



# KEY PUSHERS OF CORPORATE ENVIRONMENTAL STRATEGY IN BANGLADESH GARMENTS INDUSTRY: THE ROLE OF STAKEHOLDER PRESSURE

Muhammad Misbahul Islam<sup>1</sup>, MD Al Sani<sup>2</sup>, Sayham Sabbir Hadi<sup>3</sup>

<sup>1</sup>Business School, Shandong Normal University, Shandong Jinan, China

<sup>2</sup>Business School, Shandong Normal University, Shandong Jinan, China

<sup>3</sup>Business Economics and Management, Chongqing University of Post and Telecommunication

Article DOI: <https://doi.org/10.36713/epra25918>

DOI No: 10.36713/epra25918

## ABSTRACT

The textile and garment industries of Bangladesh are one of the main economic contributors to the overall nation's GDP. This sector has been facing tremendous pressure and scrutiny locally and globally due to environmental issues. This study investigates how government pressure (GP) and customer pressure (CP) influence corporate environmental strategies (CES) in the garment industry of Bangladesh. Applying cross-sectional design, data has been collected by online survey with the 305 respondents' garments professional, and Partial Least Squares Structural Equation Modeling (PLS-SEM) has been used. As for statistical analysis, R-programming has been deployed. The result shows that the pressure from the government and customers is both positive on corporate environmental strategy, but customer pressure outweighs the government pressure. These findings highlight the stakeholder pressure on firms to shape environmental practices in developing economic contexts like Bangladesh. This study offers practical implications for the business owner and policymaker to incorporate environmentally friendly practices by meeting the customers' demands and producing environmentally friendly apparel outlets and for policymakers by intensifying the monitoring and compliance framework and incentive-based initiatives to support businesses in making a sustainable economy.

**KEYWORDS:** Corporate Environmental Strategy, Government Pressure, Customer Pressure, Bangladesh, Garment Industry, PLS-SEM, R

## 1. INTRODUCTION

Sustainability has become the biggest concern in the global manufacturing industries due to environmental degradation, climate change and resource scarcity that threatens the long term economic and social development. Among the manufacturing sector, garments and textile industries have been frequently gauged as one of most environments intensive due to high water consumption, energy consumption, chemical use and waste production (Sarkis et al., 2011a). These concerns are particularly visible in the emerging economic context like Bangladesh where industrial expansion often precedes strong environmental governance (Tumpa et al., 2019).

Garments industries in Bangladesh play pivotal role in nation's economic growth. The sector contributes over 11% to national GDP and accounts for more than 80% of total export earnings, generating approximately \$45 billion annually and employing over 4 million workers (Shahajada Mia & Masrufa Akter, 2019). As highlighted in (Shahajada Mia & Masrufa Akter, 2019) this quick growth has positioned Bangladesh a top textile and apparel hub in the global context while simultaneously severing the environmental and regulatory scrutiny. Consequently, garments industries face tremendous demands from different stakeholder to adopt corporate environmental strategy (CES) in their entire supply chain (Kabir, 2025). Strategic-level commitments that integrate environmental objectives into organizational policies, decision-making, and long-term planning rather than isolated operational improvements (Wang & Zhang, 2023).

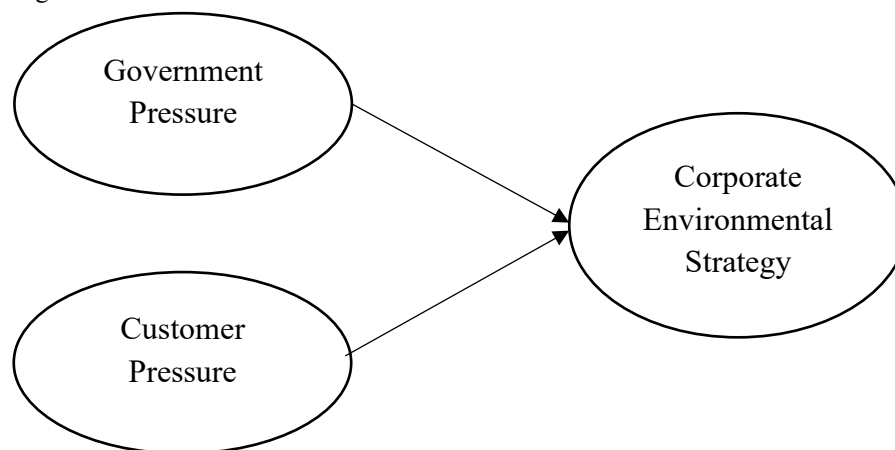
Despite the paramounting concern of environmental consideration, the adoption of corporate environmental strategies among the industries found uneven and dis-uniform. While some firms actively invest in environmental initiatives, others respond minimally or symbolically. Studies such as (Kaizer, n.d.-a) reveal that firms often comply selectively, raising concerns about what truly motivates meaningful environmental strategy adoption. A critical challenge lies in understanding how different external pressure shapes the firms' environmental strategies,

specifically in developing economies where regulatory enforcement may be inconsistent (Tumpa et al., 2019). Without empirical investigation, firms lack in guidance which pushes the corporate environmental strategies. Previous findings consistently shows that stakeholder pressure as a key driver for environmental practices. Encapsulating the institutional theory, studies such as (Hebaz et al., 2024; Siems et al., 2023) Reveals that different pressure sources, notably government pressure (coercive regulations and policies) and customer pressure (buyer requirements, market expectations, and reputation concerns).

Similarly, (Kim & Lee, 2012; Wang & Zhang, 2023) demonstrates that customer demands especially from international buyers can significantly influence firms' environmental decisions. At the same time, regulatory pressure has been shown to vary in effectiveness depending on enforcement capacity and institutional strength, particularly in emerging economies. However, majority of previous works focuses on operational-level green practices (e.g., logistics, supply chain activities) rather than corporate environmental strategy as a strategic construct. Moreover, the empirical finding remains mixed regarding the relative influence of government versus customer pressure, especially in labour-intensive industries such as garments.

