

CSR, Environmental and Export Performance: The Moderating Effect of Green Business Strategy and Innovation on Chinese Manufacturing SMEs



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ABSTRACT: This study aims to find out the relationship between CSR, environmental and export performance, as well as the moderating effect of green business strategy and innovation based on the evidence from Chinese manufacturing SMEs. For this study a total of 212 questionnaires were conducted on small and medium-sized equipment export manufacturing companies in the Guangdong Province, the data analysis is conducted by SP SS to verify the research model. This study found a positive relationship between corporate social responsibility and environmental and export performance. Furthermore, results illustrated that innovation moderates the relationship between CSR and export performance. This paper investigates the link between CSR, green business strategy, innovation, export and environmental performance for the developing-country manufacturer that confronts specific barriers. It also provides a glimpse into academic and practical implications that may help manufacturing SMEs in developing countries, which are in a similar situation to China, to better their performance.

KEYWORDS: CSR, Green business strategy, Innovation, Chinese manufacturing SMEs

INTRODUCTION

Corporate social responsibility (CSR) relates to companies' practices beyond legislative requirements and immediate interests, which can benefit the society (Turker, 2009; El Akremi, Gond, Swaen, De Roeck, & Igalens, 2018). CSR is also regarded as a strategic engagement that allows organizations to create value while also creating a competitive advantage and improved performance. CSR was first adopted by large corporations in advanced economies (Bethoux et al, 2007), and has gradually permeated overall operations for all organizations in advanced economies, including small and medium-sized businesses according to Hosoda (2018). CSR-related activities are primarily employed by large corporations like stock enterprises (Chang et al, 2018) and state-managed enterprises (Zhu et al, 2016). Thus, environmental management and performance research has typically been managed in the context of large firms (Millard, 2011). However, many small and medium-sized enterprises (SMEs) cause a lot of social and environmental concerns in developing nations. Performance enhancement is a critical motivation for all businesses to adopt CSR practices. Particularly for SMEs, which may often struggle to exist with limited resources. The factors required for CSR activities to increase performance for SMEs in developing nations are still under exploration.

What's more, the influence of CSR on performance is still controversial in the research. Some research supports the argument that CSR has a considerable impact on export and environmental performance. For instance, Frooman (1997) demonstrated a favorable association between corporate social responsibility and financial profitability. Sarkis et al. (2011) observed that CSR-conscious businesses will make more effort to manage existing partners and will embrace leaner, more ecologically friendly, and user-friendly logistic management processes. A corporation can more than raise production efficiency, it can also obtain greater revenues and better its company reputation by creating and manufacturing environmentally friendly goods (Chen, Lai, & Wen, 2006). Environmental activities can improve a company's financial position in the global market (Bıçakcıoğlu & Theoharakis, 2019). On the contrary, Dixon Fowler et al. (2013) claim that socially responsible business activities do not appear to boost company profitability in comparison to inactive environmental activities. The implementation of CSR activities is very unpredictable and dangerous because it demands a huge investment (Hillman & Keim, 2001). Therefore, companies may not necessarily receive better export and environmental performance by carrying out corporate social responsibility than those inactive CSR activities. Due to inconsistent results, academics continue to focus on this relationship. Several scholars advocated for the use of mediators or moderators between corporate social responsibility and company performance, notwithstanding the findings of previous studies (Surroca et al., 2010). As a result, this study adds two moderators between CSR and export and environmental performance: green

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business strategy and innovation. Green business strategy and innovation play a critical role in influencing export and environmental performance by the resource-based view (RBV) (Hart, 1995).

With environmental problems increasing day by day, customers are said to be engaging in more environmentally friendly behavior; when customers are more aware of environmental threats, customers put more consideration into buying safer products (Maignan & Ferrell, 2001). Based on stakeholder theory, companies must satisfy more than the stockholders but a range of stakeholders, including employees, customers, suppliers, and local community organizations. Thus, implementing green business strategies is critical, particularly during the development stage of industrial companies. Firms must build new resources to adapt to changing environmental conditions (Bıçakcıoğlu, 2018). Green business strategy can improve a company's export performance (Bıçakcıoğlu & Theoharakis, 2019). Enterprises that incorporate environmental concerns into their strategies are more likely to have core competencies based on research by Christmann (2004). A company's green business strategy has gradually become a prerequisite for achieving a long-term competitive advantage. Figuring out how to further enhance the effect of CSR on export and environmental performance by green business strategy is essential for directing management practice.

In addition, innovations have emerged as a pivotal role for companies when implementing CSR activities and improving export and environmental performance. A company's ability to innovate has become a marketable competitive advantage (Bartlett & Ghoshal, 1990). It brings value to businesses by producing new goods and services, and new businesses and capabilities (Cui & O'Connor, 2012). Innovation is also accountable for reducing prices and improving product and service quality (Hauser et al., 2006). Hence, organizations that are even more innovative naturally illustrate more CSR and have better development opportunities (Mishra & Suar, 2010).

Following the guidance in "Chinese Manufacturing 2025", as well as the recommendations highlighted in the 10th meeting of the Central Financial and Economic Commission (2021), "Common Prosperity Policy", and "Carbon neutrality" written in the "Government Work Report" in National Two Sessions (2021), Chinese government goes a step further to improve the awareness of corporate social responsibility. Hence, CSR practices play a crucial role to listed companies and state-run businesses but also the rest of organizations, including SMEs. One of the key objectives of the Chinese CSR Strategy (2021) is to connect CSR with green business strategy and innovation.

Therefore, this paper aims to find out the relationship between CSR, environmental and export performance. As well as the moderating effect of green business strategy and innovation based on the evidence from Chinese manufacturing SMEs. Thus, this article suggests and examines a conceptual model between four indicators in a data set of Chinese SMEs: CSR (economic, social, and environmental perspectives), green business strategy, innovation, environmental and export performance. The goal of this paper is to further understand the potential relationships between green business strategy, innovation, CSR, and performance in the context of SMEs, as well as to emphasize the additional value that can boost interaction with the customers. Some of China's primary development pathways and models can give vital expertise to emerging countries, which may help them to better their performance. Consequently, the Chinese manufacturing SMEs' CSR model will contribute to the long-term growth of Asian companies.

The remainder of the paper is as follows: firstly, this paper will attempt to find a connection between CSR, green business strategy, innovation, environmental, and export performance and hypothesize their relation. Secondly, it objectively examines whether the hypotheses work in the fast-changing Chinese business environment. Lastly, this study will sum up its discoveries and give concluding remarks.

