The Impact of Female Executives on Corporate Development from the Perspective of ESG Investment

Chenjing Wu^{1,a,*}

Administrative law school, Southwest University of Political Science & Law, Chongqing, 401120,

China
a.906402035@qq.com
*corresponding author

Abstract: In recent years, gender equality has increasingly become the focus of international attention. The proposition of gender equality is widely used in politics, economics, and other fields. As a new investment concept emerging in the field of global economic law in the last decade, when assessing the potential for long-term growth, environmental, social responsibility, and governance investments also consider the social and long-term value of businesses. In the process of pursuing sustainable development, environmental and social responsibility, governance investment, and the embodiment of gender equality in enterprise management and business investment are inseparable. The research topic of this paper is the impact of female executives on corporate development. This paper mainly uses data from the China Stock Market and Accounting Research Database and the State Intellectual Property Office. Through legal study and data analysis, which are the three perspectives of the environmental, social responsibility, governance, and investment approaches. Then the paper evaluated the data using the Dow Jones Sustainability Index. Score the sample data with the Dow Jones Sustainability Index, and compare the final score to determine the sustainable development ability of the company. Deeply considers the role of female executives in the enterprise and the existence of female executives on investors, boards and even the entire company.

Keywords: ESG investment, gender equality, corporate governance, enterprise sustainable development

1. Introduction

In the current literature, the influence of female executives on enterprises mainly focuses on innovation, corporate decision-making, and social responsibility. There is still room for discussion on the influence perspective. The reference includes listed companies' stock price changes, products, business diversity, and other aspects. Few papers address the impact of the number of female executives on a company's sustainability. The research topic of this paper is the impact of female executives on corporate development. The specific issue explored in this paper is how the number of women in senior positions affects a company's sustainability.

Analyzing the role of female executives in the development of companies from the three dimensions of environment, society and government in Environmental, social responsibility,

^{© 2023} The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

governance (ESG) investment can better promote enterprises to make appropriate decisions. Secondly, it can understand the psychological mechanisms of female executives in the process of work, including the psychological changes and behavior transmission when they suffer from "unequal" treatment, and what kind of demands they have for equal status, which is helpful for enterprise managers to improve the working conditions of female executives and prevent possible negative effects.

2. Introduce of ESG Investment

In recent years, with the global recognition of the concept of sustainable development, the international market has attached great importance to the ESG investment performance of enterprises [1]. ESG Investment, as a new investment concept emerging in the global financial market over the past decade, also focuses on the long-term value and social value of a company when assessing its long-term development potential. In the process of pursuing sustainable development, ESG investment is inseparable from the embodiment of gender equality in enterprise management and business investment.

ESG investment has attracted worldwide attention, and a large number of listed companies have demonstrated through information disclosure that they have achieved good results in ESG investment, in order to seek the sustainable development of the company. According to data released by the Global Sustainable Investment Alliance (GSIA), global ESG assets under management have exceeded \$35 trillion in 2020, accounting for one-third of the current global total assets under management.

As a new investment concept emerging in the field of global economic law, ESG was originally proposed by the United Nations Environment Programme's Financial Action, in which environmental factors refer to the contribution made by enterprises to protect the natural environment, social factors indicate the extent to which enterprises pay attention to social responsibility, and governance factors are measures of corporate governance. Through the analysis of the three dimensions of enterprise ESG, society and capital can judge whether an enterprise has the value of sustainable development. The three dimensions of ESG are not only charitable behaviors of enterprises but also important indicators of corporate governance and development.

ESG investing is any sort of investment strategy that takes some or all of these factors (environmental, social, and governance) into consideration when building out your investment portfolio [2]. Despite some distinctions, socially responsible investing (SRI) and impact investing are often combined with ESG investing. SRI was a forerunner to ESG investing and usually favors business-exclusion tactics. (negative screening). effect investing is the practice of making investments solely with the intention of having a positive social or environmental effect, such as purchasing a bond to support a company's transition to renewable energy sources.

