

Does Firm's ESG performance matters for corporate export? Evidence from China

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Abstract. Firms' ESG performance is a vital factor for sustainable development. Corporate export, as one of the most significant firm international strategies, plays a crucial role in their decision-making. This study conducts theoretical analysis and empirical tests on the relationship between firm's ESG performance and corporate export using panel data of Chinese listed companies from 2011 to 2016. We employ the fixed effect regression model based on the panel dataset and find that firm's ESG performance significantly positively affects corporate export. Our main findings have certain implications for enterprises in coping with sustainable development and empowering the international corporate strategy.

Keywords: Firm ESG performance; Corporate export; Chinese listed firms; Sustainable development.

1. Introduction

Many scholars have documented that firms' environmental, social, and governance (ESG) performance is a vital factor for sustainable development (DasGupta, 2022; Khan, 2022; Lu et al., 2024). The mainstream literature has also explored the bright sides of firms' ESG performance and discuss the effect of firm ESG performance on firms' domestic operation behavior extensively, such as its impact on firm market value (Fatemi et al., 2018) and operational performance (Sahut and Pasquini-Descomps, 2015). However, it is surprising that there has no literature related to the effect of corporate ESG performance on firm international strategy, especially on corporate export.

Corporate export, as one of the most significant firm international strategies, plays a crucial role in their decision-making (Alessandria et al., 2021; Chen et al., 2023; Gupta and Chauhan, 2021). Previous studies have primarily focused on the effect of traditional business factors on corporate export while overlooking the direct influence of firms' ESG performance (Calof, 1994; Hirsch and Adar, 1974; Nakos et al., 1998; Wakelin, 1998). To date, the potential relationship between firms' ESG performance and their corporate export remains unclear. Therefore, this study aims to address this research gap by examining the link between firms' ESG performance and corporate export.

Thus, this paper constructs a theory framework and conduct theoretical analysis about the relation between firm's ESG performance and corporate export. Furthermore, we adapt panel data of Chinese listed companies from 2011 to 2016 and build fixed effect model to investigate the effect of firm's ESG performance on corporate export. The estimated results shows that the effect of firm's ESG performance on corporate export is positive. Our main conclusions could provide implications for enterprises in coping with sustainable development and empowering the international corporate strategy.

The first marginal contributions of our research can be described up as follows: this study advances the investigation of the sustainable influencing factors of corporate export by examining the facilitate role of ESG performance. By doing so, this study expands the understanding of the factors that affect firms' export and moves beyond previous studies that were based on a traditional perspective of corporate fundamental characteristics, manager characteristics or the macro environment characteristics (Chen et al., 2020; Crozet et al., 2021; Minetti and Zhu, 2011; Munch and Schaur, 2018; Rodriguez-Pose et al., 2013; Zhang et al., 2020).



The second marginal contributions of our research can be described up as follows: this paper enriches our understanding of the effect of firm ESG performance through the lens of corporate international strategic decision-making. Specifically, it examines how firms react to ESG outcomes through corporate international export activities, which can provide deeper insights into firms' international strategic and sustainable development (Alareeni and Hamdan, 2020; Fatemi et al., 2018; Huang, 2021; Lu et al., 2024, 2024; Sahut and Pasquini-Descomps, 2015; Yoon et al., 2018).

The last marginal contributions of our research can be described up as follows: this study also contributes to our understanding of the consequences of ESG performance at the firm level and provides insights into the sustainable driven forces that shape firms' international trade behavior in emerging market countries (Bas, 2012; LiPuma et al., 2013; Minetti and Zhu, 2011; Rodríguez-Pose et al., 2013).

The reminder structure of this paper includes as follows: Section 2 is Literature review. Section 3 is theoretical framework and hypothesis development. Section 4 describes data sources and sample selection. Section 5 designs variables and builds models. Section 6 show related empirical results. Section 7 concludes main findings and provides related insights and limitation.