LITERATURE AND HYPOTHESES

The "Chinese Manufacturing 2025" emphasizes an economic system based on competition and consumer access as the fundamental cause of promoting economic development through innovation and green activities. In 2012 President Xi Jinping announced that economic growth should not be achieved regardless of its social and environmental impact; while referencing "Chinese Manufacturing 2025" (Chinese State Council, 2015), and "Common Prosperity Policy" (National Two Sessions, 2021) he highlighted the Chinese government's support of corporate social responsibility. As the Chinese government believes building a globally competitive manufacturing industry is the only way for China to enhance its national strength, ensure national security, and become a world power. Also, CSR has become a standard in its operations and is vital in the process and strategic planning. It is argued that CSR ought to be incorporated into strategic management because it helps legitimize business decisions and enables the company to obtain specific intangible core competencies to gain competitive advantage and greater profitability (McWilliams & Siegel, 2000; Surroca et al., 2010). The primary motivation for selecting sustainable practices is to decrease the negative social and environmental consequences of business operations while increasing the company's outcomes (Baumgartner & Rauter, 2016). That is because business performance is closely related to the availability of strategic resources that are valuable, scarce, inimitable, and non-substitutable (Barney, 1991). The resource-based development strategy analyzes the resources and capabilities that enable enterprises to obtain sustainable competitive advantages. It believes that the difference in profits among enterprises comes from their ability to obtain resources that are compatible with their development strategies.

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Customers want environmentally friendly goods and services, so researchers are focusing on CSR in particular as Melay and Kraus (2012) declared, the term 'eco-entrepreneur' refers to someone who shields and avoids environmental problems, as well as presents environmentally friendly products and processes into the markets. A few companies face stress from stakeholders such as rivals, clients, employees, and the government to take a stand about environmental and social problems (Pekovic & Vogt, 2021). Firms must perform following general public expectations to be successful. Companies that are inwardly oriented have a short life expectancy, whereas companies that are more responsible for their customers are more likely to have success. CSR plays an important role in the modern era because it implies supply security. These businesses are accountable for the well-being, productivity, and performance of all suppliers who contribute to their operations. Although researchers used CSR to assess financial performance for decades (Ali et al., 2020), little consideration has been dedicated to CSR within the domain of environmental performance (Kraus et al., 2017). Furthermore, studies have discovered that corporate social responsibility has made significant strides in organizational performance (Javed et al., 2020; Long et al., 2020). Smith et al. (2007) identified that despite this CSR has had little impact on the success of organizations. Although studies have used CSR to predict a company's performance, academics continue to focus on this link between CSR and export and environmental performance due to inconsistent results. However, the governments of China have aggressively promoted the significance of CSR to companies, encouraging them to adopt CSR activities. When manufacturing companies carry out CSR activities, they will pay more attention to social and environmental issues, which can help them adapt to market demands faster and lessen the environmental impact of their goods. Hence, gaining and maintaining support from consumers worldwide is quite simple, which in turn transforms potential chances into business advantages. In this regard, the hypotheses are proposed to investigate whether CSR practices may improve export and environmental performance among a representative sort of company in an emerging economy, China.

H1. CSR has a positive impact on the environmental performance of Chinese manufacturing SMEs.

H1-1. Economic responsibility has a positive impact on the environmental performance of Chinese manufacturing SMEs.

H1-2. Social responsibility has a positive impact on the environmental performance of Chinese manufacturing SMEs.

H1-3. Environmental responsibility has a positive impact on the environmental performance of Chinese manufacturing SMEs.

H2. CSR has a positive impact on the export performance of Chinese manufacturing SMEs.

H2-1. Economic responsibility has a positive impact on the export performance of Chinese manufacturing SMEs.

H2-2. Social responsibility has a positive impact on the export performance of Chinese manufacturing SMEs.

H2-3. Environmental responsibility has a positive impact on the export performance of Chinese manufacturing SMEs.

THE MODERATING EFFECT OF GREEN BUSINESS STRATEGY

Green business strategy refers to the trend of incorporating environmental concerns into company strategy across sub-business activities such as manufacturing, supply chain, human resources, finance, and international marketing (Banerjee, 2002). It directly affects a firm's choice and encourages the implementation of environmental activities. Park & Ghauri (2015) stated that with the green business strategy in mind, management and workers see environmental issues as improving the company's reputation, meeting demand profitability and efficiency, and receiving tax benefits. All of which foster the promotion and implementation of sustainable activities that entice more eco-conscious customers. According to Turker (2009), the more favorable the view of CSR practices, the closer to the firm is. Staff members' expectations of CSR may result in the incorporation of socially responsible beliefs and practices into business culture and expected goals like improved organizational commitment.

Tariq, Jan, & Ahmad (2016) mentioned that staff members who have green environmental practices, available technologies, and management experience, as well as those who receive recognition, are exceptionally motivated, and committed to the organization, are critical to the enactment of sustainable development and the advancement of performance. Moreover, green business strategy will assist the companies in maintaining harmonious collaboration with stakeholders and improving their reputation. The collaborative activities and good reputation of firms in the business and social areas can encourage employees to form a virtuous cycle of green activities and reputation. Park & Ghauri (2015) stated that managers and employees are more willing to include proactive initiatives that inspire more eco-friendly clients if they see ecological issues as opportunities to improve corporate reputation, increase production efficiencies, and receive tax benefits.

Additionally, Green business strategy also assists companies in obtaining customer resources, effectively integrating client needs for product environmental performance, and improving the firm's efficiency. Hart (1995) asserted that firms must build new resources to adapt to changing environmental conditions (Biçakcıoğlu & Theoharakis, 2019). Hamel & Prahalad (1994) claim that firms are viewed as a collection of resources that support products and commerce activities. Hart & Dowell (2011) found that natural resources and capabilities boost profitability by the reduction of pollution. They recognized that environmental resources, strategies for pollution prevention, and organizational capabilities enhance sustainable performance. Menguc & Ozanne (2005) claimed that researchers use natural RBV theory to measure firms' performance using CSR environmental, social, and economic aspects. It aims to combine environmental resources into the resource-based view, arguing that companies must build innovative resources to adapt to changing climatic conditions. Recent studies have underlined the importance of natural competencies or capacities in gaining a

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competitive advantage (via differentiation, innovation, and so on) through environmental engagement (Journeault, 2016). Sarkis et al. (2010) also mentioned that firms are likely to collect crucial resources and develop the required competencies for achieving the environmental demands of their consumers by implementing green business strategies in worldwide marketplaces. Companies have to pay heed to the environment and improve their environmental awareness capabilities.

Depending on the existing literature, the following hypotheses are proposed:

H3: Green business strategy has a moderating impact on the relationship between CSR and environmental performance.

H4: Green business strategy has a moderating impact on the relationship between CSR and export performance.

THE MODERATING EFFECT OF INNOVATION

As Kim & Mauborgne (2004) described, innovation reinvents the market through offering new value to existing market customers, dramatically boosting purchasing value, and rendering competition obsolete. Innovation is the driving force of opportunity, long-term view, and certainty to achieve performance (Ardestani & Amirzadeh, 2014). Schilling (2015) said that innovation could be divided into product innovation and process innovation. However, in recent years, companies have changed the way that they usually do business, except for product innovation and process innovation. Business model innovation wholly transformed products and processes innovation emerged as a key innovation (Chesbrough & Rosenbloom, 2002). Therefore, among numerous variables in prior research of technology innovation, product innovation, process innovation, and business model innovation, this study examines two variables, namely, product innovation and process innovation, to find out the connection between CSR and environmental and export performance.

