the quality of products, enrich the types of products, and so on to maintain the competitiveness of products and enterprises. For major new energy vehicle companies, with the continuous expansion of the new energy market and the scale of vehicle companies in recent years, in this process, technical and management senior talents with high-tech or sufficient management experience have gradually become one of the core resources for each enterprise to compete for. And a substantial and sound equity incentive plan has become an important starting point for enterprises to introduce talents, retain talents and prevent brain drain. At the same time, it also enhances the scientific research and management strength of the enterprise in disguise.

As shown in Fig. 1, BYD has developed rapidly in recent years. In the first half of 2022, BYD's sales of new energy vehicles have surpassed Tesla to become the world's top 1. The stock price has also surged from around 60 yuan in 2020 to around 330 yuan now in just over a year. In order to maintain this advantage, BYD hopes to use this approach to manage employee market value and establish such an incentive system to consolidate and attract talent. BYD employee stock ownership plan has set a lock-up period limit of 3 years to unlock in batches, and the corresponding performance assessment is that the year-on-year growth of operating income in 2022, 2023 and 2024 is not less than 30%, 20% and 20%. From 2019 to 2021, BYD's operating income growth rate is -1.78%, 22.59%, 38.02%, only according to the trend, the employee stock ownership plan 20%, 30% revenue growth rate seems not difficult to complete. However, in April 2022, BYD fully switched to electrification and announced the cessation of the fuel vehicle business line, which may have an unavoidable impact on the short-term business. BYD cumulative sales in 2021 are 740,000 vehicles and 136,300 fuel vehicles, still accounting for 18.4% of sales. The sudden cessation of the fuel vehicle business line in this year's revenue impact is also difficult to completely erase. For the revenue target of 2022, BYD's target given in the performance assessment of the employee stock ownership plan is to increase by 30%, which is linked to the unlocking of 30% of the shareholding share. Under the promotion of the $0 employee stock ownership plan, employees who participate in the stock ownership plan will make revenue growth the primary goal. Even under the premise of stopping the fuel business, it can also maximize the protection of BYD to continue the previous explosive growth rhythm.
In November 2022, the General Office of the State-owned Assets Supervision and Administration Commission of the State Council issued the "Guidance on the Operation of Backbone Employee Stock Ownership in State-owned Holding Mixed-Ownership Enterprises based on Science and technology Enterprises on the basis of summarizing the work practice of employee stock ownership in State-owned enterprises. From the basic operation process, plan formulation and implementation promotion, supervision and management and other related aspects of the operation points, further refine, standardize and clarify the work requirements for employee stock ownership, further specify the direction for employee stock ownership and provide practical guidance. According to the public data of the China Association of Automobile Manufacturers, China's automobile production and sales volume in 2022 will be 27.02 million and 26.86 million, respectively, up 3.4% and 2.1% year-on-year. Among them, the production and sales of new energy vehicles were 7.06 million and 6.89 million, respectively, an increase of 96.9% and 93.4%, ranking first in the world for eight consecutive years. The outbreak of sales data is inseparable from the support of national policies. In 2022 alone, the state has issued a number of favorable policies such as "Opinions on Financial support to do a good job of carbon peak carbon neutrality", "Announcement on the continuation of the policy of exempting new energy vehicles from vehicle purchase tax", and "Notice on issuing the budget of energy conservation and emission reduction subsidy funds in 2023 in advance". But the promise of new energy vehicles goes far beyond that. As the main direction of the development of the global automobile industry, new energy vehicles, in the context of the "dual carbon" goal, Guotai Junan expects that the global sales of new energy vehicles will reach about 13 million in 2023, while the domestic sales of new energy vehicles will reach about 9 million in 2023. In the face of such a huge new energy vehicle market, enterprises themselves have also designated a series of relevant policies to deal with the corresponding risks and challenges.