2. Literature review

3.1 The determinants of corporate export

Existing studies have explored the economic determinants of corporate export from both macro and micro perspectives (Alessandria et al., 2021; Alguacil et al., 2022; Bas, 2012). Based on the macro level, existing studies have mainly examined the impact of trade policy uncertainty on corporate export (Bas, 2012), the effect of country level institution quality on corporate export (LiPuma et al., 2013) and the facilitating role of economic growth play in corporate export (Chen et al., 2020). Since macro fluctuations are more likely to be caused by the convergence of multiple impacts of micro business entities (Alessandria et al., 2021), based on the micro perspective, the existing literature has also explored the determinants of corporate export from the lens of financing constraint (Du and Girma, 2007), corporate innovation (Wakelin, 1998), manger overconfidence (Nakos et al., 1998), political connection (Ding et al., 2018) and so on. In addition, a few studies have confirmed that trade policy uncertainty inhibits firms' exports (Benguria et al., 2022; Bergin et al., 2021). While many academic researchers have extensively examined the potential impact of firm-level determinants on corporate export, relatively few scholars have investigated the correlation between enterprises' ESG performance and corporate export.

3.2 The consequence of firm ESG performance

Although extant studies on firm ESG performance have mainly explored its consequence in the field of corporate finance (Alareeni and Hamdan, 2020; Carnini Pulino et al., 2022; Fatemi et al., 2018; Huang, 2021). On the one hand, the mainstream literature focus on the effect firm ESG performance on corporate domestic activities (Gillan et al., 2021; He et al., 2022; Mervelskemper and Streit, 2017; Zhou et al., 2022). Some related scholars reveal that ESG have positive effects on corporate innovation, mainly reflected in improving the R&D investment, reducing internal management costs, and promoting financing constraints (Billio et al., 2021; Duque-Grisales and Aguilera-Caracuel, 2021; Handayani, 2019; Yoon et al., 2018). However, evidence on the relationship between firm ESG performance and corporate export under developing country such as the China is scarce.

3. Theoretical framework and hypothesis development

Firms that actively implement ESG strategies can effectively communicate their sustainable development goals and create competitive advantages for their stakeholders, such as investors, governments, suppliers, and clients (Zhang et al., 2020). At the same time, improvements in ESG performance reflect a stronger desire and ability to meet the interests of stakeholders and can also

facilitate the establishment of good relationships with them (Khan, 2022). Furthermore, while the negative factors of firms' export have been well documented, such as a shortage of bank loan supply and higher costs of transactions, debt, and equity (Alessandria et al., 2021; Bellone et al., 2010; Calof, 1994; De Sousa et al., 2020; Du and Girma, 2007; Gupta and Chauhan, 2021), positive ESG practices can help firm reduce financing constraints, bridge the gap of information asymmetries, enhance corporate reputation, and accumulate moral capital (Alareeni and Hamdan, 2020; Carnini Pulino et al., 2022; Fatemi et al., 2018; Sahut and Pasquini-Descomps, 2015; Yoon et al., 2018). By doing so, firms can seize more long-term development opportunities and promote corporate export.

Besides, Firms with higher ESG performance can receive support from the government and broader financing channels, which may eventually offset the negative impact caused by uncertainty (Alareeni and Hamdan, 2020), particularly in emerging markets. Good ESG performance could send reliable signals that dispel concerns of multi-stakeholders and demonstrate their ability to honour explicit or implicit commitments (Arvidsson and Dumay, 2022), which can positively contribute to corporate export in the international market (Bellone et al., 2010; De Sousa et al., 2020; Wakelin, 1998; Zhang et al., 2020). Consequently, firm ESG performance could facilitate corporate export. Therefore, we provide the following hypothesis H1.

H1: firm ESG performance exert a positive effect on corporate export.

4. Data source and sample selection

Consistent with prior studies (Chen et al., 2023; Zhang et al., 2020), firm export data comes from the General Administration of Customs of China from 2011 to 2016. This study constructs the ESG performance variables based on the Bloomberg ESG disclosure index system, developed by referencing the mainstream ESG disclosure evaluation system and adapting it to the Chinese market (Fatemi et al., 2018; Huang, 2021). Firm-level financial information is collected from China Stock Market & Accounting Research (CSMAR). Besides, we also drop financial firms and firms with missing financial data. We also excluded ST and financial or insurance firm. Then, this paper constructs a panel dataset including 10642 observations.

