The Impact of ESG Disclosure on Corporate Financial Performance: A Case Study of Kweichow Moutai

Xiaozhuo Gao *

Business School, Sichuan University, Chengdu, 610064, China

* Corresponding Author Email: xiaozhuogao@stu.scu.edu.cn

Abstract. In recent years, ESG has gradually gained attention from both the government and enterprises. Concepts such as green finance and the national dual carbon initiative have been proposed, and people are increasingly aware that good ESG information disclosure can, to some extent, eliminate information asymmetry between internal and external stakeholders of a company, thereby facilitating positive decision-making by investors. Conversely, poor ESG information disclosure is likely to affect a company's market performance, as evidenced by Moutai's stock price plummeting when its ESG rating was downgraded to the lowest level in 2021, while its market performance improved after optimizing carbon information disclosure. This study selects data from 2021 to 2024 and employs methods such as short-term event study and accounting indicators method to investigate the impact of the quality of ESG information disclosure on corporate financial performance. Research indicates that carbon information disclosure has a significant impact on corporate stock prices in the short term and will also affect various financial indicators of the company to a certain extent in the long term, collectively influencing corporate financial performance.

Keywords: ESG Disclosure, Corporate Financial Performance, Kweichow Moutai.

1. Introduction

ESG is an abbreviation for Environmental, Social, and Governance in English. The scale of ESG investment is growing at an astonishing rate globally. Against the backdrop of national dual carbon goals, rural revitalization, and green finance strategies, ESG has gradually gained attention. On April 12, 2024, the Shanghai, Shenzhen, and Beijing stock exchanges officially released the 'Guidelines for the Sustainable Development Reports of Listed Companies,' clarifying that certain eligible listed companies should disclose their first 'Sustainable Development Report' for the year 2025 by no later than 2026, and outlining specific topics, disclosure frameworks, and data point requirements. Indicates that ESG disclosure is gradually transitioning from a voluntary disclosure era to a mandatory disclosure era.

2. Literature review

Listed companies can achieve significant returns in terms of corporate reputation, sales volume, and capital investment through high-quality ESG disclosure, thereby promoting improvements in profitability, debt repayment, operational capacity, and development capabilities. However, such disclosure may also increase capital expenditures to a certain extent, thereby affecting the company's ability to repay debts [1]. Why can companies enhance their reputation through this means? The main reason is that it can reduce information asymmetry between external and internal stakeholders, thereby boosting investor confidence, leading to higher stock returns and enhancing corporate value creation [2].

High-quality ESG disclosure must maintain its authenticity; researchers indicate that the consistency between ESG disclosure and ESG performance can positively influence corporate value, and this effect is more pronounced in non-state-owned enterprises and companies [3]. In state-owned enterprises, good ESG performance can lead to more government subsidies, thus its positive impact on financial performance is more pronounced. Moreover, digitalization is continuously adjusting this effect to a more appropriate level [4]. Investor decision-making, as an intermediary, is directly related to corporate financing and plays an important role in transmitting the impact of carbon information disclosure quality on corporate performance; however, there are also instances where the former has a direct positive effect on the latter [5]. When it further introduces media supervision, researchers have found through empirical analysis that ESG information disclosure can significantly alleviate financing constraints, and media supervision promotes this alleviation, thereby creating a remarkable balance among these three main entities [6]. At the same time, ESG disclosure has a certain restraining effect on corporate violations, thereby enhancing the safety of corporate development and more stably improving corporate financial performance [7].

However, some researchers have found through hierarchical regression analysis that there is a negative correlation between ESG disclosure and financial performance, while the quality of ESG itself has a positive effect on financial performance [8]. From the very concept of ESG, its existence extends the value paradigm from economic value to social and environmental value, thereby shifting the drivers of value from internal exploration to external collaborative evolution. This concept promotes the continuous development of inclusive finance, further driving the transformation of traditional financial management functions such as investment and financing. When investing, companies pay more attention to green indicators, thereby reducing expenditures, optimizing asset allocation, achieving greater surplus, reaping more sustainable value, and attaining better financial performance [9].

