ESG Performance and Firm Growth

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Abstract: Based on the background of sustainable development, A-share listed companies from 2010 to 2021 investigate the internal relationship between ESG performance and growth of Chinese listed companies. The study found that enterprise ESG performance can effectively promote the growth of enterprises. The research provides empirical evidence for the positive role of ESG practice of Chinese listed enterprises on the growth of enterprises, and provides theoretical and practical reference for the government to guide listed enterprises to undertake social responsibilities.

Key words: ESG performance; enterprise growth; SDGs; carbon peak and carbon neutrality

1 Introduction

In recent years, the concept of corporate sustainable development represented by the ESG concept has gradually emerged. ESG is an abbreviation of the initials of environment (Environment), society (Social) and governance (Governance). It breaks the single focus on the company's financial performance in the past and integrates the company's environmental, social and governance performance into the evaluation system^[1]. The ESG concept is highly consistent with China's green and sustainable development concept at the present stage. It provides a new method and basis for economic and social transformation and development and the national two-carbon strategic goal of 'carbon peak and carbon neutrality', and is an effective tool to achieve high-quality economic development^[2].

The growth of enterprises is of great significance to the steady growth of the national economy and independent innovation, so the domestic and foreign academic circles have been paying continuous attention to the growth of enterprises. There is a definition of enterprise growth, which Du and Zhou^[3] believe refers to the development potential of enterprises to achieve sustainable development and the ability to coordinate the allocation of internal and external resources in an uncertain environment. Li and Jiao^[4] pointed out that the growth of an enterprise is the growth and development ability of an enterprise, which is manifested as the enhancement or weakening of the total assets, profit level, competitive strength and sustainable development ability of the enterprise.

Whether the enterprise can survive stably and achieve long-term development depends on the operating benefits and social benefits. Whether enterprises can improve their growth from ESG's good performance to achieve sustainable development, and what is the mechanism of their impact, which needs to be verified by empirical data.

Based on this, this paper takes China's A-share listed companies from 2010 to 2021 as the research object to empirically test the positive relationship and internal mechanism of enterprise ESG performance and enterprise growth from the micro level. No research has focused on the relationship between corporate ESG performance and corporate growth, so the main contribution of this paper is reflected in enriching and expanding the relevant areas of the economic consequences of ESG.

2 Literature Review and Theoretical Analysis

ESG performance refers to the performance of companies in Environmental (environment), Social (society), and Governance (governance), including relevant actions within the company, such as establishing an appropriate corporate governance framework, using clean energy and equipment, or making ESG disclosures. Existing research shows that ESG performance affects enterprise value^{[5][6][7]}, enterprise performance^[8] and enterprise innovation^{[9][10]}.

According to the theory of resource dependence and stakeholder, if the enterprise can obtain the support of stakeholders, it will obtain resources with relatively small risks^[11], which is the basis to ensure the continuous and stable survival and expansion of the enterprise. Enterprises' concern for human well-being and the planet environment shows a good image of corporate social responsibility, and helps enterprises to obtain the support of stakeholders. In addition, under the concept of green development, enterprises are easy to form a differentiation strategy, which will have an innovative impact on product production, service provision and the overall operation of the enterprise, so as to integrate the internal resources of the enterprise and achieve the improvement of "quality". In addition, in Penrose's enterprise growth theory^[12], the improvement of corporate governance level is an important condition for enterprise growth. ESG attaches great importance to the corporate governance framework and guides the corporate management structure to timely update, which is conducive to improving the growth ability of enterprises. Based on the above analysis, we propose the hypothesis 1

Hypothesis 1: The performance of enterprise ESG has a positive impact on enterprise growth.

3 Study Design and Research Data

3.1Sample selection and data source

Take all A-share listed companies in China from 2010-2021 as the research object, and follow the existing conventions and the following characteristics: First, excluding samples with seriously missing data and cannot be manually supplemented; then, shrink the continuous variables by 1%, and finally obtain 11746 non-balanced panel data from 2010-2021. The explanatory variable ESG performance data used the ESG score results in Bloomberg database, and the other variables were obtained from the Taian (CSMAR) database.

3.2Econometric model setting and side rates

First, to verify the research hypothesis, the following model is constructed to test the impact of ESG performance on enterprise growth:

$$growth_assets=\beta_0+\beta_1ESGi,t+\beta_2Controls+\beta_3Dummy+\epsilon \tag{1}$$

$$growth_profits=\beta_0+\beta_1ESGi,t+\beta_2Controls+\beta_3Dummy+\epsilon \tag{2}$$

among,ESG_{i,t} represents the ESG performance of enterprise i in year t, β_0 is the constant term, Controls represents the control variable, Dummy is the control omission variable of year and industry, and ϵ is the error term.

3.3 Variable selection and description

3.3.1 Explanatory variables

Enterprise growth (Growth). The growth of an enterprise is manifested by the enhancement or weakening of its profit level and sustainable development ability^[13]. The better the growth of the enterprise, the higher the market recognition of the enterprise value^[14]. This paper draws on the research of Song and Sun (2021)^[15], Liang (2015)^[16], selects financial growth as the measurement index of enterprise growth, and specifically refers to the growth rate of enterprise net profit (growth_profits) and the growth rate of net asset per share (growth_assets).

3.3.2 Interpret variables

In this paper, the ESG score of listed companies in mainland China disclosed by Bloomberg is selected as the measure of enterprise ESG performance, which mainly considers that the Bloomberg database has a longer coverage period and a more sufficient data volume, which can make the research results more reliable.