5. Methodology

5.1. Variables design

5.1.1 Dependent variable: corporate export

Firm export data comes from the General Administration of Customs of China. We adapt the natural logarithm of firms' export scale (RMB Yuan) in year t .

5.1.2 Independent variable: firm ESG performance

We utilized the ESG performance score provided by Bloomberg, which has gained widespread use in recent ESG performance literature (Alareeni and Hamdan, 2020; Huang, 2021). A better firm ESG performance relates to bigger ESG scores.

5.1.3 Control variables

The control variables selected in this study are represented by CV_{sit} , following the practice of existing literature (Alguacil et al., 2022; Lu et al., 2024), including (1) Roa, measured by the total asset return rate; (2) firm size, measured by the natural logarithm of total assets; (3) firm age (age), measured by the natural logarithm of the firm's age plus 1.

5.2. Model specification

This paper uses the following fixed effect regression model to investigate the effect of firms' ESG performance on corporate export:

$$Ln_export_{i,t} = \alpha + \beta \times ESG_{it} + \gamma \times CVs_{it} + \zeta_t + \eta_i + \varepsilon_{it}, \quad (1)$$

Where $Ln_export_{i,t}$ represents firm i 's natural logarithm of export scale in year t . ESG_{it} denotes firm i 's ESG performance rating in year t . CVs_{it} denote some related control variables that may be related to firm ESG performance. Year fixed effects and identity corporate fixed effects are represented by ζ_t and η_i , respectively. Bias term is $\varepsilon_{i,t}$. Besides, we cluster the standard errors at the firm level. Time-varying factors not considered by the firm may also affect the firm's ESG disclosure, which is uniformly controlled by including time-fixed and firm-fixed influences in the above model. By conducting the above empirical setup, the sign and significance of the estimated coefficients β in equation (1) should be purported to reflect the impact of the firm ESG performance on corporate export.

6. Empirical results

To demonstrate the hypotheses and provide some evidence for our question: Does Firm's ESG performance matters for corporate export? In this section, we conduct regression and estimate the model (1) based on panel data. We show the related results in Table 1. We find that the effect of firm ESG performance on corporate export is positive at the 1% significance level. Thus, we can draw conclusion that hypothesis H1 in this paper is hold.

Table 1. Baseline regression results based on panel data

Proxy	(1) <i>Ln export</i>	(2) <i>Ln export</i>
ESG	0.991** (0.031)	0.863*** (0.021)
Roa		0.031*** (0.002)
size		0.085*** (0.002)
age		0.0710*** (0.008)
Constant	0.212*** (0.002)	0.811*** (0.191)
Firm fix effect	√	√
Year fix effect	√	√
Observations	10,642	10,642
R ²	0.2912	0.3318

Notes: The value in parentheses represent the standard errors; ***, **, and * show significance levels of $p < 0.01$, $p < 0.05$, and $p < 0.1$, respectively.

7. Conclusions, insights, and limitations

Nascent studies have increasingly emphasized that ESG performance plays a crucial role in critical corporate governance decisions, as it is an investment behavior linked to the sustainable development of companies. This study conducts theoretical analysis and empirical tests on the relationship between firm's ESG performance and corporate export using panel data of Chinese listed companies from 2011 to 2016. We employ the fixed effect regression model based on the panel dataset and find that firm's ESG performance significantly positively affects corporate export. Our main findings have certain implications for enterprises in coping with sustainable development and empowering the international corporate strategy.

Policymakers should understand the positive effect of firm ESG performance on corporate export and encourage firms' ESG strategies. To improve the corporate international competitiveness, companies must accurately identify and fully utilize the benefit of ESG performance to facilitate international trade. Lastly, this paper only collects data on listed enterprises in China, but it is important to consider the potential impact of the firm ESG performance on export of unlisted private enterprises. Future

research could investigate heterogenous effect of firm ESG performance on corporate export under different industry and countries.

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