Although stakeholder pressure is broadly acknowledged as important, three key gaps persist. First, there is very limited research that directly compares the government and customer pressure in shaping firms' corporate environmental strategies, rather than operation level (Tseng et al., 2019). Second, as noted in the study, strategy-level responses remain unexplored in developing economic context (Reshad et al., 2023). third, despite, Bangladesh has a dominance in textile and garments sector in the global context but quantitative studies explicitly linking stakeholder pressure to CES in this context are scarce (Kaizer, n.d.-a).

Most importantly, current studies do not provide clear pathways to see on which pressure source is more powerful—a gap that is very important for designing effective regulatory frameworks and managerial strategies. In response to these gaps, this study examines how Government Pressure and Customer Pressure influence Corporate Environmental Strategy in the Bangladesh garment industry, guided by the conceptual framework presented in Figure 1.



**Figure 1: Conceptual Framework**

The study's objectives are to find out:

1. Examine the effect of government pressure on corporate environmental strategy.
2. Assess the impact of customer pressure on corporate environmental strategy.
3. Compare the relative strength of these pressures in shaping firms' environmental strategies.

Using survey data from 305 garment industry professionals and applying Partial Least Squares Structural Equation Modelling (PLS-SEM) on R-studio a powerful statistical analysis tool, the study gives empirical evidence grounded in an emerging-economy context.

This study advances the literature in several ways, first it broadens the institutional and stakeholder theory by visibly demonstrating that customer pressure exerts a stronger influence than government pressure on corporate environmental strategy in the Bangladesh garment industry. This finding supports arguments in (Chowdhury et al., 2023) that market-based pressures can outdo the regulatory forces in globally integrated industries. Second, by concentrating explicitly on corporate environmental strategy, the study aligns with the call of (Reshad et al., 2023) that for more strategic-level sustainability research, moving beyond fragmented operational analyses.

From a managerial perspective, the finding suggests that alignment with customer environmental expectations—particularly those of international buyers—is critical for advancing environmental strategy. Firms that proactively meet the expectations of the customer are better positioned in the market and can maintain the legitimacy to stay in the market (Wang & Zhang, 2023). From a policy viewpoint, the relatively weaker influence of government pressure highlights the need for stronger enforcement mechanisms, incentive-based regulations, and collaboration with industry associations. As suggested in (Siems et al., 2023) coordinated governance involving regulators, buyers, and industry bodies may be more effective than regulation alone.

The remainder of the paper is organized as follows. Section 2 reviews the theoretical background and develops the hypotheses. Section 3 describes the research methodology. Section 4 presents the empirical results. Section 5 discusses the findings and implications. Section 6 concludes with limitations and directions for future research, as show in the Figure 2.



Figure 2: Chapter segmentation

## 2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

### 2.1. Institutional Theory and Stakeholder Theory

The adoption of corporate environmental strategy has been thoroughly investigated with the focus of institutional and stakeholder pressure specially in the environmental intensive industries such as garments and apparel (Zhu & Sarkis, 2007). Institutional pressure proclaims that firms' behaviours structure by external pressure by integrating social norms and standards in their activities to get legitimacy and stay in the market (DiMaggio & Powell, 2010). These pressures are basically categorized by Normative, Coercive and Mimetic. Normative pressure comes from market player such buyers, suppliers. Coercive pressure pushed by regulatory bodies like government. And Normative pressure aroused by existing firms to comply the standard and to have a competitive advantage (Kitsis & Chen, 2021; Zhu et al., 2013).

Stakeholder theory proposes that firms should comply with the expectation of every single individual who has the power to influence the outcome of the firm such government, employee, customer, communities (Freeman & McVea, 2001). In the global supply chain, Government and customers expectation are deemed pivotal which eventually structure the firms' environmental strategies (Sarkis et al., 2011b).

In Bangladesh garment's industry, the pressure from institution and stakeholder are profound and highly observable. As it is one of the largest apparel and textile producers in the world, this sector consistently goes through the scrutiny of government and international buyers' requirement concerning environmental performance and strategies (Kaizer, n.d.-b; Rana et al., 2021). Consequently, this study adopts institutional and stakeholder theory to delineate how Government and Customer pressure pushes to firms to incorporate environmental strategies.

### 2.2. Corporate Environmental strategy (CES)

CES refers to organizational activities and initiatives aimed to reduce environmental degradation and damages. These strategies generally include pollution prevention, waste reduction, efficient use of energy and water, wastewater treatment, adoption of cleaner production technologies, and implementation of environmental management systems (Srivastava, 2007) (ZHU & Sarkis, 2012). The literature focuses that CES are often reactive actions to external pressures rather than internally aimed strategic choices, especially in developing economies (Testa et al., 2015). In export industry context, firms often incorporate these activities due to mere comply demands of Government and International rather than driven environmental concern.

Bangladesh garment industries' context, corporate environmental strategies such effluent treatment plants, energy-efficient machinery, and green factory certification have increasingly put forth due to the severe scrutiny of Government and International buyers (Kaizer, n.d.-b). So, the corporate environmental strategy can be understood as an outcome to those two distinct pressures.



### 2.3 Government Pressure and Corporate Environmental Practices

Government pressure is well observed as a critical pusher the corporate environmental strategies, from an institutional theory perspective, government circulate coercive pressure at the firms through environmental regulations, pollution standards, compliance audits, and enforcement mechanisms (Zhu & Sarkis, 2007). Firms respond to the pressure as to avoid penalties, sanctions, operational restrictions and legitimacy loss. Empirical findings show that government pressure positively influence firms' environmental strategies, specifically pollution control and cleaner production initiatives (Mensah & Tang, 2021). However, studies focusing on emerging economies demonstrates that the effectiveness of government pressure is often delimited by weak enforcement, limited monitoring capacity, and regulatory inconsistency (Mani et al., 2016).