However, it is important to note that while numerous studies indicate that ESG disclosure can lead to improved financial performance, this does not mean that merely organizing and disclosing indicators in sustainability reports will have a direct and significant impact on financial performance. Instead, these indicators must be externalized into actions to yield noticeable benefits [10].

In the third quarter of 2021, Moutai's ESG rating was downgraded by MSCI from B to CCC, leading to significant sell-offs by foreign investors and a sharp decline in stock price. On August 28, 2024, its ESG rating rose to BBB, ranking third in China's beverage industry; evidently, Moutai has shown good development momentum in recent years. Based on the broader environment and he phenomenon of Moutai, this paper conducted research on the relationship between the quality of ESG disclosure and corporate financial performance.

Analyzing the pathways through which the quality of ESG disclosure affects financial performance from the perspectives of information asymmetry theory, signaling theory, reputation theory, and stakeholder theory. Using the accounting metrics method to analyze the company's financial reports, and employing the event study method to analyze the stock price of Moutai before and after voluntary ESG disclosure, observing the changes in the company's ESG rating before and after disclosure to explore the effect of ESG disclosure quality on financial performance.

3. Case Analysis

3.1. Company Overview

Guizhou Moutai Distillery Co., Ltd. is the core enterprise of Guizhou Moutai Distillery (Group) Co., Ltd. Moutai liquor is its main source of income, achieving revenue of 68.567 billion yuan in the first half of 2024. In the overall baijiu industry, Guizhou Moutai has a relatively high market share, reaching 15.19%. In the segment of sauce-flavored liquor, when the total market size surpassed 100 billion yuan, it captured 60% of the market share.

3.2. Guizhou Moutai Co., Ltd. ESG Information Disclosure Status

3.2.1. Disclosure of Environmental (E), Social (S), and Governance (G) related information

By researching the carbon footprint of its products, setting targets to control greenhouse gas emissions, and refining energy-saving measures to specific processes, it aims to promote energy conservation and carbon reduction, with an expected reduction of over 20% in carbon emissions across the entire industry chain for each bottle of Moutai by 2030. The baijiu industry requires a significant amount of water resources and is prone to causing water pollution. Moutai effectively removes organic matter, suspended solids, and other pollutants from wastewater using various methods, including physical, chemical, and biological techniques. It is expected that by 2030, the water consumption for the entire Moutai supply chain will be reduced by over 30% for each bottle produced. At the same time, it has also implemented measures such as constructing ecological protective forests and building ecological wetlands to protect biodiversity.

By establishing a matrix quality control mechanism and refining the 'spatiotemporal method' quality management model to enhance quality monitoring, Moutai's base liquor qualification rate has consistently approached 100% in recent years. Adhere to the 'Five-in-One Marketing Method' to provide better services for consumers and protect their rights. Female workers stepping barefoot on the dough not only ensures the quality of the liquor but also reflects trust and respect for female employees. Even in the scorching heat, Moutai organizes summer cooling activities to care for employees' health. Actively engage in public welfare by establishing charitable funds in areas such as culture, elder care, and education, such as launching the 'China Moutai Pillars of the Nation' Hope Project Dream Realization Initiative.

Strictly comply with relevant laws and regulations, improve the corporate governance structure, revise and improve the 'Articles of Association' and 'Rules of Procedure for Board Meetings', enhance incentive mechanisms and salary management, and incorporate performance, safety, environment, and business ethics into assessments. Various measures have led to an increase of 0.3 points in its ESG rating score for corporate behavior topics in 2024 compared to last year.

3.2.2. Current status of Guizhou Moutai's ESG disclosure rating

MSCI has a wide influence, rating over 8,500 companies globally, including more than 600 A-share listed companies within its rating scope. Its mature rating system makes MSCI's rating of Guizhou Moutai a suitable choice for assessing its information disclosure rating status.