According to Übius' (2009) study, firms that focus on innovation objectives and have an innovation atmosphere are closely connected with corporate social responsibility. A study found a beneficial connection between corporate social responsibility and business performance, which improves as a result of innovation and distinction (Hull & Rothenberg, 2008). The ability of a company to innovate is becoming an extremely important success component (Bartlett & Ghoshal, 1990). A firm's innovation reduces a company's unfavorable environmental effect, it also improves its social and financial performance by lowering expenditures and waste (Weng et al., 2015). Companies may improve their performance by utilizing strategic positioning (Porter, 1985). Thus, exporting firms in developing markets should be more inclined to use innovation to adopt a differentiated strategy (Tatoglu et al., 2019). Corsino & Gabriele (2011) use innovative, unprecedented facts on semiconductors consumed globally between 1998 and 2004; at the firm level, new technologies have a significant impact on productivity. Technological improvements have a greater influence on business profitability. According to Yiu et al. (2007), the innovation that includes product and process development may offer existing infrastructure and capabilities needed for globalization from a resource aspect. Based on Eden & Miller (2004), such capabilities and competencies enable a comparative advantage, which is critical for limiting the risks of anomalies. Likewise, Flor & Oltra (2005) said that previous research has provided evidence for the hypothesis that technological skills boost export performance. Hence, depending on the existing literature, the following hypotheses are proposed

H5: Product innovation has a moderating impact on the relationship between CSR and environmental performance.

H6: Product innovation has a moderating impact on the relationship between CSR and export performance.

H7: Process innovation has a moderating impact on the relationship between CSR and environmental performance.

H8: Process innovation has a moderating impact on the relationship between CSR and export performance

In this study, a research model shown in <Figure 1> was to examine the moderating effect of green business strategy and innovation in the relationship between corporate social responsibility and environmental and economic performance.

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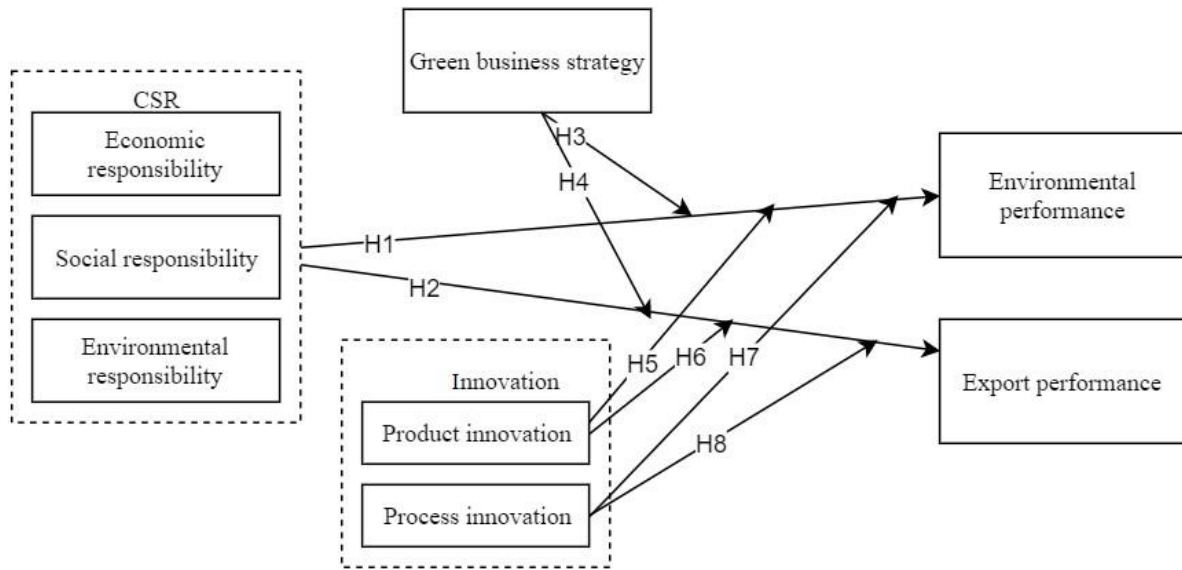


Figure 1

RESEARCH METHOD

In the business management field, researchers apply quantitative analysis or qualitative analysis. Both quantitative and qualitative analyses have their own advantages and limitations. Despite efforts to improve qualitative analysis techniques, quantitative analysis remains the mainstream for worldwide research (Teagarden et al., 1995). Hence, quantitative analysis is used in this research.

A survey method can be very effective in collecting demographic data and drawing a broad picture of research objects. Through the survey, the researcher can gather a wide range of information from a large number of samples. Thus, the quantitative research method using questionnaire were from the administered questionnaire and all variables were standardized before the development of indices.

This study developed items based on previous research. CSR is measured by using sixteen items adapted from Bacinello et al. (2020) and Gao (2018). It includes three dimensions: economic responsibility (ER), social responsibility (SR), and environmental responsibility (ENR). Innovation is measured by using eight items adapted from Cho et al. (2019) and Gao (2018), which include two dimensions: product innovation (PD) and process innovation (PC). Green business strategy (GBS) is measured by using seven items adapted from (Bıçakcıoğlu, 2019). Export performance is measured by four items adapted from (Bıçakcıoğlu, 2019). Environmental performance (ENP) is measured by four items adapted from Gao (2018).

The questionnaire utilizes a 5-point Likert scale is used to assess all the aforementioned constructs. To begin the research, a sampling analysis was performed to better understand the general features of each sample. Second, factor analysis and reliability analysis were performed to confirm the validity and reliability of each measured item. Third, a correlation between each dimension was examined in to better understand the links between the variables utilized in the study. Finally, a regression analysis was performed to validate the study's hypotheses.

RESEARCH SAMPLE AND OBJECTIVE

It is important to note that numerous aspects were taken into account in this study while selecting the Chinese export manufacturing SMEs as the research target. As a country with powerful manufacturing industry, China is facing international pressures to curb its carbon emissions, and stakeholders are putting a lot of pressure on companies to reduce the environmental impact of their industrial processes (Yu, W., et al., 2017). Developed countries have introduced environmental trade regulations such as eco-friendly certification systems in a dual dimension to protect the environment and maintain human health. The Green Trade Barrier, a non-tariff trade barrier used for international trade, currently enforces such regulations (Li & Bang, 2020). As a result, Chinese export manufacturers are enduring difficulties due to rising wages and the Sino-US trade war, despite the abolition of traditional tariffs after China joined the WTO in 2001. As reported by the National Bureau of Statistics, China has over 40 million SMEs, accounting for 99 percent of all firms and generating 60 percent of GDP, 50 percent of the tax, and 80 percent of employment creation. Therefore, it is crucial to improve environmental performance while not affecting export financial performance for export manufacturing companies.