In Bangladesh, environmental rules and regulations concerning water pollution, production discharges, and chemical use have been intensified in the reaction of growing environmental damage and international buyers' scrutiny in the garment sector (Hossain et al., 2018; Retamal et al., 2022). Although enforcement challenges tend to continue, prior studies indicate that regulatory requirements and inspections have encouraged garment firms to install wastewater treatment facilities and adopt basic environmental strategies (Chowdhury et al., 2023; Islam et al., 2022). In this vein of the analysis researcher proposes the hypothesis:

*H1. Government pressure positively influences corporate environmental practices in the Bangladesh garment industry.*

### 2.4. Customer Pressure and Corporate Environmental Practices

Customer pressure refers to an overarching normative stakeholder force in global supply chains. International buyers continuous increasing demand for the environmental reprehensible production through supplier codes of conduct, environmental audits, certifications, and sustainability reporting requirements (Kaizer, n.d.-a; Latip et al., 2022; Wang & Zhang, 2023). Firms that fail to meet these demands which may risk the contract of the deal, reputational damage and loss of market access(Chu et al., 2017). The literature consistently figures out that the customer pressure as one of the most influential pushers of corporate environmental strategies, particularly in export-oriented industries within developing economies (Tchaikovsky, 2016). In many cases, buyer requirements exceed domestic regulatory standards and effectively function as private governance mechanisms (Zhu et al., 2013).

Bangladesh is the top apparel and textile producer across the globe, there has world top fashion industry like H&M, Zara, s Nike, PUMA, VF Corporation, and Levi Strauss & Co are consistent buyer from Bangladesh for couple of decades and the growing new fashion industries are making deals with Bangladesh due to its long experience, top quality maintainer and its global dominance (Safaya, 2020) (Kabir, 2025).

In the Bangladeshi garment industry, customer pressure from multinational brands like H&M, Zara, Walmart, and Nike has been shown to play a pivotal role in motivating environmental initiatives such as green factory certification, cleaner production technologies , and environmental management systems (T. Hossain & Islam, 2018; I. B. Islam et al., n.d.). This pressure has escalated as consumers and investors demand more transparency and accountability from the brands they support (Kaizer, n.d.-b). Firms not because of comply to the demands of customers but also to enhance greater market acceptability and good reputation. The researcher proposes the hypothesis on the ground of this:

*H2. Customer pressure positively influences corporate environmental practices in the Bangladesh garment industry.*

## 3. RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter outlines the research methodology adopted to examine the influence of Government Pressure and Customer Pressure on Corporate Environmental Strategy. The study employed a quantitative research approach to analyse the relationships between the independent variables (government and customer pressure) and the dependent variable (corporate environmental strategy). Data were collected through a structured online questionnaire to ensure consistency and reliability in responses.

**Table 3.1: Model description**

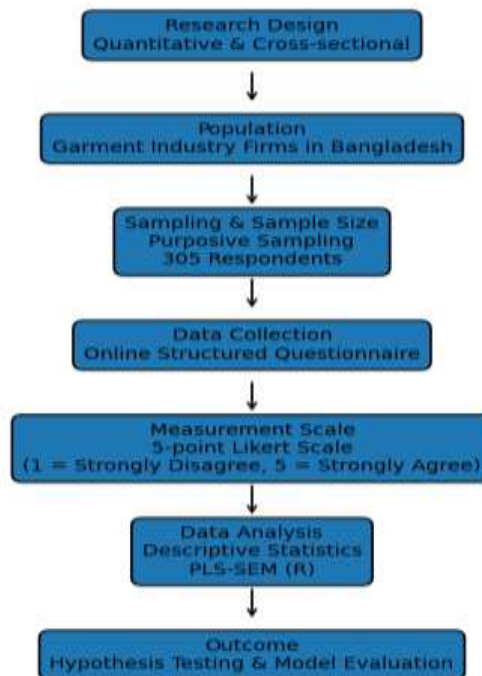
Component	Description
Independent Variables	Government and Customer Pressure
Dependent Variable	Corporate Environmental Strategy
Research Hypotheses	Government and Customer pressures positively influence Corporate Environmental practices.

The research hypotheses propose that government and customer pressures positively influence corporate environmental practices. To measure respondents' perceptions, the study utilized a five-point Likert scale, as presented in Table 3.2. The scale ranges from Strongly Disagree (1) to Strongly Agree (5), providing a standardized method for capturing attitudes toward the study variables. This approach ensures uniform data collection and supports accurate statistical analysis to address the study's research objectives.

**Table 3.2: Likert scale components**

Serial No	Answer	Worth
1	Strongly Disagree	1
2	Disagree	2
3	Neutral	3
4	Agree	4
5	Strongly Agree	5

Figure 3.1 summarizes the key methodological aspects of the study. A quantitative, cross-sectional research design was adopted, with data collected through an online survey using a structured questionnaire. The study targeted export-oriented garment firms in Bangladesh, employing purposive sampling to select organizations that have implemented or are in the process of adopting environmentally oriented practices.



**Figure 3.1: Overview of Research Design**

### 3.2 Population and Sampling

This study focused on employees working in the Bangladesh garment industry to examine the effects of Government Pressure and Customer Pressure on Corporate Environmental Strategy. Data was collected through a self-administered online survey, distributed via email, Facebook, LinkedIn, and WhatsApp. Respondents were identified and contacted through several well-known industry platforms and associations, including the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA), and professional networks such as LinkedIn and industry-related online forums.

Participation was voluntary, and informed consent was obtained from all respondents prior to data collection. A total of 305 valid responses were gathered and used for the final analysis. The survey targeted employees with sufficient knowledge of their organization's environmental practices, ensuring data relevance. The final sample size was appropriate for PLS-SEM analysis, which is suitable for explanatory research involving complex models and moderate sample sizes.

### 3.3 Instrument Development

Data were collected using a structured questionnaire designed to measure Government Pressure, Customer Pressure, and Corporate Environmental Strategy (CES) in the Bangladesh garment industry. The questionnaire was developed based on a review of prior empirical studies on stakeholder pressure and corporate environmental practices, and existing validated measurement items were adapted to fit the study context. All items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree, which is widely used to capture respondents' perceptions and attitudes. To ensure content validity and clarity, the questionnaire was reviewed and refined to suit the operational and regulatory environment of the garment industry. A pilot test was conducted prior to the main survey to assess item clarity and internal consistency. Reliability analysis confirmed satisfactory internal consistency, with Cronbach's alpha values exceeding the recommended threshold of 0.70.