As an industry with high environmental consumption, Guizhou Moutai initially faced shortcomings in its ESG practices. Its responses to wastewater discharge and pollution treatment were not very mature. In July 2021, its ESG rating was downgraded by MSCI to the lowest rating of CCC, making it the lowest-rated company among the top 20 companies by market capitalization globally, which caused significant public concern. According to information from China Securities Journal Zhongzheng Network, after Guizhou Moutai released its first ESG report in March 2022, its ESG rating was upgraded to B by MSCI in August 2022, and this rating was maintained in 2023. On August 28, 2024, Guizhou Moutai was upgraded to a BBB rating by MSCI (see Figure 1). This achievement is remarkable, not only because this rating is the highest in the domestic baijiu industry, but also because typically only 20% of companies can improve their ESG rating by one level within a year, and cases like Guizhou Moutai that can leap two levels are less than 1%.

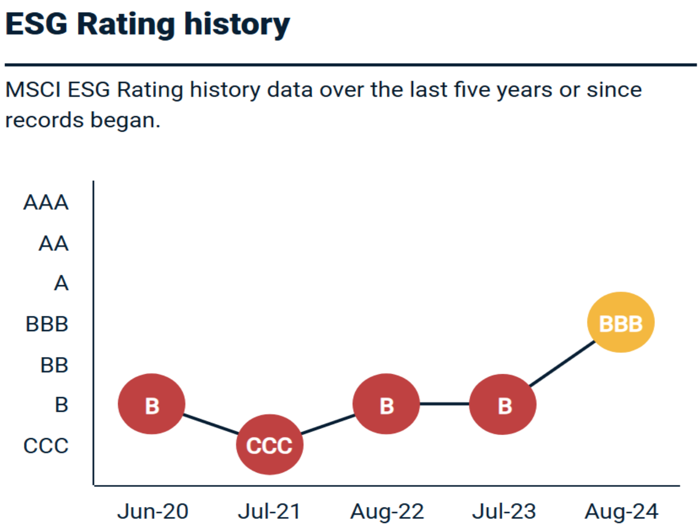

Figure 1. MSCI ESG Ratings of Guizhou Moutai from 2020 to 2024

3.3. Market Reaction to ESG Disclosure

For a specific event, it is necessary to obtain some data to determine the financial market's perception of its occurrence. For listed companies, stock trading is an important channel for obtaining financing from the public; therefore, the corresponding data is often linked to stocks, and changes in stock prices often reflect changes in a company's value.

Thus, to further analyze the impact of Guizhou Moutai's ESG disclosure quality on its financial performance, the event study method is employed to calculate the cumulative abnormal return (CAR) during this period, reflecting the market reaction during this time.

3.3.1. Defining the event window period and estimation period

In the study, the time period that most reflects the impact of ESG disclosure on the company is defined as the event window period, as this event is unexpected, and a short-term reaction can best reveal the 'clue.' Therefore, the day of the event and the day before and after it, a total of three days, are defined as the event window period.

Examining the stock price prior to the event is beneficial for estimating the normal fluctuations of the stock price during the company's regular development, thereby more clearly reflecting the anomalies brought about by the event. Thus, the period from 110 days before the event to 10 days before the event is defined as the event estimation period (see Table 1). The reason for excluding the period from 10 days before the event to 1 day before the event is to maximize the avoidance of the impact caused by any potential prior disclosure of the event.

Table 1. Event window period and estimation period

event occurrence date	event window period	event estimation period
August 28, 2024	[-2, +2]	[-210, -11]

(Note: t_0=0, recorded as August 28, 2024)

3.3.2. Obtaining necessary data using specific formulas

First, the firm return for Moutai during the event estimation period and window period is calculated using (previous day's closing price - next day's closing price) / previous day's closing price, and the corresponding Shanghai Composite Index return (market return) is obtained using the same method.

