



The Impact of Environmental Disclosure Level on the Operating Performance of Overseas Subsidiaries

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Abstract. With the rising concern for sustainable development in countries around the world, environmental information disclosure has become an important consideration for enterprises to participate in international competition and compliance. At the same time, whether an enterprise undertakes environmental responsibility and contributes to the sustainable development of the local society in its cross-border operations will also affect its ability to operate overseas. The overseas subsidiaries of 631 listed enterprises in China from 2011 to 2020 are taken as samples to empirically test the hypotheses proposed in this paper. The results show that the improvement of environmental information disclosure level can effectively enhance the financial performance of overseas subsidiaries of Chinese multinational corporations. Meanwhile, the regression results of this paper's empirical results are still significant after passing the endogeneity test and the robustness test, which indicates that the findings of this paper have good robustness.

Keywords: Environmental information disclosure level, Legitimacy, Subsidiary, Performance

1 INTRODUCTION

With the implementation of the "Going Global" strategy and the "Belt and Road" initiative, the pace of outward FDI by Chinese enterprises has been accelerating. By the end of 2021, 28,600 Chinese enterprises had set up 46,000 subsidiaries in 190 countries (regions) outside China, a record high. However, the performance of Chinese MNCs' overseas subsidiaries is not optimistic, with as many as 41.8% of overseas subsidiaries in the red in 2020, according to the Cathay Pacific Overseas Affiliates Database. This seemingly contradictory phenomenon has received academic attention. Some studies have identified host countries' misunderstanding of and discrimination against Chinese TNCs as an important factor hindering their overseas operations (Yang, 2020)¹. As a result, MNEs are putting more and more emphasis on how to win over local stakeholders, overcome the outsider disadvantage, create legitimacy, and strengthen their global competitive advantage when operating in the host market (Xu, 2021)².

A low-carbon economy and actively combating climate change have recently gained support from the international community, and an increasing number of nations and

regions have incorporated the idea of sustainable development into their national strategic planning and formulation. The "Reform Plan for Environmental Information Disclosure System According to Law" was released by China's Ministry of Ecology and Environment (MEE) in May 2021 with a focus on corporate environmental responsibility. It not only encourages the modernization of the ecological and environmental governance system and governance capacity, but also improves the transparency of environmental information of Chinese enterprises, helping them to increase their sustainable competitiveness. Multinational corporations (MNCs), which make up the bulk of the global division of labor, are concerned about how stakeholders will perceive their environmental and social responsibilities (Zhu et al., 2019)³, and their capacity to meet these obligations can help them gain stakeholders' respect and valuable resources (Tan et al., 2022)⁴.

The key concerns explored in this work have been the subject of helpful research in earlier publications. Studies that are pertinent to this topic mostly concentrate on influencing variables (Cong et al., 2011⁵; Clarkson et al., 2008⁶; Zeng et al., 2010⁷) and elements such as enterprise value (Yan et al., 2020⁸; Yu et al., 2018⁹; Fan et al., 2020¹⁰). Some research has focused on the effect of environmental information disclosure on corporate performance (Hermundsdottir and Aspelund, 2022¹¹). However, there is a scarcity of research on the impact of environmental information disclosure compliance on multinational enterprise operations.

2 HYPOTHESES DEVELOPMENT

According to the theory of resource advantage, environmental information is an important resource for enterprises. As the environmental pollution problem is becoming more and more prominent and the concept of sustainable development emphasizing green and low-carbon has become a consensus, many countries have demonstrated more stringent environmental requirements for multinational enterprises. At the same time, if multinational enterprises actively fulfill their environmental responsibilities, they can not only meet the host country's environmental governance requirements, but also help enterprises obtain legitimacy and improve the performance of overseas subsidiaries. The active fulfillment of environmental responsibility by MNEs can help them realize technological upgrading and enhance their green innovation ability, and the improvement of production technology can help MNEs further compress costs and expand profit margins, which can help MNEs "go down the road" at a high level (Wu et al. 2023¹²). In addition, MNEs that actively fulfill their environmental responsibilities convey information about their social responsibilities to the public, which can help establish a responsible image and good reputation among the public, and enable MNEs to obtain more government support and external financing (Lemma et al., 2022¹³). Based on the above analysis, this paper proposes the following hypotheses:

H1: The increase in the level of environmental information disclosure contributes to the performance of overseas subsidiaries of multinational corporations.

3 DATA AND RESEARCH DESIGN

3.1 Empirical model

This paper first constructs the following model to test the effect of environmental disclosure level on the performance of overseas subsidiaries.

$$Profit_{ijt} = \alpha_0 + \alpha_1 EID_{it} + \alpha_2 Control + \eta_t + \theta_i + \lambda_j + \varepsilon_{ijt} \quad (1)$$

In model (1), subscript i denotes overseas subsidiaries, subscript j denotes host countries where overseas subsidiaries are located, and subscript t denotes the year. The explanatory variable Profit denotes the performance of overseas subsidiaries, and the explanatory variable EID denotes the level of firms' environmental information disclosure. *Control* is a series of control variables. In addition, the model controls for year (η_t), industry (θ_i) and host country (λ_j) fixed effects.