![Fig. 2 BYD revenue changes from 2022 to 2023.](image)

5.2. The effect analysis of implementation

Because there is no set of common standards between enterprises and the influencing factors cannot be completely eliminated, which will lead to inaccurate effects and data, we only made an analysis of BYD in this paper. Profitability refers to the ability of an enterprise to obtain profits, which is the basis of the existence and development of a company. In the long-term operating performance of an enterprise, operating profit margin, sales gross profit margin, net profit margin on sales, return on total assets, return on equity and so on are important indicators for the profitability analysis of an enterprise. On this basis, this time selected some key indicators of sales net profit rate, operating profit rate and return on equity these three, after analysis, and strive to make a comprehensive and accurate evaluation of BYD's profitability. Net profit rate on sales is the most direct method to reflect the profit situation of a company, which can be used to measure the net profit of a company from sales revenue; operating profit rate is a measure of the operating efficiency of an enterprise, it refers to the proportion of operating profit in sales revenue. In terms of describing the level of corporate profit, return on equity is the most important indicator, which can be used to measure the efficiency of the company in using its own capital, and it can also represent the level of shareholders' equity of the company. As
shown in Fig. 2, the most recent five quarters, BYD sales net interest rate and operating margin growth, especially in the second quarter of 2022 after the implementation of employee stock ownership plan, the third quarter of 2022 net rate from 1.21% to 4.88%, operating profit margin growth also increased significantly, it shows that the implementation of the employee stock ownership plan makes BYD profitability improved in a short time, and five quarters has been maintained in a relatively good level. Through the above analysis, it can be seen that BYD ESOP has a significant effect in a short time in improving the profitability of the enterprise, and plays a positive role in improving the net profit rate of sales, operating profit margin and return on equity.

The operation ability of an enterprise not only refers to the operation ability of the enterprise, but also refers to the effective use of various capital of the enterprise, so as to obtain profits. The purpose of the company's operating capacity index is to show the situation of the company's capital operation and circulation, and can reflect the efficiency level of the company's management and utilization of economic resources. We will analyze the changes of BYD's operating capacity from three aspects: inventory turnover, accounts receivable turnover and total asset turnover.

![Fig. 3 Changes in BYD operating capacity from 2022 to 2023.](image)

![Fig. 4 BYD asset-liability ratio changes from 2022 to 2023.](image)

Inventory turnover is an important indicator of a company's sales volume and inventory, which is high the company's inventory liquidity is good. As can be seen from Fig. 3, BYD's inventory turnover was at a low level before the implementation of the ESOP. 20, after the implementation of the ESOP in the second quarter of 2022, the company's inventory turnover improved and reached its peak in the third quarter of 2022, greatly improving compared with the first quarter of 2022. From this, we can see that the implementation of ESOP has effectively improved the sales and inventory management ability of the company, which benefits that the implementation of ESOP plays an incentive role and increases the initiative and enthusiasm of employees. Accounts receivable turnover rate is an index reflecting the turnover speed and management efficiency of enterprise accounts receivable. The total asset turnover rate is an index to measure the company's income creation, and also an important indicator of the company's operation and management ability. As can be seen from Figure 3 above, BYD's accounts receivable turnover maintains an upward trend, while the total asset turnover is relatively stable, indicating that the implementation of the ESOP plays a certain auxiliary role in
the improvement of the company's operating capacity. Through the above analysis, it can be seen that the implementation of BYD employee stock ownership plan has been of great help to improve the company's sales and inventory management level, and to improve the company's inventory turnover speed. The main indicators of a company's short-term solvency include quick ratio, current ratio, and cash ratio, while the main indicators for measuring long-term solvency include asset liability ratio. Therefore, in this section, we will conduct a detailed study and analysis of BYD debt repayment ability from two aspects: current ratio and asset liability ratio.

Long-term debt capacity is the ability of a company to assume and guarantee its long-term debt. The asset-liability ratio is the percentage of the total liabilities and the total assets. The lower the ratio indicates, the lower the proportion of the funds provided by the debtor in the total capital of the company, and the financial risk borne by the enterprise is relatively small, which is beneficial to the development and stability of the enterprise. The asset-liability ratio can not only measure the long-term solvency of the enterprise, but also reflect the asset quality of the enterprise. This paper chooses the asset-liability ratio to analyze the long-term debt capacity of BYD gold for five quarters. Seen from Fig. 4, BYD's asset-liability ratio has increased in the past five quarters, mainly due to the significant increase in the number of pre-sale vehicles. This shows that although the implementation of the ESOP improves the operation and profitability of the enterprise, it increases the debt pressure of the enterprise and expands the financial risk of the enterprise before the full delivery of the automobile. Therefore, enterprises should even formulate corresponding coping strategies to maintain the stability of enterprise operation.