According to the Chinese National Bureau of Statistics, SMEs are those with less than 1,000 employees or less than 400 million yuan in operating income. These corporations are mostly in southeastern China, with Guangdong Province being the most well-known place. So, the questionnaires were distributed to manufacturing SMEs in Guangdong Province, China. The data was collected

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by WENJUANXING, a professional Chinese research company. A total of 1000 copies of the questionnaire were distributed to different companies, and 212 copies with detailed content were brought back, with a 21.2% effective rate, excluding unanswered and uncompleted answers or suspected unreal answers.

The basic characteristics of the sample in this study are shown in Table 1 below.

Table 1. the basic characteristics of the samples

	n	%
<i>size of the company's number of employees</i>		
<100	35	16.5
100-200	48	22.6
200-300	33	15.6
300-500	33	15.6
>500	63	29.7
<i>Age of the companies <1</i>		
1-3	9	4.2
1-3	56	26.4
3-5	65	30.7
5-10	68	32.1
>10	14	6.6
<i>Position of participants in the companies</i>		
Senior-level executive	27	12.7
Middle-level executive	112	52.8
Employee	73	34.4
Total	212	100

Reliability and Validity Test

To ensure the validity of the questionnaire, the data was analyzed with statistics software. The result of exploratory factor analysis and reliability analysis is shown in <Table 2>. In the sample suitability test of KMO, factor analysis is possible when it is 0.5 or more, and it can be said that it is suitable for factor analysis when it is 0.7 or more. The result is 0.914 and Bartlett's test of sphericity verification values are 4700.871, df=406, and sig=0.000 showing that factor analysis can be judged as appropriate. Rejecting the hypothesis that 'the correlation matrix between variables is 0'. In addition, the Eigenvalues of the factors ranged from 2.376 to 3.390, the explained variance ranged from 8.193% to 11.689%, and the total variance explanatory power is 79.630%. This shows that the item factors are properly measured. The analysis showed that the Cronbach's α value of all variables is above 0.8, indicating that there was no problem with the reliability of the questionnaire in this study. The results of the reliability and validity analysis of the research variables are shown in Table 2.

Table 2. Exploratory factor analysis and reliability analysis

Construct	Item	Factor loading								Cronbach's α
		1	2	3	4	5	6	7	8	
CSR	ER1	.189	.095	.791	.123	-.009	.210	.100	.086	.874
	ER2	.147	.230	.790	.141	.083	.055	.110	.118	
	ER3	.159	.058	.830	.132	.039	.157	.181	.070	
	ER4	.006	-.018	.753	.146	.074	.133	.132	.301	
	SR2	.237	.201	.246	.703	.055	.045	.101	.112	.863

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Social responsibility	SR3	.128	.226	.082	.759	-.010	.055	.138	.208		
	SR4	.124	.194	.168	.780	.030	.135	.157	.127		
	SR5	.099	.248	.098	.762	-.033	.177	.182	.129		
Environmental responsibility	EnR2	.063	.063	.017	.074	.795	.063	.046	.028	.865	
	EnR3	.104	.008	.013	.039	.804	.106	-.024	-.060		
	EnR5	.089	.117	.064	-.054	.865	.057	.136	-.003		
	EnR6	.087	.091	.066	-.032	.855	.072	.118	.090		
Green business strategy	GBS2	.184	.791	.148	.308	.052	.118	.152	.200	.918	
	GBS3	.183	.803	.010	.198	.093	.149	.180	.100		
	GBS4	.140	.761	.102	.233	.164	.116	.258	.193		
	GBS6	.156	.792	.166	.237	.085	.165	.104	.146		
Innovation	Product innovation	PD1	.263	.271	.212	.271	.003	.185	.176	.740	.926
		PD3	.195	.236	.244	.286	-.001	.198	.109	.766	
		PD4	.200	.180	.206	.150	.032	.203	.150	.816	
Process innovation	PC1	.831	.204	.159	.150	.113	.093	.165	.162	.927	
	PC2	.786	.214	.206	.222	.118	.187	.155	.148		
	PC3	.803	.038	.065	.166	.119	.177	.208	.157		
		PC4	.839	.205	.146	.083	.120	.176	.095	.114	
Environmental performance	EnP2	.228	.214	.232	.213	.100	.131	.777	.121	.907	
	EnP3	.258	.223	.161	.229	.143	.101	.778	.097		
	EnP4	.151	.221	.200	.177	.114	.123	.806	.180		
Export performance	Exp1	.191	.149	.164	.100	.114	.834	.087	.109	.903	
	Exp2	.182	.161	.213	.158	.155	.819	.085	.177		
	Exp3	.229	.198	.216	.149	.134	.756	.185	.252		
Eigenvalues		3.390	3.284	3.158	3.058	2.978	2.444	2.404	2.376		
Explained variance (%)		11.689	11.325	10.891	10.547	10.267	8.428	8.290	8.193		
Cumulative Variance (%)		11.689	23.014	33.905	44.452	54.719	63.147	71.437	79.630		
KMO=.914 Bartlett's test of sphericity test =4700.871 df=406 sig=.000 Total explained variation =79.630											

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Confirmatory Factor Analysis

In order to verify the concentration validity of the measured items of this study, confirmatory factor analysis was performed on all variables, as shown in Table 3. The analysis results show that the constituent concepts used in this study all show CR values of 0.7 or more and AVE values of 0.5 or more, indicating that they are internal consistency.

Table 3. Confirmatory factor analysis

Construct	Item	Estimate		SE	t- $\frac{z}{sk}$	CR	AVE	
		Non-standardization	standardization					
CSR	Economic responsibility	ER1	1.203	.802	.089	13.496	.878	.642
		ER2	1.103	.796	.083	13.344		
		ER3	1.077	.852	.073	14.777		
		ER4	.921	.753	.075	12.313		
	Social responsibility	SR2	.936	.745	.077	12.101	.864	.615
		SR 3	1.009	.769	.080	12.667		
		SR 4	1.062	.812	.078	13.693		
		SR 5	.997	.808	.073	13.601		
	Environmental responsibility	EnR2	.895	.712	.079	11.375	.869	.626
		EnR 3	.902	.722	.078	11.591		
		EnR 5	1.027	.873	.068	15.209		
		EnR 6	.999	.845	.069	14.479		
Green business strategy		GBS2	1.147	.918	.067	17.163	.920	.742
		GBS3	.871	.820	.061	14.298		
		GBS4	1.082	.872	.069	15.751		
		GBS6	1.086	.833	.074	14.640		
Innovation	Product innovation	PD1	1.196	.929	.068	17.489	.926	.807
		PD3	1.119	.901	.067	16.638		
		PD4	1.177	.864	.076	15.542		
	Process innovation	PC1	1.234	.896	.075	16.492	.929	.765
		PC2	1.195	.907	.071	16.848		
		PC3	1.189	.820	.083	14.314		
		PC4	1.273	.873	.080	15.816		
Environmental performance		EnP2	1.088	.880	.069	15.809	.907	.765
		EnP3	1.162	.878	.074	15.756		
		EnP4	1.135	.866	.074	15.394		
Export performance		Exp1	.967	.802	.070	13.733	.904	.759
		Exp2	1.017	.886	.064	15.965		
		Exp3	1.077	.921	.063	17.016		

$$\chi^2(p)=425.627(.003), df=349, \chi^2/df=1.220, CFI=.983, TLI=980, IFI=.983, RMSEA=.032$$