3. The Impact of the Ratio of Female Executives on Company

Based on this, a new research method is designed in this article, which focuses on the three factors that ESG investments (that is, environment, society, and governance) as the evaluation criteria for the performance of the company.

In this paper, China's A-share listed companies from 2011 to 2021 were taken as research samples, this paper chooses three of them for comparison, NINGXIAYINGLITECHEMICALSCO.,LTD (Younglight), HUBEI YIHUA CHEMICAL INDUSTRY CO., LTD (Yihua) and JIANGLING MOTORS CO.,LTD (Jiangling). The reasons for choosing these three companies as samples are as follows:

Firstly, these three companies operate in heavy industry, which will have a certain impact on the environment and must have a certain amount of environmental protection expenditure. Secondly, as the A-share listed companies, the three companies have better public information disclosure, which is conducive to data collection. Last but not least, the data from these companies are representative of the industry and reflect the universality of the results.

The items we need to perform the ESG investment analysis is as follows: the number of investments in environmental protection, return on equity (ROE), and the status of charitable spending. And the data mainly came from the CSMAR database and the CNRDS. This paper also collected data of the number of female executives in the listed companies. Through the information obtained, the number of female executives in these companies is no more than 10, and there are few staff changes in the decade, and the overall situation is relatively stable. There is some evidence that global assessments of sustainability are converging and that investors may increasingly be valuing the DJSI's continuation, suggesting that firms may gain at least limited benefits from reliable sustainability [3].

According to the ESG evaluation system of the DJSI, from low to high, the ESG performance of enterprises is assigned a score of 1-9. Summarize the above data into a table for comparison.

The Dow Jones Sustainability Index is evaluated on the following criteria:

Evaluation latitude	Index	Weight (%)
Economics	Company management (11.5)	6.0
Environment	Environment performance (3)	7.0
Society	Human capital development (17)	5.5

Table 1: Dow Jones sustainable development evaluation index system.

And the DJSI is calculated as: sustainable score $=\sum$ (problem score * index weight * problem weight), however, how to determine the weight of industry-related indicators and the specific scoring criteria are not found in the public materials of Dow Jones, which are calculated in proportion in this paper.

3.1. The Environmental Index of the Company

Check the annual environmental report and environmental performance provided by the company. The number of female executives at Younglight has stabilized at one in ten years, and the investment in environmental protection over the past ten years is 559,945,100 yuan in total (score is 2). And the second company, Yihua, has no female executives in its company; its investment in the environment is 257,720,000 (score is 1). The last company, Jiangling, has more than three female executives, and the number of female executives is increasing every year. Jiangling's total investment in environmental protection within ten years is 3,846,540,000 (score is 3). According to the formula of the DJSI, Younglight is 0.14, Yihua Hubei is 0.07, and Jiangling is 0.21.

3.2. Social Contribution of the Company

In this section, the amount of foreign donations made by these listed companies was determined using the Dow Jones Sustainable Development Index evaluation system. According to data from CSMAR and CNRDS shows that Younglight only donated 229,860 yuan (score is 3) in ten years. While Jiangling donated 22,091,834 yuan (score is 15) and Yihua, Hubei donated 21,014,915 yuan (score is 14). According to the formula of DJSI, Younglight is 0.165, Yihua Hubei is 0.77, Jiangling is 0.825.

3.3. Governments and Companies

DJSI takes the data of this part as economics, therefore, this paper chooses the return on equity (ROE) as the evaluation standard. The average of ROE of Younglight, Jiangling and Yihua Hubei is 3.08804 (score is 2), 13.77827 (score is 10), 8.73881 (score is 7). According to the formula of DJSI, Younglight is 0.12, Yihua Hubei is 0.6, Jiangling is 0.42.

In the sample with a positive ROE, there is no strong correlation between the specific value and the number of female executives, but in the sample with a negative ROE, the proportion of companies without female executives is much greater than that of companies with female executives.

4. Discussion

Sum the above data separately to obtain that the DJSI score of Younglight is 0.425, Yihua Hubei is 1.44 and Jiangling is 1.455.