![Fig. 5 Change trend of input cost of BYD 2022-2023.](image)

In essence, technological innovation is a kind of human innovation, which requires intellectual input. In the process of new technology development and innovation, automobile companies must have a group of high-tech and high-quality researchers, so as to ensure the efficiency of their research work, and can enable the market competitiveness of the company to be continuously enhanced. In order to improve its research and development level, the company must carry out large-scale research and development, and the basis of these research and development is that the company has sufficient researchers to carry out research and development. Therefore, in order to attract and retain high-quality research talents, enterprises need to pay high salaries for researchers, and in addition, they need to establish a long-term incentive mechanism to make continuous innovation. And employee stock ownership plans can be given to. While paying more generous rewards to the core R & D talents, it can also form a long-term incentive mechanism to stimulate their innovation awareness and potential. This also at the same time makes employees form a sense of ownership, increase their loyalty and confidence in the enterprise, so as to further improve the company's scientific research ability. Enterprises to carry out research and development innovation, we need a lot of research and development costs. The investment in research and development costs also reflects how much cost that enterprises are willing to invest in research and development. As presented in Fig. 5, BYD in the implementation of employee stock ownership plan in the five quarters of research and development costs and proportion into a steady rising trend, involved in employee shareholding more and more
research and development personnel, and the company of research and development cost is higher and higher, it shows that the number of researchers to participate in the stock ownership plan and research and development costs into a positive relationship. In the second quarter of 2022, r & D expenses increased by 70 million yuan compared with the first quarter, and the proportion of R & D expenses for operating revenue was 3.6%. By the first quarter of 2023, BYD's R & D spending was more than tripled from the first quarter of 2022 to 623 million yuan. This shows that the implementation of BYD's employee stock ownership plan has had a positive impact on the research and development, and promoted the development of the enterprise.

At the same time, we conducted the effect analysis of the short-term market, and adopted the event research method to analyze the short-term market reaction caused by observing the changes of excess yield (AR) and cumulative excess return (CAR) in the selected window period. To ensure the accuracy and effectiveness of the study, three conditions should be assumed: the financial market is effective; the studied event is not expected by the market; and there is no mixed effect of other events during the window of the event. The first is to define the event day, the event day of this article is the announcement day of BYD employee stock ownership plan (draft) and summary. April 22, 2022, but since the release date is the evening of 22 and the stock market was closed on Saturday and weekend, the start date of the event date is set as April 25, 2022, and the 10 trading days before and after the company announced the employee stock ownership plan are selected as a time window, expressed as "-10,10". The estimation window is used to estimate the link between the yield of a stock and the yield of a stock index without affecting something. Usually, if the set time is relatively long, the calculation results can be more consistent with the actual situation. However, if it is set for too long, the estimation window will be unclean, so the 65 trading days before the release date of the ESOP will be used as the estimation window, expressed as "-65, -5".

Secondly, the market return model is established to calculate daily excess return and cumulative excess return to determine the impact of employee stock ownership plan on the company's stock price. The specific steps are:

- Calculation of daily return: daily return Rin is the ratio of change in BYD's closing price of the day compared with the closing price of the previous day.
- Calculate the expected return Ert: The expected return is the expected return that BYD can achieve every day. This paper uses the market model to calculate the expected return. Since the composition of BYD belongs to the Shenzhen 100, the expected yield of BYD ERt is equal to the Shenzhen 100-day yield Rmt, that is, the closing price of the day of the Shenzhen stock exchange BYD. The ratio of changes in the previous day's closing price.
- Calculate excess yield AR: BYD's excess yield is how much BYD's daily yield is more than the expected return.
- Calculate cumulative excess yield: BYD cumulative excess yield is the sum of BYD excess yield AR in the window period.