These steps ensured that the instrument was both reliable and appropriate for subsequent PLS-SEM analysis.

Latent variable	Items	Statement	References
Government Pressure	GP1	We prioritize the use of environmentally friendly transportation modes to minimize carbon dioxide emissions.	(Chowdhury et al., 2023; Wang & Zhang, 2023)
	GP2	We actively favor the utilization of materials that are either reusable or recyclable in our operations.	
	GP3	We utilize environmentally conscious packaging solutions when transporting our products.	
	GP4	We promote and improve the dissemination of environmental data throughout our logistics supply chain.	
	GP5	We regularly assess and review the effectiveness of our environmental policies and operational practices.	
Customer Pressure	CP1	International customers demand eco-friendly supply chain practices from our firm.	(Wang & Zhang, 2023)
	CP2	Local customers prefer garments made through environmentally sustainable processes.	
	CP3	Customer sustainability demands influence our decision to adopt green logistics.	
	CP4	Losing customers due to non-compliance with sustainability standards is a concern for our firm.	
	CP5	Customers provide specific guidelines for eco-friendly logistics practices.	
Corporate Environmental Strategy	CES1	Our company has integrated environmental issues into our strategic planning process	(Zhang et al., 2025)
	CES2	When our company comes up with new products or services, environmental issues are always considered.	
	CES3	We collaborate with external partners to improve our environmental strategy.	
	CES4	Environmental considerations have played a role in influencing our marketing approaches for both products and services.	
	CES5	Our firm is engaged in developing products and processes that minimize environmental impact.	

**Table 4.2: Questionnaire with References**

### 3.4 Rationale for purposive sampling

This study adopted a purposive sampling approach to target respondents who possess adequate knowledge of government regulations, customer expectations, and environmental practices within the Bangladesh garment industry. Purposive sampling is particularly suitable when researchers seek information from individuals with specific expertise relevant to the research objectives. Previous studies indicate that firms exposed to regulatory scrutiny and buyer-driven sustainability requirements are more likely to implement environmental strategies, making targeted respondent selection essential (Hair et al., 2019). Accordingly, purposive sampling ensured the collection of informed and reliable data necessary for examining the drivers of corporate environmental strategy.



### 3.5 Ethical Considerations

Participation in this study was voluntary, and informed consent was obtained from all respondents prior to data collection. Respondents were assured of anonymity and confidentiality, and no personal identifying information was collected. The data were used solely for academic purposes, stored securely, and participants were informed of their right to withdraw at any time, ensuring compliance with standard ethical research practices.

## 4. DATA ANALYSIS & RESULT

### 4.1 Introduction

The analysis of data to study stakeholder pressure on adoption of CES practices in the supply chain of Bangladesh garments industry forms the basis of this chapter. The study used R studio to do the structural Equation model analysis. With SEM, researchers can observe complicated relationships between several constructs to measure different paths. The manuscript is separated into two fundamental sections. Analysis of Measurement Model This part determines the reliability, validity, and explanatory strength of observed variables that represent underlying constructs. The proclaimed constructs of interconnections are analyzed in this stage through the evaluation of direct effect. The research presents the findings from the hypothesis tests that were conducted, as well as complete model performance metrics.

### 4.2 The Measurement Model

The interconnections between construct validity and reliability are addressed through the analysis of structural relationships across the PLS-SEM evaluation process. Statistically established standards from previous research guide the verification that latent variables and their indicators remain within acceptable boundary (Hair et al., 2017). Measurement model assessment entails three key evaluations that examine factor loadings and reliability while establishing construct validity via convergent and discriminant validity analyses. These statistical and measurement model assessments follow established guidelines to establish the model's suitability for subsequent analysis.

### 4.3 Factor Loadings

Measurement model validity is mainly assessed using factor loadings, which show how well observed variables represent their latent constructs. (Hair et al., 2019) suggest that loadings above 0.70 are acceptable. Therefore, this study evaluated the factor loadings of all items in the measurement model. Accordingly, this study examined the factor loadings of all items included in the measurement model, as presented in Table 4.1. For Government Pressure, loadings ranged from 0.592 to 0.683. Customer Pressure items showed loadings between 0.500 and 0.620, while Corporate Environmental Strategy items ranged from 0.572 to 0.702. Although several items reported loading below 0.70, all indicators were retained in the measurement model as their values fall within an acceptable range and do not adversely affect the overall reliability and validity of the model. These results suggest that the observed variables adequately measure their respective latent constructs and support the suitability of the measurement model for further analysis.

### 4.4 Reliability

In this research, reliability analysis serves as a fundamental approach for assessing the consistency and stability of the measurement items representing latent constructs. This procedure ensures that the measurement model yields consistent results across different samples. Reliability was evaluated using both Cronbach's alpha and Composite Reliability (CR). According to (Hair et al., 2019), Cronbach's alpha values exceeding 0.70 indicate acceptable internal consistency, reflecting that all items reliably measure the same construct. Similarly, construct reliability is established when Composite Reliability values also exceed the 0.70 threshold.

**Table 4.1: Measurement Model. Construct reliability**

Latent Variable	Item	Loadings <sup>a</sup>	Cronbach's alpha <sup>d</sup>	Composite Reliability (CR)	AVE
Government Pressure	gp1	0.68	0.74	0.76	0.39
	gp2	0.64			
	gp3	0.60			
	gp4	0.60			
	gp5	0.59			
Customer Pressure	cp1	0.56	0.68	0.71	0.33
	cp2	0.59			
	cp3	0.62			
	cp4	0.61			



	cp5	0.50			
Corporate Environmental Strategy	ces1	0.67	0.74	0.77	0.4
	ces2	0.70			
	ces3	0.60			
	ces4	0.57			
	ces5	0.61			

As shown in Table 4.1, the reliability analysis indicates acceptable results for all constructs. Government Pressure achieved Cronbach's alpha of 0.74 and Composite Reliability of 0.76, both exceeding the recommended threshold. Customer Pressure reported a slightly lower Cronbach's alpha of 0.68; however, its Composite Reliability value of 0.71 confirms adequate reliability. Corporate Environmental Strategy demonstrated strong reliability with Cronbach's alpha of 0.74 and Composite Reliability of 0.77. Overall, despite minor deviations in Cronbach's alpha, all constructs satisfy reliability requirements, supporting the robustness of the measurement model for further analysis.