Correlations Analysis

Correlation analysis was used to test the hypothesis. Table 4 presents the correlations among the study variables. The predictors entered into the regression analysis were environmental orientation, social responsibility, and eco-friendly supply chain management. According to Fornell and Larcker (1981), discriminant validity is established if the value of each factor average variance extracted (AVE) accounts for more variance than the square value of each correlation coefficient. When comparing the AVE value and the square correlation coefficient with the AVE value in the confirmatory factor analysis table, it can be seen that the AVE value is relatively larger than the squared correlation coefficient. Therefore, the discriminant validity of the variable was satisfied.

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Table 4. Correlation analysis and discriminant validity analysis

Variable	CR	AVE	1	2	3	4	5	6	7	8
1. Economic responsibility	.878	.642	1							
2. Social responsibility	.864	.615	.432** (.187)	1						
3. Environmental responsibility	.869	.626	.150* (.023)	.095 (.009)	1					
4. Product innovation	.920	.742	.371** (.138)	.605** (.366)	.237** (.056)	1				
5. Process innovation	.926	.807	.513** (.263)	.564** (.318)	.115 (.013)	.564** (.318)	1			
6. Green business strategy	.929	.765	.417** (.174)	.461** (.213)	.273** (.075)	.494** (.244)	.527** (.278)	1		
7. Export performance	.907	.765	.476** (.227)	.528** (.279)	.266** (.071)	.562** (.316)	.504** (.254)	.530** (.281)	1	
8. Environmental performance	.904	.759	.478** (.228)	.421** (.177)	.282** (.080)	.477** (.228)	.549** (.301)	.515** (.265)	.445** (.198)	1

Structural Model Analysis and Hypothesis Verification

Structural model applicability verification is the process of verifying the validity of the theoretical model proposed in the study. If the model's fit is poor, the model cannot be considered valid (Hair et al. 1998). According to the results of the model fit index, a model with $\chi^2 = 425.627$, $df = 349$, $p = .003$, $\chi^2/df = 1.220$, $CFI = .983$, $TLI = .980$, $IFI = .983$, $RMSEA = .032$, the overall fit is judged to be appropriate.

RESULT OF CAUSALITY HYPOTHESIS VERIFICATION

Validation of Hypothesis 1

The first hypothesis was that corporate social responsibility has a prominent impact on environmental performance was divided into Hypothesis 1-1 to Hypothesis 1-3, and the analysis results are as follows:

Hypothesis 1-1: economic factors have a prominent impact on the environmental performance of Chinese manufacturing SMEs was adopted because the standardized path coefficient was .208 ($p < .01$).

Hypothesis 1-2: social factors have a prominent impact on the environmental performance of Chinese manufacturing SMEs was adopted because the standardization path coefficient was .210 ($p < .05$).

Hypothesis 1-3: environmental factors have a prominent impact on the environmental performance of Chinese manufacturing SMEs was adopted because the standardized path coefficient was .138 ($p < .05$).

Validation of Hypothesis 2

The second hypothesis believing that corporate social responsibility has a prominent impact on export performance is divided into Hypothesis 2-1 to Hypothesis 2-3, and the analysis results are as follows.

Hypothesis 2-1: economic factors have a prominent impact on export performance of Chinese manufacturing SMEs was adopted because the standardized path coefficient was .209 ($p < .01$).

Hypothesis 2-2: social factors have a prominent impact on export performance of Chinese manufacturing SMEs was rejected because the standardization path coefficient was .016 ($p > .05$).

Hypothesis 2-3: environmental factors have a prominent impact on export performance of Chinese manufacturing SMEs was adopted because the standardization path coefficient was .152 ($p < .05$).

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Table 5. Result of the causality hypothesis test

Hypothesis	Path	Path coefficient	Standardized coefficient	t	p
Hypothesis 1-1	Economic factors → Environmental performance	.188	.208	2.714	.007**
Hypothesis 1-2	Social factors → Environmental performance	.244	.210	2.153	.031*
Hypothesis 1-3	Environmental factors → Environmental performance	.168	.138	2.234	.025*
Hypothesis 2-1	Economic factors → Export performance	.167	.209	2.657	.008**
Hypothesis 2-2	Social factors → Export performance	.016	.016	.162	.871
Hypothesis 2-3	Environmental factors → Export performance	.164	.152	2.396	.017*

*p<.05, **p<.01, ***p<.001

Moderating Effect Hypothesis Verification

Validation of hypothesis 3

Hypothesis three that green business strategy plays a prominent role in moderating the relationship between CSR and environmental performance was divided into Hypothesis 3-1 ~ Hypothesis 3-3, and the analysis results are as follows.

In this study, hierarchical regression analysis was performed to verify the moderating effect of the green business strategy, and centering was performed to avoid multicollinearity between the independent variable and the moderator variable, and the interaction term. Table 6 is verification that green business strategies have a moderating effect between corporate social responsibility and environmental performance.

According to the first stage, the regression equation with the independent variable and the dependent variable was found to be suitable with the F value = 44.029 (p<.001), and the explanatory power was 38.8% (R²=.388). Based on step 2, it was found that the regression equation model was estimated to be suitable with the F value = 41.016 (p<.001), and the explanatory power was increased by 5.4% (ΔR²=.054) compared to step 1. Lastly, in step 3, which introduced the interaction term between the independent variable and the control variable, the regression model was found to be suitable with the F value = 23.822 (p<.001), and the explanatory power was increased by 0.8% (ΔR²=.008) compared to step 2. As a result of the analysis, it was found that there was no interaction term affecting environmental performance, and the green business strategy had no moderating effect on the relationship between corporate social responsibility and environmental performance. Therefore, all of the 3rd hypotheses were rejected.

Table 6. Relationship between CSR and environmental performance according to green business strategy.