As shown in Table 6 and Fig. 6, according to the above market return model, we observe the excess yield and cumulative excess yield before and after the release of BYD ESOP, so as to analyze the scale of R & D investment.

![Fig. 6 Comparison of excess yield and cumulative excess yield.](image-url)
Table 6. Observation data of excess yield and cumulative excess yield.

<table>
<thead>
<tr>
<th>Window</th>
<th>Rit</th>
<th>Erit</th>
<th>AR</th>
<th>CAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>-7</td>
<td>0.995129</td>
<td>0.985036</td>
<td>0.010094</td>
<td>0.010094</td>
</tr>
<tr>
<td>-6</td>
<td>1.018101</td>
<td>1.011198</td>
<td>0.006903</td>
<td>0.016997</td>
</tr>
<tr>
<td>-5</td>
<td>0.978905</td>
<td>0.996243</td>
<td>-0.01734</td>
<td>-0.00034</td>
</tr>
<tr>
<td>-4</td>
<td>1.012278</td>
<td>1.003039</td>
<td>0.009239</td>
<td>0.008898</td>
</tr>
<tr>
<td>-3</td>
<td>1.02409</td>
<td>0.992349</td>
<td>0.031742</td>
<td>0.04064</td>
</tr>
<tr>
<td>-2</td>
<td>0.987421</td>
<td>0.978649</td>
<td>0.008772</td>
<td>0.049412</td>
</tr>
<tr>
<td>-1</td>
<td>0.967987</td>
<td>0.978069</td>
<td>-0.01008</td>
<td>0.03933</td>
</tr>
<tr>
<td>0</td>
<td>1.005811</td>
<td>1.003308</td>
<td>0.002503</td>
<td>0.041833</td>
</tr>
<tr>
<td>1</td>
<td>0.96644</td>
<td>0.945973</td>
<td>0.020467</td>
<td>0.0623</td>
</tr>
<tr>
<td>2</td>
<td>1.018945</td>
<td>0.99097</td>
<td>0.027975</td>
<td>0.090275</td>
</tr>
<tr>
<td>3</td>
<td>1.013804</td>
<td>1.040326</td>
<td>-0.02652</td>
<td>0.063754</td>
</tr>
<tr>
<td>4</td>
<td>0.987107</td>
<td>1.001058</td>
<td>-0.01395</td>
<td>0.049803</td>
</tr>
<tr>
<td>5</td>
<td>1.047504</td>
<td>1.034081</td>
<td>0.013423</td>
<td>0.063226</td>
</tr>
<tr>
<td>6</td>
<td>1.023868</td>
<td>0.995182</td>
<td>0.028687</td>
<td>0.091912</td>
</tr>
<tr>
<td>7</td>
<td>0.97299</td>
<td>0.975843</td>
<td>-0.00285</td>
<td>0.089059</td>
</tr>
<tr>
<td>8</td>
<td>0.961376</td>
<td>0.98924</td>
<td>-0.02786</td>
<td>0.061196</td>
</tr>
<tr>
<td>9</td>
<td>1.002578</td>
<td>1.000078</td>
<td>0.0025</td>
<td>0.063966</td>
</tr>
<tr>
<td>10</td>
<td>1.083015</td>
<td>1.012939</td>
<td>0.070077</td>
<td>0.133773</td>
</tr>
</tbody>
</table>

The event date of "zero cost" ESOP is April 2022. As can be seen from Table 6, BYD's AR fluctuated around 0 throughout the whole window period, but CAR has been showing an upward trend and remained stable. On the event day, BYD's employee stock ownership plan announcement on the company's AR and CAR continued to rise. To sum up, because BYD did not make other important announcements during the selected ESOP window period, it can be considered that the stock price changes during the window period were caused by the release of the ESOP plan. From the above implementation, BYD's employee stock ownership plan sent a positive message to the outside world and received a good response, but this response lasted very short, so it had a positive impact on the stock market in the short term.