Then, using the market model method, a regression model is constructed to fit the market risk coefficient β and the risk-free return α during the event estimation period based on the market return and firm return.

$$R_{it} = \alpha + \beta_i R_{MT} + \gamma_{IT} \tag{1}$$

Next, import into Excel software and the CAPM model to obtain the result, as shown in Figure 2.

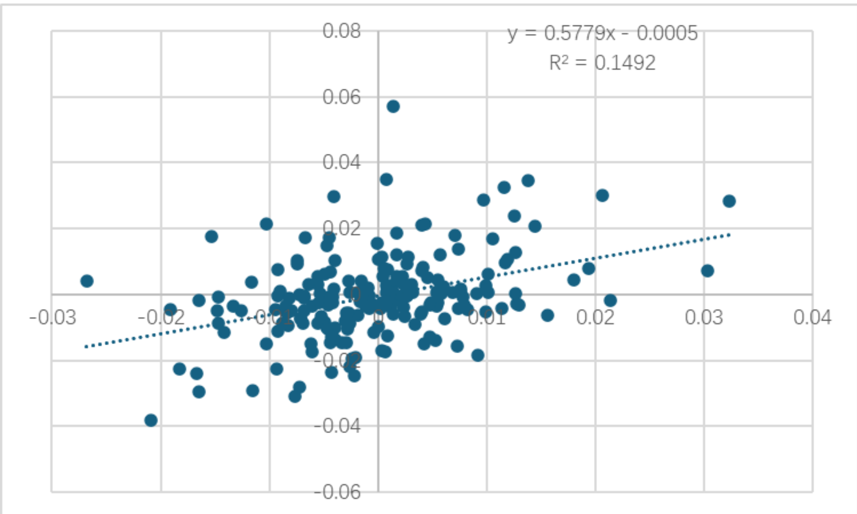

Figure 2. Guizhou Moutai Event Estimation Period Regression Fitting Chart

The expected rate of return for the window period is calculated using the obtained y=0.5779x-0.0005, where y refers to the stock's return R_{it} on specific days, and x refers to the overall market return R_{MT} on those days.

Then, the actual rate of return for each day is subtracted from the expected rate of return for that day to obtain a difference AR (see Table 2), as per the formula:

$$AR_{it} = R_{it} - R_{it} \tag{2}$$

Table 2. Actual and expected rate of returns

Date	event window period	Shanghai Composite Rate of Return	Actual Rate of Return	Expected Rate of Return	AR
8.26	-2	0.0402%	-0.2113%	-0.1845%	-0.1845%
8.27	-1	-0.2378%	-0.5616%	-0.1874%	-0.3742%
8.28	0	-0.3967%	-1.0733%	-0.2792%	-0.7941%
8.29	+1	-0.5047%	1.7495%	-0.3417%	2.0911%
8.30	+2	0.6766%	2.1149%	0.3417%	1.7739%

Data Source: Compiled from Eastmoney.com

Finally, the cumulative abnormal return CAR for each day is obtained by summing all ARs within the window period (see Figure 3), which is:

$$CAR_{it} = \sum_{T1}^{T2} AR_{it} \tag{3}$$

Among them, T1 represents the start date of the event window period, and T2 represents the end date.

Achieved CAR_{t-2}= -0.1846%; CAR_{t-1}=-0.5588%; CAR_t=-1.3529%; CAR_{t+1}=0.7383%, and CAR_{t+2}=2.5121%.