Input variable		step1			step2			step3		
		β	p	VIF	β	p	VIF	β	p	VIF
Independent variable	Economic factors(a)	.279	.000***	1.248	.245	.000***	1.270	.242	.000***	1.378
	Social factors(b)	.390	.000***	1.231	.227	.001**	1.726	.236	.001**	1.766
	Environment factors(c)	.187	.001**	1.024	.136	.012*	1.073	.158	.005**	1.159
Moderator variable	Green business strategy(m)				.302	.000***	1.692	.337	.000***	2.017

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Interaction term	a×m							-.025	.727	1.878
	b×m							.069	.367	2.187
	c×m							.070	.215	1.185
R ²	.388			.442			.450			
ΔR ²				.054			.008			
F	44.029			41.016			23.822			
sig	.000***			.000***			.000***			

Validation of Hypothesis 4

Hypothesis four was that green business strategy has a moderating effect on the relationship between corporate social responsibility and export performance was divided into Hypothesis 41 to Hypothesis 4-3, and the analysis results are as follows.

In this study, hierarchical regression analysis was performed to verify the moderating effect of the green business strategy, and centering was performed to avoid multicollinearity between the independent variable and the moderator variable, and the interaction term. <Table 7> is verification of whether green business strategies have a moderating effect between corporate social responsibility and export performance.

Based on the first stage of the analysis, the regression equation with independent and dependent variables was estimated to be F value = 33.636 (p<.001), indicating the regression equation model was suitable. The explanatory power was 32.7% (R² = .327). According to the second stage, the regression equation in which the moderator variable was input was found to be suitable with F value = 29.611 (p<.001), and the explanatory power increased by 3.7% (ΔR² = .037) compared to the first stage. Finally, in step 3, where the interaction term of the independent variable and the control variable as input, the model of the regression equation estimated with F value = 18.204 (p<.001) was found to be suitable, and the explanatory power was 2.1% (ΔR²) compared to the second step. =.021) increased. As a result of the analysis, based on the third stage, no interaction term affected export performance, indicating that the green business had no moderating effect on the relationship between corporate social responsibility and export performance. Therefore, all hypothesis 4 was rejected.

Table 7. The relationship between social responsibility and export performance according to the eco-friendly management strategy

Input variable		step1			step2			step3		
		β	p	VIF	β	p	VIF	β	p	VIF
Independent variable	Economic factors(a)	.336	.000***	1.248	.308	.000***	1.270	.303	.000***	1.378
	Social factors(b)	.256	.000***	1.231	.120	.102	1.726	.100	.174	1.766
	Environmental factors(c)	.207	.000***	1.024	.165	.005**	1.073	.176	.003**	1.159
Moderator	GBS(m)				.251	.001**	1.692	.180	.022*	2.017
Interaction term	a×m							-.080	.292	1.878
	b×m							-.106	.192	2.187
	c×m							.022	.712	1.185
R ²	.327			.364			.384			
ΔR ²				.037			.021			
F	33.636			29.611			18.204			
sig	.000***			.000***			.000***			

*p<.05, **p<.01, ***p<.001

Validation of Hypothesis 5

Hypothesis five was that product innovation has a moderating effect on the relationship between corporate social responsibility and environmental performance was divided into Hypothesis 51~ Hypothesis 5-3.

In this study, hierarchical regression analysis was performed to verify the moderating effect on product innovation, and centering was performed to avoid multicollinearity between independent and moderating variables and interaction terms. <Table 8> is

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verification of whether product innovation has a moderating effect between corporate social responsibility and environmental performance.

Based on the first stage of the analysis, the regression equation with independent and dependent variables was found to be suitable with the F value = 44.029 ($p < .001$), and the explanatory power was 38.8% ($R^2 = .388$). According to the second stage, the regression equation with the moderating variable was found to be suitable with the F value = 36.347 ($p < .001$), and the explanatory power increased by 2.4% ($\Delta R^2 = .024$) compared to the first stage. Finally, in step 3, where the interaction term between the independent variable and the moderating variable as input, the model of the regression equation was found to be suitable with the F value = 21.447 ($p < .001$), and the explanatory power increased by 1.1% ($\Delta R^2 = .011$) compared to the second step. As a result of the analysis, based on the third stage, it was found that no interaction term affected the environmental performance, so that green business strategy had no moderating effect on the relationship between corporate social responsibility and environmental performance. Therefore, all hypotheses from 5 were rejected.

Table 8. Relationship between social responsibility and environmental performance according to product innovation.

Input variable		step1			step2			step3		
		β	p	VIF	β	p	VIF	β	p	VIF
Independent variable	Economic factors(a)	.279	.000***	1.248	.212	.001**	1.430	.228	.000***	1.460
	Social factors(b)	.390	.000***	1.231	.305	.000***	1.528	.293	.000***	1.786
	Environmental factors(c)	.187	.001**	1.024	.182	.001**	1.025	.168	.003**	1.115
Moderator variable	GBS(m)				.202	.004**	1.689	.152	.041*	1.940
Interaction term	a×m							-.124	.069	1.625
	b×m							.028	.701	1.850
	c×m							-.029	.608	1.137
R ²		.388			.413			.424		
ΔR^2					.024			.011		
F		44.029			36.347			21.447		
sig		.000***			.000***			.000***		

Validation of Hypothesis 6

Hypothesis six predicted that product innovation has a moderating effect on the relationship between corporate social responsibility and export performance was divided into Hypothesis 6-1~ Hypothesis 6-3.

In this study, hierarchical regression analysis was performed to verify the moderating effect on product innovation, and centering was performed to avoid multicollinearity between independent and moderating variables and interaction terms. <Table 9> is verification of whether product innovation has a moderating effect between corporate social responsibility and export performance. Based on the first stage of the analysis, the regression equation with independent and dependent variables was estimated to be F value = 33.636 ($p < .001$) which indicates the model of the regression equation is suitable, and the explanatory power was 32.7% ($R^2 = .327$). According to the second stage, the regression equation with moderator variable estimated to be F value = 34.514 ($p < .001$) which indicates the model of the regression equation is suitable, and the explanatory power increased by 7.3% ($\Delta R^2 = .073$) compared to the first stage. Finally, in step 3, where the interaction term between the independent variable and the moderator variable as input, the model of the regression equation estimated with F value = 22.637 ($p < .001$) was found to be suitable, and the explanatory power increased by 3.7% ($\Delta R^2 = .037$) compared to the second step. As a result of the analysis, it was found that the interaction term affecting export performance had a significant effect only on the interaction term between economic factors and product innovation (standardized regression coefficient = -.162, $p < .05$).

Therefore, product innovation was found to have a moderating effect on the relationship between economic responsibility, export performance, or social responsibility and environmental responsibility did not appear to have a moderating effect on the relationship between export performance. So, Hypothesis 6-1 was adopted, but Hypothesis 6-2 and hypothesis 6-3 were rejected.