![Fig. 7 BYD profit and loss category changes from 2022 to 2023.](image)

In the principal-agent relationship, the managers and the owners, and the managers' control over the company is stronger than the owners. In this case, because the manager is only the principal of the owner, they will often ignore or harm the interests of the whole company, thus increasing the agency cost of the company. Therefore, the power of managers to reduce the agency cost of the company is a subject to study. In the employee stock ownership plan, it proposes an effective method to solve this problem. In the time of employee shareholding, the role of the employees from the
operator into the company, this can adjust the conflict between the employees and enterprise interests, and can allow employees to maintain their rights and interests at the same time, a third party regulatory effect, to better optimize the company's internal governance structure. By analyzing the asset turnover rate and management expense ratio of the enterprise, one can measure the principal-agent cost of the enterprise.

According to Fig. 7, it can be seen that BYD's main business revenue showed a continuous growth trend in the five quarters from 2022 to 2023, and the administrative expenses also maintained a continuous upward trend, breaking through three. One billion mark, but the management expense ratio generally showed a stable trend. Through the analysis, BYD's statements and various announcements show that the significant increase in administrative expenses in the five quarters was due to the increase in payments, employee compensation and employee stock ownership plan expenses. Amount increase is the worker compensation, from moreover, BYD management expenses "other" subject amount is also increased significantly, but the management expense rate increase is far less than the increase of management costs, on average at 2.5%, in the enterprise scale management cost under the background of expansion, keep relatively stable management expense ratio also shows that the enterprise own management level. According to the research and analysis of the above contents, we can find that after the implementation of the ESOP, the employees become the shareholders of the company and enjoy the value-added income of the stock. This not only increases the economic benefits of employees, but also makes them more closely connected with the interests of the company, and promotes the development of the enterprise.

BYD ESOP can help improve employees' enthusiasm and creativity, and increase their loyalty and sense of belonging to the company. At this time, it also reflects the company's humanistic care and vision and employees to share the fruits of the enterprise development concept. BYD tube cost ratio present smooth situation, also shows that the implementation of the employee stock ownership plan improves the employee consciousness, the operator for the pursuit of their own interests and damage the overall interest behavior has played the role of constraint and supervision, thus reducing the cost of the enterprise agent, has played a good corporate governance effect.

6. Conclusion

Based on the analysis, BYD's "zero cost" employee stock ownership incentive plan has advantages but also has corresponding challenges. As a typical knowledge-intensive and technology-intensive industry, new energy vehicle research and development has a certain dependence on scientific and technological innovation and high-end talents, and BYD will naturally face the same challenges. But in today's fierce talent competition, the long-term benefit-sharing mechanism brought by holding shares in the company can attract those talents who have a long-term vision and are willing to make efforts for the development of the company. At the same time, ESOP plans can also reduce employee turnover rate and improve employee loyalty and stability. However, the return of the shareholding plan is also uncertain. If BYD's employee stock ownership plan does not meet the ideal performance expectations, or the revenue target meets the expectation, but the profit and stock price decline, it is likely to generate negative feedback in the secondary market.

The company can give the following suggestions for flexibly using the ESOP according to its own situation. First of all, enterprises also need to provide corresponding training and guidance for ESOP plans to help employees better understand and use equity, and enhance their equity awareness and business philosophy. Secondly, the ESOP requires certain management and supervision mechanisms to ensure the fairness and transparency of the plan. Therefore, when implementing the ESOP, the company needs to take into account the economic ability and risk tolerance of its employees, and establish a sound management and supervision mechanism. At the same time, employees also need to treat the shareholding plan rationally and make reasonable investment decisions according to their personal circumstances. Through the advantages and disadvantages of the company, the following points can be extracted as the future company in the industry for reference. First, the incentive
principle of high performance and high goals. For most of the growth period, especially the enterprises with broad prospects, we should support the corresponding high performance assessment targets to avoid lying down and stabilize the incentive effect. The second point is the incentive model. On the one hand, the supervisors and other members can also be called the incentive objects. And the senior executives of the company will not be subject to the restriction of 25% annual reduction after granting the equity. However, to take this measure, the company should also set up reasonable countermeasures and restrictive measures.

Author Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References