#### 4.5 Construct Validity

Construct validity is essential to confirm that measurement items appropriately reflect their intended theoretical constructs. As suggested by (Fornell & Larcker, 1981), this is assessed through convergent and discriminant validity, which ensures that the indicators reliably measure their respective constructs while remaining conceptually distinct from one another.

#### 4.6 Convergent Validity

Convergent validity assesses the degree to which multiple indicators of the same construct are correlated and adequately represent the underlying concept. This validity is commonly evaluated using the Average Variance Extracted (AVE), which reflects the proportion of variance captured by a construct from its indicators. Although an AVE value of 0.50 or higher is generally recommended to indicate adequate convergent validity (Bagozzi & Yi, n.d.), lower AVE values may still be acceptable when composite reliability values exceed the recommended threshold (Fornell & Larcker, 1981). As shown in Table 4.1, the AVE values for the constructs range from 0.33 to 0.40. Despite being below the ideal cutoff, the constructs demonstrate acceptable convergent validity due to their satisfactory Composite Reliability values, indicating that the indicators adequately represent their respective latent constructs.

#### 4.7 Discriminant Validity: Cross Loadings

Discriminant validity is essential for ensuring that each construct in the model represents a distinct concept. It is assessed by examining cross-loadings, which show how strongly each indicator is associated with its own construct compared to others. As noted by (Hair et al., 2019), discriminant validity is established when an indicator loads more strongly on its intended construct than on any other construct in the model. Table 4.2 presents the cross-loadings, showing that each measurement item loads more strongly on its respective construct than on the other constructs. The indicators of Government Pressure demonstrate higher correlations with their intended construct compared to Customer Pressure and Corporate Environmental Strategy, with gp5 recording the highest loading of 0.645 on Government Pressure. Similarly, the Customer Pressure items exhibit stronger loadings on their own construct than on the remaining constructs, as reflected by cp4 and cp3, which recorded loadings of 0.648 and 0.640, respectively.

The Corporate Environmental Strategy indicators also show substantially higher loadings on their designated construct, with ces5 and ces1 achieving the strongest loadings of 0.802 and 0.789, respectively. These findings highlight that each construct maintains distinct characteristics, thereby confirming the model's discriminant validity.

**Table 4.2: Cross Loadings**

Item	Government pressure	Customer pressure	Corporate Environmental Strategy
gp1	<b>0.476</b>	0.395	0.395
gp2	<b>0.359</b>	0.405	0.405
gp3	<b>0.418</b>	0.344	0.344
gp4	<b>0.49</b>	0.314	0.314
gp5	<b>0.645</b>	0.256	0.256



cp1	0.488	<b>0.291</b>	0.291
cp2	0.546	<b>0.296</b>	0.296
cp3	0.64	<b>0.286</b>	0.286
cp4	0.648	<b>0.272</b>	0.272
cp5	0.601	<b>0.202</b>	0.202
ces1	0.789	0.268	<b>0.268</b>
ces2	0.739	0.317	<b>0.317</b>
ces3	0.7	0.249	<b>0.249</b>
ces4	0.66	0.238	<b>0.238</b>
ces5	0.802	0.213	<b>0.213</b>

#### 4.8 Fornell-Larcker Criterion

The Fornell–Larcker criterion was applied to assess discriminant validity by comparing the square root of AVE with inter-construct correlations. As shown in Table 4.3, the square root of AVE for Government Pressure (0.624), Customer Pressure (0.574), and Corporate Environmental Strategy (0.632) is lower than their respective correlations with other constructs, such as the correlation between Government Pressure and Customer Pressure (0.832) and between Customer Pressure and Corporate Environmental Strategy (0.862). These results indicate high inter-construct correlations and suggest that discriminant validity is not fully supported by the Fornell–Larcker criterion (Fornell & Larcker, 1981). However, cross-loading results confirm that indicators load more strongly on their intended constructs, supporting acceptable construct distinctiveness.

**Table 4.3: Fornell-Larcker criterion**

	GP	CP	CES
GP	<b>0.624</b>	0.832	0.796
CP	0.832	<b>0.574</b>	0.862
CES	0.796	0.862	<b>0.632</b>

#### 4.9 Heterotrait-Monotrait HTMT ratio

This study employed the heterotrait–monotrait (HTMT) ratio to assess discriminant validity, as it is a well-established method in PLS-SEM. The HTMT approach evaluates construct distinctiveness by examining correlations between different constructs. According to (Henseler et al., 2015), HTMT values below 0.85 indicate adequate discriminant validity.

As shown in Table 4.4, the HTMT values between Government Pressure and Customer Pressure (0.786), Government Pressure and Corporate Environmental Strategy (0.723), and Customer Pressure and Corporate Environmental Strategy (0.772) are all below the recommended threshold of 0.85. These results indicate adequate discriminant validity, confirming that the constructs are conceptually distinct and measure different theoretical dimensions.