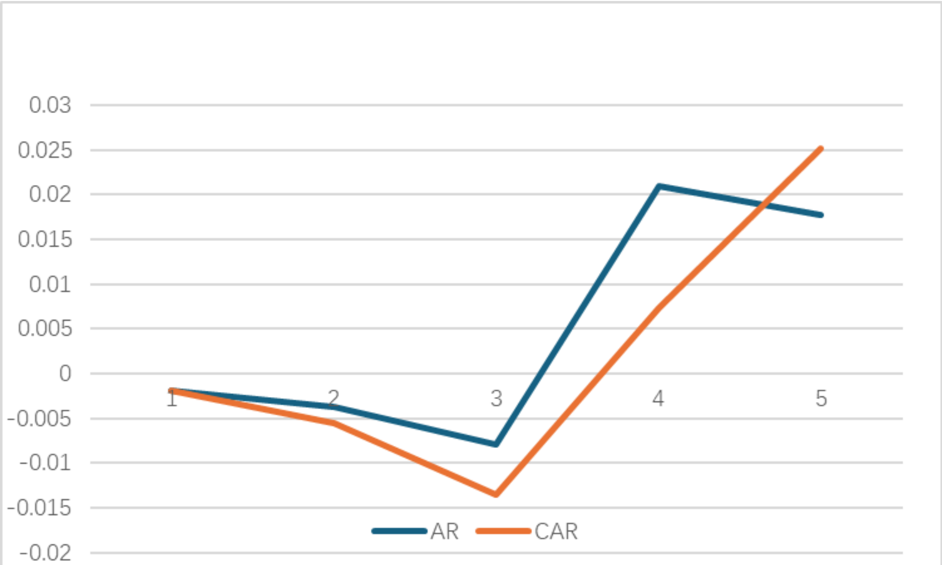

Figure 3. AR and CAR trend chart during the event window period of Guizhou Moutai

3.3.3. Analysis

During the period t = (-2,0), the difference between the actual rate of return and the expected rate of return (AR) and the cumulative abnormal return (CR) of Guizhou Moutai showed a downward trend, but after MSCI upgraded Moutai's ESG rating to BBB on August 28, there was a significant increase during t = (0, +2). Moreover, the increase in AR and CAR was significantly greater than their previous decline. It can be seen that when the quality of Moutai's ESG disclosure improves, it boosts individual investors' confidence in Moutai's development, making them willing to invest more funds. Through this market reaction study, it can be observed that the improvement in ESG disclosure quality can yield short-term positive market feedback, and better market performance leads to increased capital investment, which in turn contributes to the positive development of financial performance.

3.4. The Impact of ESG Disclosure Quality on Finance

3.4.1. The impact of ESG disclosure on corporate profitability

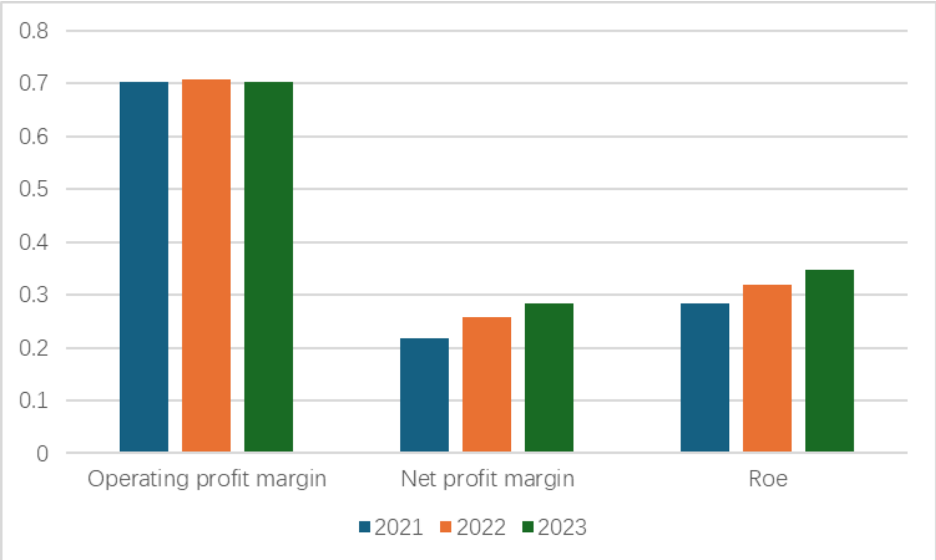

Figure 4. Profitability ratios of Guizhou Moutai (Data Source: CSMAR)