3.3.3 Control variables

According to the existing research, this paper controls for other factors affecting ESG performance, that is, setting it as a control variable, to prove that ESG behavior does have an impact on enterprise growth. They are: enterprise size (Size), asset-liability ratio (Lev), number of directors (Board), proportion of independent directors (Indip), combination of two positions (Dual), shareholding ratio of the largest shareholder (Top1), equity balance 1 (Balance1), and the four major audits (Big4).

4 Empirical results and analysis

4.1 Descriptive statistics

 Table 1: Descriptive statistical results for each variable

| Variable | Sample | Mean | Median | Standard Deviation | Min | Max |
|----------------|--------|--------|--------|-----------------------|---------|-------|
| growth_assets | 11746 | 0.058 | 0.054 | 0.265 | -0.611 | 1.360 |
| growth_profits | 11746 | -0.188 | 0.083 | 3.549 | -24.070 | 12.49 |
| ESG | 11746 | 28.740 | 27.58 | 8.910 | 12.950 | 55.91 |
| Size | 11746 | 21.950 | 21.73 | 1.425 | 19.160 | 26.92 |

| Lev | 11746 | 0.450 | 0.441 | 0.223 | 0.056 | 1.096 |
|----------|-------|-------|-------|--------|-------|-------|
| Board | 11746 | 2.151 | 2.197 | 0.215 | 1.609 | 2.708 |
| Indep | 11746 | 0.354 | 0.333 | 0.0885 | 0.000 | 0.571 |
| Dual | 11746 | 0.237 | 0.000 | 0.425 | 0.000 | 1.000 |
| Top1 | 11746 | 0.349 | 0.324 | 0.152 | 0.085 | 0.743 |
| Balance1 | 11746 | 0.359 | 0.278 | 0.292 | 0.007 | 0.996 |
| Big4 | 11746 | 0.063 | 0.000 | 0.243 | 0.000 | 1.000 |

Table 1 reports the descriptive statistical results for the main variables. The average net profit growth rate of the sample enterprises was-0.1882, the maximum value was 12.4893, the minimum value was only-24.0699, and the standard deviation was 3.5489, indicating that the growth rate of net profit of different enterprises varied greatly. The average growth rate of net assets per share of the sample enterprises was 0.0581, the maximum value was 1.3603, the minimum value was-0.6114, and the standard deviation was 0.2645, indicating that the difference in the growth rate of net assets per share between enterprises was relatively small. The mean ESG score of the core explanatory variable was 28.7377, which was not much different from the median 27.5827. The highest score was 55.9099 and the lowest score was 12.9464, indicating that the ESG practice performance of various enterprises is significantly different.

4.2 Baseline regression results

Table 2 shows the regression results based on testing the impact of ESG performance on enterprise growth based on model (1). Column (3) and (4) are the test results after adding the control variables. It can be seen that the regression coefficient between ESG performance and corporate net profit growth rate is 1.574, which is significant at the 1% level; the regression coefficient between ESG performance and enterprise net asset growth rate is 0.086, significant at the 5% level. It shows that ESG performance has a significant positive promotion effect on enterprise growth, thus supporting the hypothesis 1.

Table 2 ESG Performance and Enterprise Growth

| variable | (1) | (2) | (3) | (4) | |
|----------|---------------|----------------|---------------|----------------|--|
| | growth_assets | growth_profits | growth_assets | growth_profits | |
| ESG | 0.227*** | 2.253*** | 0.086** | 1.547*** | |
| | (6.81) | (4.81) | (2.04) | (2.75) | |
| Size | | | 3.040*** | 29.450*** | |
| | | | (10.34) | (6.57) | |
| Lev | | | -17.959*** | -321.711*** | |
| | | | (-9.56) | (-10.02) | |
| Board | | | -2.659** | -20.182 | |
| | | | (-2.03) | (-0.94) | |
| Indep | | | -0.780 | -118.298 | |
| | | | (-0.16) | (-1.62) | |
| Dual | | | 0.173 | 7.793 | |
| | | | (0.25) | (0.87) | |

| Top1 | | | 1.688 | 32.639 |
|--------------------|---------|-----------|------------|-------------|
| | | | (0.79) | (1.05) |
| Balance1 | | | 0.030 | 0.768 |
| | | | (0.03) | (0.05) |
| Big4 | | | -1.412** | -22.830** |
| | | | (-1.99) | (-2.44) |
| Constant | -2.099 | -83.418** | -53.126*** | -502.834*** |
| | (-0.93) | (-1.96) | (-8.13) | (-4.70) |
| YearFE | Yes | Yes | Yes | Yes |
| IndustryFE | Yes | Yes | Yes | Yes |
| Adj-R ² | 0.0104 | 0.00696 | 0.0253 | 0.0271 |
| N | 11,746 | 11,746 | 11,746 | 11,746 |

Note: * * * *, * *, * are significant at 1%, 5% and 10% respectively; t value in brackets.

5 Research Conclusions and Implications

5.1 Conclusion

Based on the sample of China's A-share listed companies from 2010 to 2021, this paper empirically analyzes the impact of ESG performance on the growth of enterprises. The main conclusion of the study is that the growth of enterprises is significantly positive for ESG, that is, the better the ESG performance, the better the growth.

5.2 Implications and Suggestions

The above research findings have some implications for enterprises and governments:

First of all, listed companies should pay attention to the disclosure of ESG performance related information to enhance the growth of enterprises. In the process of ESG information disclosure, enterprises can establish the image of stakeholders to assume social responsibilities to ensure the stability of resource acquisition. Secondly, the government should improve the ESG information disclosure norms and system, and set up corresponding reward and punishment measures. This move can form a forcing mechanism for enterprises, force them to improve their corporate governance level, and help market investors support the development and growth of high-quality listed companies.

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