**Table 4.4: HTMT ratio**

	GP	CP	CES
GP		0.786	0.723
CP	0.786		0.772
CES	0.723	0.772	

#### 4.10 Explanatory Power

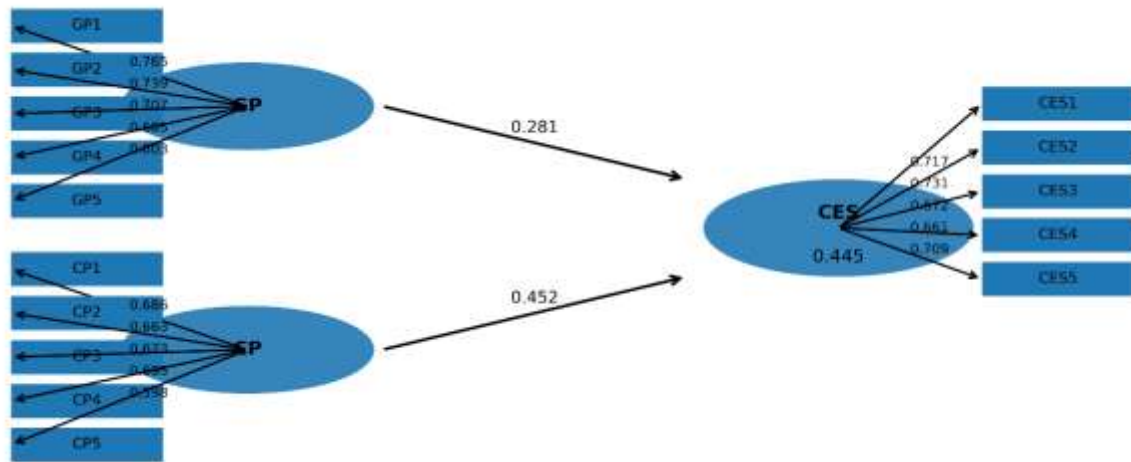
PLS-SEM model evaluation depends on a strong explanatory ability because it demonstrates how well predictors explain outcomes in the table 4.5 . The structural model shows moderate explanatory power, with Government Pressure and Customer Pressure explaining 44.5% of the variance in Corporate Environmental Strategy ( $R^2 = 0.445$ ; adjusted  $R^2 = 0.442$ ). Government Pressure has a small-to-moderate effect ( $f^2 = 0.11$ ), while Customer Pressure has a moderate effect ( $f^2 = 0.217$ ). The  $Q^2$  value of 0.422 indicates strong predictive relevance of the model.

**Table 4.5: Explanatory Power**

Predictors	Outcome(s)	R-square	Adjusted R-square	F-square (F <sup>2</sup> )	Q-square (Q <sup>2</sup> )
GP → CES	CES	0.445	0.442	0.11	0.422
CP → CES	CES			0.217	

**4.11 Analysis of the Measurement and Structural Model**

Figure 4.1 illustrates the PLS-SEM measurement and structural model used in this study. The measurement model shows that all indicators load well on their respective constructs, with most loadings above 0.60, indicating that the items reliably capture Government Pressure, Customer Pressure, and Corporate Environmental Strategy. Government Pressure and Customer Pressure are both positively related to Corporate Environmental Strategy, with Customer Pressure showing the stronger influence ( $\beta = 0.452$ ) compared to Government Pressure ( $\beta = 0.281$ ). The model explains a meaningful portion of variance in Corporate Environmental Strategy ( $R^2 = 0.445$ ), demonstrating adequate explanatory power. Overall, the figure confirms that the measurement model is sound and that the proposed relationships are suitable for hypothesis testing.



**Figure 4.1: The Measurement Model**

**4.12 Structural Model Analysis**

After assessing the measurement model, the structural model was examined to test the proposed hypotheses. The significance of the path coefficients was evaluated using a bootstrapping procedure with 5,000 resamples, as recommended by (Kock, 2018), to obtain reliable confidence intervals and assess hypothesis support. This method enables the evaluation of both the strength and direction of the relationships among the key constructs in the model.

4.13 Direct Relationships and Hypothesis Testing

As shown in Table 4.6, the hypothesis testing results indicate that the proposed direct relationships are statistically significant. H1, which proposes that Government Pressure positively influences Corporate Environmental Strategy, is supported. The analysis reveals a positive and significant relationship between Government Pressure and Corporate Environmental Strategy ( $\beta = 0.2808, t = 5.763, p < 0.001$ ), suggesting that regulatory policies and government interventions encourage firms to adopt environmental strategies. Similarly, H2, which posits that Customer Pressure positively influences Corporate Environmental Strategy, is strongly supported. The results show a substantial positive relationship between Customer Pressure and Corporate Environmental Strategy ( $\beta = 0.4516, t = 8.094, p < 0.001$ ). This finding highlights the critical role of customer expectations in motivating firms to strengthen their environmental practices. Overall, the results confirm that both government and customer pressures significantly drive the adoption of corporate environmental strategies, with customer pressure exerting a stronger influence.

Path	Beta ( $\beta$ )	t-value	p-value	R-square	Adjusted R-square	Decision
GP → CES	0.2808	5.763	<0.001	0.445	0.442	Supported
CP → CES	0.4516	8.094	<0.001			Supported

**Table 4.6: Direct Effects [Hypothesis testing]**

#### 4.14 Analysis of the Structural Model

The structural model examines the direct effects of Government Pressure and Customer Pressure on Corporate Environmental Strategy (CES). As shown in Figure 4.2, both constructs positively influence CES. Government Pressure shows a moderate effect ( $\beta = 0.281$ ), while Customer Pressure has a stronger impact ( $\beta = 0.452$ ). Together, these factors explain 44.5% of the variance in CES ( $R^2 = 0.445$ ), indicating that customer-driven forces play a more influential role than regulatory pressure in shaping corporate environmental strategies.