As Figure 4 shown, the net profit margin reflects how much profit can be generated from each yuan of revenue, while the operating profit margin reflects the profitability of core business operations. According to stakeholder theory, the return on equity is also worth paying attention to for the public when assessing corporate value. As can be seen from the chart, the operating profit margin is relatively stable, while the net profit margin and return on equity have improved. Combined with Moutai's ESG report, Moutai's initiatives related to 'S' may evoke emotional recognition from consumers, thereby driving wild consumption. Meanwhile, its initiatives in the 'E' and 'G' sections will reduce certain resource consumption and lower costs, thereby preparing for an increase in the net profit margin. In 2022, its ESG rating improved, and in 2023 it remained unchanged, which conveys positive information to investors. According to reputation theory, this is beneficial for maintaining the company's social evaluation and enhancing consumer desire.

3.4.2. The impact of ESG disclosure on corporate operational capability

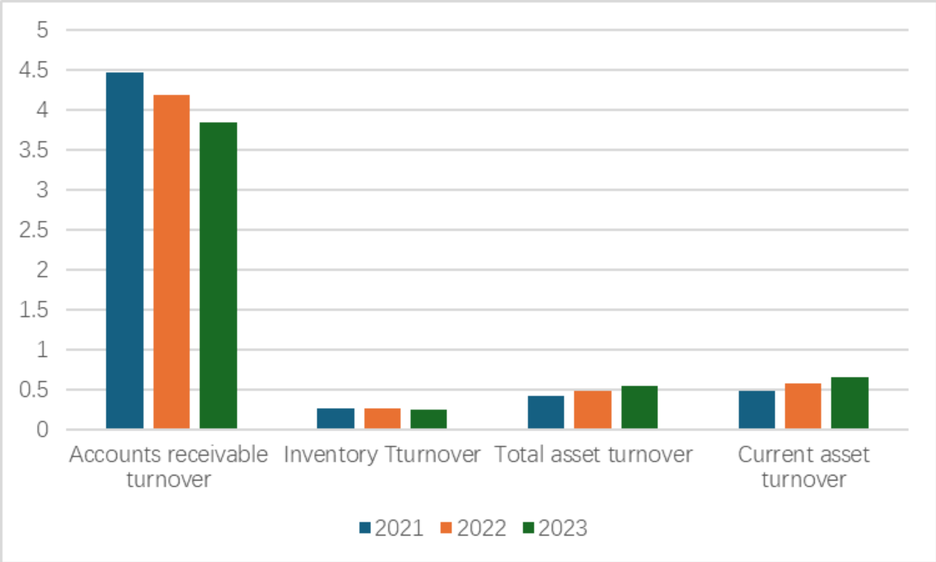

Figure 5. Efficiency ratios of Guizhou Moutai (Data source: CSMAR)

Corporate operational capability reflects its resource utilization efficiency and operational efficiency. Among the four selected key indicators, except for the accounts receivable turnover rate which has decreased, the other three are on an upward trend. However, the accounts receivable turnover rate also involves other parties such as buyers, and a decrease in the efficiency of collecting accounts receivable does not necessarily indicate a significant decline in a company's operational capability. As Figure 5 shown, the total asset turnover ratio and the current asset turnover ratio reflect the overall efficiency of asset utilization and the efficiency of current asset utilization, respectively. A high current asset turnover ratio indicates a higher efficiency of converting inventory into sales revenue, which in turn is linked to profitability. Therefore, as the quality of ESG disclosure improves, according to signaling theory, positive information disclosure helps to eliminate information asymmetry between management and stakeholders, reducing the likelihood of them making adverse decisions, thereby lowering transaction costs. Additionally, it can enhance consumer confidence by establishing a sense of social responsibility, leading consumers to make purchases that assist in the conversion of inventory into revenue, promote the rational allocation of assets, and improve the operational capacity of the enterprise.