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Table 9. Relationship between social responsibility and export performance according to product innovation

Input variable		step1			step2			step3		
		β	p	VIF	β	p	VIF	β	p	VIF
Independent variable	Economic factors(a)	.336	.000***	1.248	.221	.001**	1.430	.232	.000***	1.460
	Social factors(b)	.256	.000***	1.231	.108	.107	1.528	.042	.553	1.786
	Environmental factors(c)	.207	.000***	1.024	.198	.000***	1.025	.208	.000***	1.115
Moderator variable	GBS(m)				.352	.000***	1.689	.276	.000***	1.940
Interaction term	a×m							-.162	.017*	1.625
	b×m							-.095	.187	1.850
	c×m							.083	.138	1.137
R ²		.327			.400			.437		
ΔR ²					.073			.037		
F		33.636			34.514			22.637		
sig		.000***			.000***			.000***		

Validation of Hypothesis 7

Hypothesis seven predicted that process innovation has a moderating effect on the relationship between corporate social responsibility and environmental performance was divided into Hypothesis 7-1~ Hypothesis 7-3.

In this study, hierarchical regression analysis was performed to verify the moderating effect on process innovation, and centering was performed to avoid multicollinearity between independent and moderating variables and interaction terms. Table 11 verified that process innovation has a moderating effect between corporate social responsibility and environmental performance.

Based on the first stage of the analysis, the regression equation with independent and dependent variables was estimated to be F value = 44.029 (p = <.001), which indicates the model of the regression equation is suitable, and the explanatory power was 38.8% (R² = .388). According to the second stage, the regression equation with independent and dependent variables was estimated to be F value = 40.184 (p=<. 001) which indicates the model of the regression equation is suitable, and the explanatory power increased by 4.9% (ΔR²=.049) compared to the first stage. Finally, in step 3, where the interaction term between the independent variable and the moderator variable as input, the model of the regression equation estimated with F value = 23.382 (p < .001) was found to be suitable, and the explanatory power increased by 0.8% (ΔR²= .008)) compared to the second step. As a result of the analysis, based on the third stage, no interaction term affected the environmental performance, indicating that process innovation had no moderating effect on the relationship between corporate social responsibility and environmental performance. Therefore, all hypotheses 7 were rejected.

Table 10. Relationship between social responsibility and environmental performance according to craft process innovation

Input variable		step1			step2			step3		
		β	p	VIF	β	p	VIF	β	p	VIF
Independent variable	Economic factors(a)	.279	.000***	1.248	.215	.000***	1.332	.220	.000***	1.353
	Social factors(b)	.390	.000***	1.231	.300	.000***	1.397	.336	.000***	1.571
	Environmental factors(c)	.187	.001**	1.024	.132	.016*	1.085	.129	.026*	1.224
Moderator variable	GBS(m)				.266	.000***	1.453	.273	.000***	1.497

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Interaction term	a×m							.025	.700	1.489
	b×m							.084	.216	1.664
	c×m							-.013	.814	1.155
R ²	.388			.437			.445			
ΔR ²				.049			.008			
F	44.029			40.184			23.382			
sig	.000***			.000***			.000***			

*p<.05, **p<.01, ***p<.001

Verification of Hypothesis 8

Hypothesis eight was that process innovation has a moderating effect on the relationship between corporate social responsibility and export performance was divided into Hypothesis 8-1~ Hypothesis 8-3.

In this study, hierarchical regression analysis was performed to verify the moderating effect on process innovation, and centering was performed to avoid multicollinearity between independent and moderating variables and interaction terms. Table 11 verifies that the process innovation has a moderating effect between corporate social responsibility and export performance.

Based on the first stage of the analysis, the regression equation with independent and dependent variables was estimated to be F value = 33.636 (p = <.001), which indicates the model of the regression equation is suitable, and the explanatory power was 32.7% (R² = .327). According to the second stage, the regression equation with independent and dependent variables was estimated to be F value = 32.370 (p<.001), which indicates the model of the regression equation is suitable, and the explanatory power increased by 5.8 % (ΔR²=.058) compared to the first stage. Finally, in step 3, where the interaction term between the independent variable and the moderator variable as input, the model of the regression equation estimated with F value =

22.329(p<.001) was found to be suitable, and the explanatory power increased by 4.9%(ΔR²=.049) compared to the second step. As a result of the analysis, based on step 3, it was found that only the interaction term of social factors and process innovation had a significant effect on the interaction term affecting export performance (standardized regression coefficient=-.207, p<.01).

Therefore, it was found that process innovation had a moderating effect on the relationship between social factors and export performance, but did not have a moderating effect on the relationship between export performance and either economic factors or environmental factors.

So, Hypothesis 8-2 was adopted, and Hypothesis 8-1 and hypothesis 8-3 were rejected.

Table 11. Relationship between corporate social responsibility and export performance according to process innovation

Input variable		step1			step2			step3		
		β	p	VIF	β	p	VIF	β	p	VIF
Independent variable	Economic factors(a)	.336	.000***	1.248	.267	.000***	1.332	.253	.000***	1.353
	Social factors(b)	.256	.000***	1.231	.157	.015*	1.397	.069	.295	1.571
	Environmental factors(c)	.207	.000***	1.024	.148	.010*	1.085	.157	.008**	1.224
Moderator variable	GBS(m)				.291	.000***	1.453	.275	.000***	1.497
Interaction term	a×m							-.058	.371	1.489
	b×m							-.207	.003**	1.664
	c×m							.037	.509	1.155
R ²	.327			.385			.434			
ΔR ²				.058			.049			
F	33.636			32.370			22.329			
sig	.000***			.000***			.000***			

*p<.05, **p<.01, ***p<.001

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Hypothesis Test Results

The results of the hypotheses tested in this study are shown in <Table12 >.

Firstly, all hypotheses from hypothesis one, on the effect of corporate social responsibility on environmental performance, were adopted. Next, hypotheses 2-1 and 2-3, regarding the effect of corporate social responsibility on export performance, were adopted but, hypothesis 2-2 was not.

Hypothesis six was also partially accepted: hypothesis 6-1 was accepted, but 6-2 and 6-3 were not. In terms of hypothesis 8 on the moderating role of process innovation in the relationship between corporate social responsibility and export performance, hypothesis 8-2 was accepted, but 8-1 and 8-3 were rejected.

All hypotheses from 3 regarding the moderating role of green business strategy in the relationship between corporate social responsibility and environmental performance were rejected. Along with all hypotheses from four, five, and seven.