The above data were summarized for ESG evaluation. A-share listed companies with female executives appear to perform better on environmental, social and policy issues. However, it can be seen that the score gap between these three companies is small, indicating that female executives have a weak influence on the sustainable development of the company. The mechanism test shows that patriarchal culture weakens the influence of female executives. In an environment where men are in power, the impact of female executives on green innovation is not significant [4].

This paper also believes that the reason why the number of female executives has a weak correlation with ROE index of listed companies is just because two variables appear to move together does not mean that one result in the other. The difference in performance can be due to other variables, such as the amount of investment, changes in market demand, how the company uses its funds, and many other factors.

5. Conclusion

Now we can answer the questions in the introduction part, public companies with more than one female executive generally perform better in the ESG assessment. The number of female executives is positively correlated with the company's sustainability index. The concern about this paper is that it modifies the items in the Dow Jones Sustainability Index, which may result in less objective results. And under the socialist market economy system, the ESG evaluation result will be affected by the special economic system, for example, should the weight of policy influence be raised appropriately? The impact of COVID-19 on the data between late 2019 and 2021 should also be considered. Moreover, the author believes that the survey period of ten years is a little long, after all, China's social development and industrial changes are rapid in ten years.

The company's disclosure of data should also be considered in the investigation process. According to the data statistics in 2021, the ESG disclosure rate of A-share listed companies is 30%, among 1,268 A-share listed state-owned enterprises, 603 state-owned enterprises have disclosed sustainable development-related reports (including ESG reports), and the ESG report disclosure rate has reached 48% [5]. However, the performance of non-state-owned enterprises is much lower, and due to the lack of domestic supervision, it is difficult for us to make a positive evaluation of the accuracy of the data, which is also the variable to be considered in this paper.

The solution and next steps to the above problem are as follows: In view of the current survey results, a robustness test of the existing data should be conducted by referring to other data analysis models in the future and discussing how to eliminate the factors that interfere with the relationship between the proportion of female executives and the company's economic benefits to the greatest extent possible. Looking for companies in specific regions such as Europe, where ESG evaluation is highly valued, and screening samples for re-investigation, sample data from two different regions was

evaluated and compared. The investigation period can be appropriately shortened in the follow-up investigation.

Acknowledgment

This paper represents the end of a protracted and difficult journey—one that I was only able to complete thanks to the devoted assistance I got from numerous people along the way.

My sincere thanks go out to Professor C.H. from my scientific research course for her constant and invaluable guidance throughout my study.

I'm also appreciative of the professors and teaching assistants I met while conducting the study. For their insightful criticism, which served to raise the caliber of the thesis. I would like to express my gratitude for my dearest parents' encouragement, tolerance, love, and care throughout my academic and personal path.

Reference

- [1] Huang Birong and Wang Zilong and Gu Yuan. ESG Investment Scale Allocation of China's Power Grid Company Using System Dynamics Simulation Modeling. International Journal of Environmental Research and Public Health, 2023, 20(4): 3643-3643.
- [2] Matt Kelley, CFA, Portfolio Strateg gy Manager& Chris Sardi, CFA, Portfolio Strategy Analyst. ESG Investments-Part One: An Introduction to and theory of ESG Investing,
- [3] Olga Hawn and Aaron K. Chatterji and Will Mitchell. Do investors actually value sustainability? New evidence from investor reactions to the Dow Jones Sustainability Index (DJSI). Strategic Management Journal, 2018, 39(4): 949-976.
- [4] Ma Zhong et al. Sustainable Governance and Green Innovation: A Perspective from Gender Diversity in China's Listed Companies. Sustainability, 2022, 14(11): 6403-6403.
- [5] Nie Zicong. Research on the Influencing Factors of ESG Information Disclosure of Listed companies in heavily polluting Industries: a qualitative comparative analysis based on Fuzzy Sets. Business Accounting and Accounting, 2022, No. 739(19):38-43.