3.4.3. The impact of ESG disclosure on corporate short-term solvency

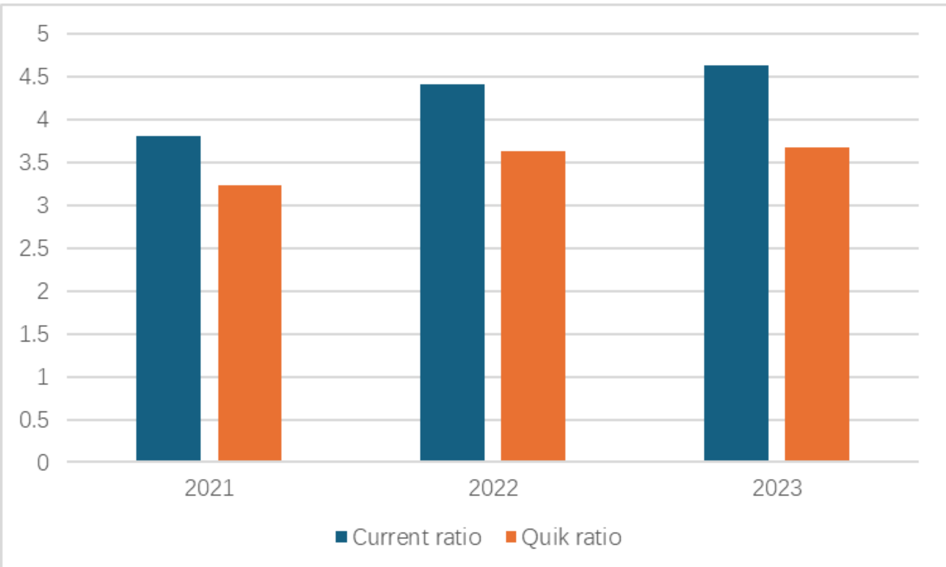

Figure 6. Short-term solvency ratios of Guizhou Moutai (Data source: CSMAR)

Since Moutai only began publishing ESG reports in 2022, the time frame is relatively short. Therefore, this paper focuses on the analysis of short-term solvency. It is not difficult to observe that from 2021 to 2023, the company's current ratio and quick ratio have both improved, indicating an enhancement in short-term solvency (see Figure 6). The relationship with ESG disclosure may be as follows: firstly, an improvement in the quality of ESG disclosure implies that the company's ability to manage risks related to environmental, social, and corporate governance will also improve, and avoiding more risks can reduce certain financial losses. Secondly, improving operational efficiency is beneficial for the flow of funds, facilitating the company's debt repayment. Finally, improved information quality is conducive to enhancing investor relations, reducing financing costs, while also making bonds more popular in the market, thereby alleviating debt repayment pressure.

3.4.4. The impact of ESG disclosure on corporate development capabilities

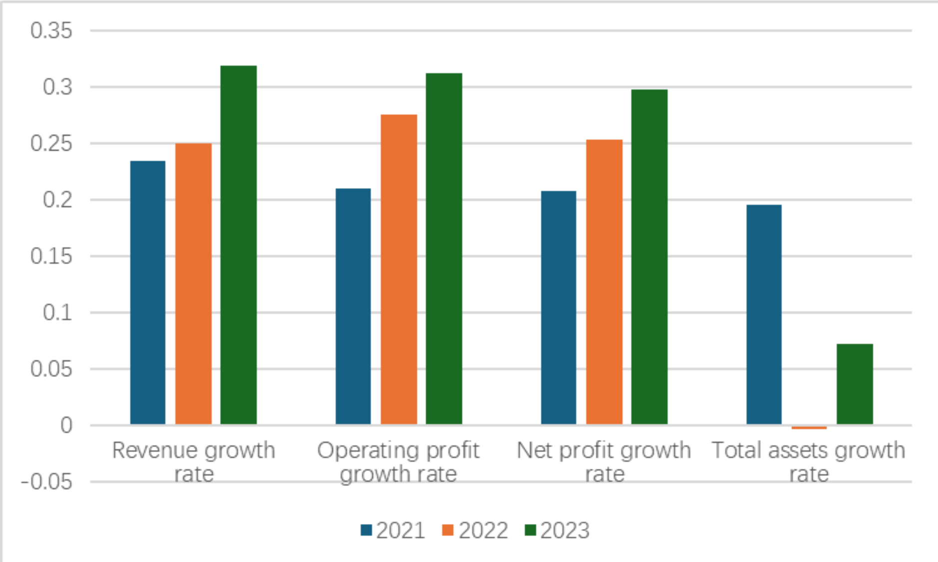

Figure 7. Growth ratios of Guizhou Moutai (Data source: CSMAR)