Table 12. Hypothesis test results

Hypothesis	Path	Result
Hypothesis 1	CSR→ Environmental performance	Supported
Hypothesis 1-1	Economic responsibility→ Environmental performance	Supported
Hypothesis 1-2	Social responsibility→ Environmental performance	Supported
Hypothesis 1-3	Environmental responsibility→ Environmental performance	Supported
Hypothesis 2	CSR→ Export performance	Supported
Hypothesis 2-1	Economic responsibility→ Export performance	Supported
Hypothesis 2-2	Social responsibility→ Export performance	Supported
Hypothesis 2-3	Environmental responsibility→ Export performance	Supported
Hypothesis 3	GBS has a positive moderating impact on the relationship between CSR and environmental performance	Rejected
Hypothesis 4	GBS has a positive moderating impact on the relationship between CSR and export performance	Rejected
Hypothesis 5	Product innovation has a positive moderating impact on the relationship between CSR and environmental performance	Rejected
Hypothesis 6-1	Product innovation has a positive moderating impact on the relationship between economic responsibility and export performance	Supported
Hypothesis 6-2	Product innovation has a positive moderating impact on the relationship between social responsibility and export performance	Rejected
Hypothesis 6-3	Product innovation has a positive moderating impact on the relationship between environmental responsibility and export performance	Rejected
Hypothesis 7	Process innovation has a positive moderating impact on the relationship between CSR and environmental performance	Rejected
Hypothesis 8-1	Process innovation has a positive moderating impact on the relationship between economic responsibility and export performance	Rejected
Hypothesis 8-2	Process innovation has a positive moderating impact on the relationship between social responsibility and export performance	Supported
Hypothesis 8-3	Process innovation has a positive moderating impact on the relationship between environmental responsibility and export performance	Rejected

DISCUSSION AND CONCLUSION

This research studied Chinese small and medium-sized manufacturing enterprises by empirically investigating the relationship between CSR, environmental and export performance, while also examining the moderating impact of green business strategy and innovation. The outcomes of the tested hypotheses are summarized as follows.

First, hypothesis 1 confirms the influence of CSR on environmental performance, with a substantial p-value. The influence of CSR on environmental performance is significant. As a result, the firm's organizational culture has been significantly ameliorated because satisfying shareholders' requirements can considerably enhance a company's environmental performance. Corporate

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investments in staff, better staff health and safety, equity, and charity can prominently improve firm environmental performance. Green practices like the control of emissions and discharges, waste recycling and reuse, eco-friendly design, and process have a beneficial impact on company environmental performance.

Second, CSR has a positive impact on export performance. Companies comply with stakeholders' requirements, reduce operating costs from the perspective of social responsibility and create profitable spin-off technologies that can significantly improve corporate export performance. The firm follows regulatory protections and creates a solid environmental policy, which will considerably minimize trash outputs and the probability of environmental damages. As a result, the corporate's export performance will increase dramatically.

Third, as H3 and H4 on green business strategy have a positive moderating impact on the relationship between CSR, environmental and export performance were rejected. When managers and employees see ecological issues as opportunities to improve corporate reputation and increase production efficiencies, they are willing to prompt and implement proactive initiatives that inspire more eco-friendly clients. Therefore, companies which have green environmental practices, available technologies, and management experience, and those which receive recognition, are exceptionally motivated and committed to the organization. Additionally, these factors are critical to the enactment of sustainable development and the advancement of performance. The two former results show that manufacturing companies with a greater green business strategy put ecological issues into strategic planning to promote the implementation of CSR, which will improve corporate reputation, and increase production efficiencies and performance.

This paper's outcome might be explained by the fact that the basic framework of the company's green business strategy in the Chinese market has not overcome the restrictions of underdeveloped nations. Although some firms have a high status, some rules and procedures highlight pre-modern specialties, such as prejudiced awareness and inappropriate circumstances in Chinese market companies, which have limited and conflicted with corporate green business strategy to some extent.

Finally, H5 and H7 that product and process innovation have a positive moderating impact on the relationship between CSR and environmental performance were rejected. This means there is no moderating effect between CSR and environmental performance. These findings mean that not all CSR efforts add value to the enterprise since many of them raise expenses (Hillman & Keim, 2001). As a result of verification of the moderating effect of innovation in the relationship between CSR and export performance, product innovation has a moderating impact on economic responsibility, and process innovation has a moderating impact on social responsibility and export performance. The conclusions of this paper promote the idea that the fundamental prominence of CSR to better environmental and export performance.

CSR can help maximize performance while creating competitiveness for SMEs rather than being a business risk and financial burden. The moderating effect of innovation indicates that implying that SMEs must recognize the necessity to introduce innovation into their operations to remain competitive. This supports the RBV theory which claims that embracing innovation to maximize a company's resources is crucial for success (Grant, 1991). This study has also illustrated that the relevance of innovation concerning each pillar of CSR is subtly different. Product innovation is expected to influence economic responsibility, but not social or environmental responsibility. Process innovation is reported to affect social responsibility, but not economic or environmental responsibility.

These results have a variety of implications for studies on CSR, export and environmental performance.

Companies should actively take part in CSR practices if the local government encourages these activities. Enterprises can implement CSR which is necessary for their growth by unceasingly identifying distinctive product and process strategies, acquiring capabilities, constructing or revolutionizing core competencies, and integrating ecological sustainability into manufacturing. Companies cultivate the corporate charitable cultural atmosphere, which helps to achieve a win-win situation for corporate values and social values. Liu Ying (2015) found that corporate philanthropy can not only enhance the corporate reputation of social responsibility but also contribute to the corporate image of capabilities. It can also enhance corporate reputation and repair the adverse effects of a company's irresponsible behavior in society to a certain extent (Brammer & Millington, 2005). Companies must also pay close attention to the environmental concerns of stakeholders. Additionally, the authority should energetically formulate appropriate environmental standards policies, encouraging the adoption of CSR activities in manufacturing companies to enhance innovation, and improve manufacturing companies' competitive advantage.

Based on some of the limitations of this study, future research is directed as follows. First, the corporate social responsibility of this study could be a variable that cannot be reflected in performance in a short period. Therefore, in future studies, if the surveyed companies are reinvestigated after a certain period and compared with the current results, it is possible to more accurately and concretely find out the performance improved by corporate social responsibility. This would be a very meaningful study of corporate social responsibility, export and environmental performance. Second, this study was conducted by designating Guangdong Province, which has strong export strength from China. Although the size of the sample was adequate enough to represent all SMEs in the industry, it is hard to underestimate the difficulty in summarizing outcomes from sampling to populations to other industries. Even though this study sought to minimize variations between SMEs by sampling solely in the manufacturing industry, SMEs are by definition highly varied in their features. The limitation is that it is difficult to represent the entire manufacturing companies in China

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because the region is limited. Therefore, future studies need further research to be more meaningful, such as adding more coastal regions such as Shanghai, Shandong, Fujian, and Zhejiang, which have high export strength. Third, the current world market environment is changing and fluctuating rapidly. These situational variables can play a very important role in a company's strategic direction. Therefore, in future research, it is considered that it will be more meaningful if the research is conducted by having variables such as market volatility as a controlling variable. Another approach is a research study that compares proactive CSR in large enterprises with SMEs and investigates the level to which SME resource limitations can be mitigated by capabilities that stem from their unique organizational characteristics. Individual SME owners–managers and government agencies alike might benefit greatly from such studies.

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