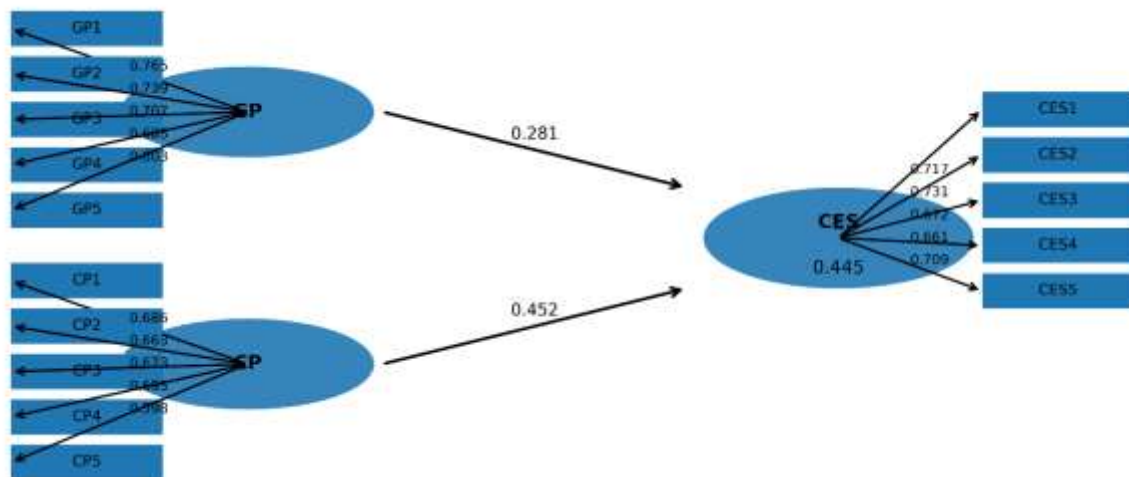


Figure 4.2: The Structural Model

## 5. DISCUSSION

### 5.1 Key Findings

This study explored how government and customer pressures shape corporate environmental strategies (CES) using PLS-SEM analysis. The findings offer several key takeaways. Customer Pressure stood out as the strongest influence, having a clear and significant positive effect on CES. This shows that companies are highly attuned to what their customers and stakeholders expect when it comes to environmental responsibility and sustainable practices. Government Pressure also had a positive and meaningful impact on CES, though its effect was less pronounced. This suggests that while regulations and government initiatives encourage firms to adopt greener approaches, they're not the main force driving change. Overall, the model explained a significant portion of the variation in CES, highlighting the crucial role of external pressures—especially from customers—in shaping how companies approach environmental issues.

### 5.2 Practical Implications

The results suggest that customers are the main drivers of corporate environmental strategies. Managers should track customer expectations, invest in sustainable products and processes, and communicate their environmental efforts clearly to build trust and competitiveness. Although government pressure is weaker, compliance with regulations remains essential for legitimacy and risk management. Firms should align strategies with regulatory standards and leverage available incentives. Overall, environmental strategies should be viewed as a strategic opportunity, not just an obligation. Responding effectively to customers and regulatory demands enhances reputation, competitiveness, and long-term sustainability.

## 6. CONCLUSION AND RECOMMENDATIONS

This study examined how Government Pressure and Customer Pressure shape Corporate Environmental Strategy in Bangladesh's garment industry. Based on data from 305 valid online survey responses analyzed using PLS-SEM in R, the results indicate that external forces significantly influence how firms develop their environmental strategies. Customer Pressure emerged as the most powerful driver, showing that buyer demands, market expectations, and stakeholder awareness strongly encourage companies to adopt sustainable practices. While Government Pressure also had a positive effect, its influence was comparatively weaker, suggesting that market-driven factors are more effective than regulatory measures in promoting environmental initiatives within the garment sector. Overall, the research offers empirical evidence that external stakeholder pressures are crucial in driving firms' environmental strategies, providing valuable guidance for both scholars and industry practitioners in developing economies.



### 6.1 Practical Recommendations

Drawing on the study's findings, several practical recommendations can be made. Managers in the garment industry should focus on customer-driven environmental actions, such as adopting sustainable sourcing practices, minimizing waste, and maintaining transparent environmental reporting to align with rising buyer and consumer expectations. Firms are encouraged to move beyond mere regulatory compliance by embedding environmental strategies into their core operations, strengthening both competitiveness and long-term sustainability. At the same time, policymakers should reinforce environmental regulations through stronger enforcement and provide incentives or support programs that motivate companies to adopt more advanced environmental practices. Additionally, industry associations have an important role in promoting environmental awareness, offering training initiatives, and facilitating the exchange of best practices among garment manufacturers.

### 6.2 Limitations

Despite its contributions, this study has several limitations. First, the data were collected using a cross-sectional survey, which limits the ability to capture changes in environmental strategies over time. Second, the study relied on self-reported data, which may be subject to response bias. Third, the sample was limited to the Bangladesh garment industry, which may restrict the generalizability of the findings to other industries or countries.

### 6.3 Future Research Directions

Future studies can build on this research by using long-term designs to explore how companies' environmental strategies change over time. Including other industries or developing countries would help make the results more widely applicable. Researchers could also look at internal factors—like leadership commitment, company culture, and technological strength—to gain a fuller picture of what drives firms to adopt environmental strategies. Using qualitative or mixed research methods may also provide deeper insights into how managers make decisions about sustainability.

### 6.4 Final Thoughts

In summary, this study highlights the increasing role of external pressures—especially from customers—in influencing corporate environmental strategies within Bangladesh's garment industry. Although government regulations are still important, market-driven factors seem to motivate firms more strongly to adopt sustainable practices. By aligning their environmental actions with both customer expectations and legal requirements, garment manufacturers can improve their environmental performance, strengthen competitiveness, and support sustainable growth in the industry.

## REFERENCES

1. Bagozzi, R. R., & Yi, Y. (n.d.). *On the evaluation of structural equation models*.
2. Chowdhury, M. A. A., Rahman, M. D., Mohammad Morshedur, & Ali, M. (2023). *Demystifying the role of stakeholder pressure and competitive advantage on environmental performance of readymade garments industries in Bangladesh*. *Journal of Environmental Accounting and Management*, 11(2), 115–138. <https://doi.org/10.5890/JEAM.2023.06.001>
3. Chu, S., Yang, H., Lee, M., & Park, S. (2017). *The Impact of Institutional Pressures on Green Supply Chain Management and Firm Performance: Top Management Roles and Social Capital*. *Sustainability*, 9(5), 764. <https://doi.org/10.3390/su9050764>
4. DiMaggio, P., & Powell, W. W. (2010). *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields* (translated by G. Yudin). *Journal of Economic Sociology*, 11(1), 34–56. <https://doi.org/10.17323/1726-3247-2010-1-34-56>
5. Fornell, C., & Larcker, D. F. (1981). *Evaluating Structural Equation Models with Unobservable Variables and Measurement Error*. *Journal of Marketing Research*, 18(1), 39. <https://doi.org/10.2307/3151312>
6. Freeman, R. E. E., & McVea, J. (2001). *A Stakeholder Approach to Strategic Management*. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.263511>
7. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM) (Second edition)*. SAGE.
8. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). *When to use and how to report the results of PLS-SEM*. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
9. Hebaz, A., Oulfarsi, S., & Sahib Eddine, A. (2024). *Prioritizing institutional pressures, green supply chain management practices for corporate sustainable performance using best worst method*. *Cleaner Logistics and Supply Chain*, 10, 100146. <https://doi.org/10.1016/j.clscn.2024.100146>
10. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). *A new criterion for assessing discriminant validity in variance-based structural equation modeling*. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
11. Hossain, L., Sarker, S. K., & Khan, M. S. (2018). *Evaluation of present and future wastewater impacts of textile dyeing industries in Bangladesh*. *Environmental Development*, 26, 23–33. <https://doi.org/10.1016/j.envdev.2018.03.005>
12. Hossain, T., & Islam, N. (2018). *Branding of Bangladeshi Apparel Products in International Market: A Survey*.