It is not difficult to see from the data that, except for the negative total asset growth rate in 2022 (see Figure 7), all others are positive, and the remaining three items show a significant upward trend. The improved quality of ESG disclosure may enhance development capabilities from the following aspects: from the environmental perspective, research and development of energy-saving and emission-reduction technologies can lower costs while improving market competitiveness and increasing revenue. From the perspective of S, improving employee benefits is conducive to retaining talent and promoting the long-term and efficient development of the enterprise, while public welfare activities can help maintain the company's reputation. From the perspective of G, an improved internal governance structure helps the enterprise better adapt to market changes and reduce agency costs.

4. Conclusion

This study first examined the market response under the background of significantly improved ESG ratings through a short-term event study method, revealing a positive effect on boosting investor confidence, facilitating financing, and capturing short-term interests. Then, using the accounting metrics method, this paper selected data from Moutai for the years 2021-2023 to analyze the relationship between the quality of ESG disclosure and corporate financial performance. It can be observed that various indicators are generally positively correlated with the quality of ESG disclosure, although the correlation is not very pronounced. This is partly due to the fact that ESG has not yet received absolute attention domestically, and companies may establish their reputation and solidify their consumer base through commercial advertising and other means. However, having some level of ESG disclosure quality is better than none; at the very least, it will not become a burden for the company and can have a certain degree of positive effect. Therefore, it is essential for companies to continue to emphasize their commitment to social responsibility and the quality of ESG disclosure.

Through the study of this case, it is hoped that it can provide useful references and insights for other companies when conducting ESG disclosures, encouraging them to continuously pay attention to and adapt to China's improving ESG disclosure system, while focusing on short-term interests as well as the sustainable development of enterprises. It is believed that in this process, companies can gain more advantages in the fierce market competition.

References

[1] Zhang, T. (2024). A study on the impact of carbon disclosure by listed companies on financial performance: A case study of Sinopec. Engineering Science I, (2).

[2] Xu, G., Zhuo, Y., Zhang, Y., & Zhang, J. (2022). Does ESG disclosure enhance corporate value? Financial and Accounting Communications, (4), 33 - 37.

[3] Yan, H., Li, X., Huang, Y., et al. (2020). The impact of the consistency of carbon performance and carbon information disclosure on enterprise value. Finance Research Letters, (37), 101680.

[4] Qiang, Q., Li, S., & Wang, Y. (2024). ESG performance and high-quality corporate development: Theoretical analysis and empirical testing. Journal of Hefei University of Technology (Social Sciences Edition), 38 (03).

[5] Du, X., & Wu, Y. (2016). A study on the impact of carbon disclosure on corporate value based on investor decision-making. Soft Science, 30 (9), 112 - 116.

[6] Li, Z., Shao, Y., Li, Z., & Li, M. (2022). ESG disclosure, media supervision, and corporate financing constraints. Scientific Decision-Making, (7).

[7] Li, X. (2024). A study on the impact of ESG disclosure on corporate violations. Science and Technology and Industry, 24(06).

[8] Zhang, J., Ding, R., & Lu, L. (2017). The impact of carbon disclosure and carbon performance on financial performance in the energy industry. Enterprise Technology Development, 36 (5), 96 - 97.

[9] Huang, S. (2021). Three major transformations of value creation from the perspective of ESG. Financial Research, (6), 3 - 14.

[10] Du, X. (2024). Research on the impact of ESG disclosure on the financial performance of listed companies. Modern Business, (6).