3.2 Variable Declaration

Explained Variables.

Overseas Subsidiary Performance. Logarithmic treatment of corporate net income as corporate performance of foreign subsidiaries.

Core explanatory variables.

The level of environmental information disclosure of enterprises. This paper selects the Environmental Information Disclosure Score (EID) in Bloomberg's ESG disclosure quality score to measure the level of corporate environmental disclosure.

Control variables.

The control variables at the level of overseas subsidiaries selected in this paper include overseas subsidiary size (*Sub_size*), parent company size (*Size*), parent company gearing ratio (*Lev*), management shareholding ratio (*Mshare*), and parent company auditor dummy variable (*Big4*). The country-level control variables are host country GDP (*GDP*) and host country per capita GDP growth rate (*Pgdp_growth*).

3.3 Data specification

Overseas subsidiary performance data comes from the database of Cathay Pacific CSMAR, and environmental disclosure level score data comes from the Bloomberg database of corporate ESG disclosure scores. This paper selects Chinese A-share listed companies that have carried out OFDI from 2011 to 2020 as the research sample with the following treatment: (1) delete the samples of ST, * ST, and delisted companies; (2) exclude samples from businesses whose overseas subsidiaries are registered in tax

havens like Hong Kong, Macao, and Taiwan, as well as the British Virgin Islands, Cayman Islands, and Bermuda; (3) exclude samples from financial and insurance listed companies.

Table 1 presents the descriptive statistics of the main variables. It can be seen that during the period of 2011-2020, the mean value of the performance of overseas subsidiaries of Chinese listed companies is -1.077, indicating that the performance level of overseas subsidiaries of listed companies in China is low overall and most of them are in a loss-making status.

Table 1. Summary statistics on variables.

Variable	Observations	Mean	SD	Min	max
<i>Profit</i>	3138	-1.077	14.78	-27.79	24.77
<i>EID</i>	3138	3.226	8.017	0	59.41
<i>Size</i>	3138	22.13	1.180	19.63	28.64
<i>Lev</i>	3138	0.404	0.188	0.0140	1.227
<i>Mshare</i>	3138	0.182	0.223	0	0.832
<i>Big4</i>	3138	0.0630	0.244	0	1
<i>Sub size</i>	3138	14.53	3.782	0	29.21
<i>GDP</i>	3138	28.42	1.931	22.08	30.69
<i>Pgdp_growth</i>	3138	1.106	2.925	-13.02	24.00

4 EMPIRICAL RESULTS

4.1 Benchmark results

The results of the benchmark regression are shown in columns (1)-(2) in Table 2. The results in column (1) show that the regression coefficients of corporate environmental disclosure level are still significantly positive after adding industry, year and host country fixed effects. The results in column (2) show that the level of corporate environmental information disclosure still significantly enhances the performance of overseas subsidiaries after adding further control variables, thus validating H1.

Table 2. Benchmark regression results.

Variable	(1)	(2)	(3)	(4)
<i>EID</i>	0.165*** (4.769)	0.117*** (2.995)		0.003** (2.388)
<i>ESG</i>			0.791*** (2.861)	
<i>Constant</i>	-1.611*** (-5.821)	-8.473 (-0.111)	-0.631 (-0.008)	0.057 (0.022)
Observations	3138	3138	3104	3138
Adjusted R-squared	0.079	0.092	0.123	0.115
Control	No	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes

Year	Yes	Yes	Yes	Yes
Country	Yes	Yes	Yes	Yes

4.2 Robustness analysis

In order to further test the reliability of the estimation results, the following three methods are used in this paper to conduct robustness tests: (1) replacing explanatory variables. Since ESG ratings will also reflect the corporate environmental information disclosure, ESG ratings are selected to replace the explanatory variables; (2) Replacement of explanatory variables. This paper assigns the value of 1 when the net profit of overseas subsidiaries is greater than zero, and takes the value of 0 when the net profit of overseas subsidiaries is less than zero, and adopts Logit regression; The results are shown in columns (3)-(4) of Table 1, and the regression results are still significant. This indicates that the findings of this paper have good robustness.

5 CONCLUSION

The following recommendations are made in this research in light of the aforementioned findings: (1) MNE management needs to understand how environmental information disclosure levels affect how well its foreign subsidiary's function. Multinational corporations should uphold their environmental obligations when conducting business abroad, take the effort to provide pertinent environmental information, and progressively increase their competitiveness in the local market. (2) To overcome their outsider disadvantage and improve their corporate image, multinational enterprises should closely integrate environmental responsibility with their own development. They can do this by increasing the level of environmental information disclosure; alternatively, they can use it to increase their own transparency, win the trust of investors, and streamline the financial channels.

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