13. Islam, I. B., Haque, A., Kaniz, A., & Islam, I. B. (n.d.). Exploring Consumer-Based Brand Equity In Bangladesh: A Study On Bangladesh Apparel Industry.
14. Islam, Md. T., Hassan, Md. N., Kabir, M., Robin, Md. A. H., Farabi, Md. M. H., & Alauddin, Md. (2022). Sustainable Development of Apparel Industry in Bangladesh: A Critical Review. *Journal of Management Science & Engineering Research*, 5(2), 45–62. <https://doi.org/10.30564/jmser.v5i2.4978>
15. Kaizer, T. (n.d.-a). GREEN GARMENT FACTORIES IN BANGLADESH: MOTIVATION AND CHALLENGES.
16. Kaizer, T. (n.d.-b). GREEN GARMENT FACTORIES IN BANGLADESH: MOTIVATION AND CHALLENGES.
17. Kim, S., & Lee, S. (2012). Stakeholder pressure and the adoption of environmental logistics practices: Is eco-oriented culture a missing link? *The International Journal of Logistics Management*, 23(2), 238–258. <https://doi.org/10.1108/09574091211265378>
18. Kitsis, A. M., & Chen, I. J. (2021). Do stakeholder pressures influence green supply chain Practices? Exploring the mediating role of top management commitment. *Journal of Cleaner Production*, 316, 128258. <https://doi.org/10.1016/j.jclepro.2021.128258>
19. Kock, N. (2018). SHOULD BOOTSTRAPPING BE USED IN PLS-SEM? TOWARD STABLE P-VALUE CALCULATION METHODS. *Journal of Applied Structural Equation Modeling*, 2(1), 1–12. [https://doi.org/10.47263/JASEM.2\(1\)02](https://doi.org/10.47263/JASEM.2(1)02)
20. Latip, M., Sharkawi, I., Mohamed, Z., & Kasron, N. (2022). The Impact of External Stakeholders' Pressures on the Intention to Adopt Environmental Management Practices and the Moderating Effects of Firm Size. *Journal of Small Business Strategy*, 32(3). <https://doi.org/10.53703/001c.35342>
21. Mani, V., Gunasekaran, A., Papadopoulos, T., Hazen, B., & Dubey, R. (2016). Supply chain social sustainability for developing nations: Evidence from India. *Resources, Conservation and Recycling*, 111, 42–52. <https://doi.org/10.1016/j.resconrec.2016.04.003>
22. Rana, M. B., Allen, M. M. C., & Servais, P. (2021). Supplier internationalization in the global apparel value chain from Bangladesh to Ethiopia: The buyers business model, institutions and entrepreneurial capability. In M. B. Rana & M. M. C. Allen (Eds), *Upgrading the Global Garment Industry*. Edward Elgar Publishing. <https://doi.org/10.4337/9781789907650.00008>
23. Reshad, A. I., Biswas, T., Agarwal, R., Paul, S. K., & Azeem, A. (2023). Evaluating barriers and strategies to sustainable supply chain risk management in the context of an emerging economy. *Business Strategy and the Environment*, 32(7), 4315–4334. <https://doi.org/10.1002/bse.3367>
24. Retamal, M., Martinez-Fernandez, C., Sharpe, S., ILO Regional Office for Asia and the Pacific., & International Labour Organization. (2022). Assessing the impact: Environmental impact assessment in the textile and garment sector in Bangladesh, Cambodia, Indonesia and Viet Nam. ILO. <https://doi.org/10.54394/YCEP9777>
25. Sarkis, J., Zhu, Q., & Lai, K. (2011a). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, 130(1), 1–15. <https://doi.org/10.1016/j.ijpe.2010.11.010>
26. Sarkis, J., Zhu, Q., & Lai, K. (2011b). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, 130(1), 1–15. <https://doi.org/10.1016/j.ijpe.2010.11.010>
27. Shahajada Mia & Masrufa Akter. (2019). Ready-Made Garments Sector of Bangladesh: Its Growth, Contribution and Challenges. *Economics World*, 7(1). <https://doi.org/10.17265/2328-7144/2019.01.004>
28. Siems, E., Seuring, S., & Schilling, L. (2023). Stakeholder roles in sustainable supply chain management: A literature review. *Journal of Business Economics*, 93(4), 747–775. <https://doi.org/10.1007/s11573-022-01117-5>
29. Srivastava, S. K. (2007). Green supply-chain management: A state-of-the-art literature review. *International Journal of Management Reviews*, 9(1), 53–80. <https://doi.org/10.1111/j.1468-2370.2007.00202.x>
30. Tchaikovskiy, Z. (2016). The Relationship Between Sustainable Supply Chain Management, Stakeholder Pressure, and Financial Performance.
31. Testa, F., Iraldo, F., Vaccari, A., & Ferrari, E. (2015). Why Eco-labels can be Effective Marketing Tools: Evidence from a Study on Italian Consumers. *Business Strategy and the Environment*, 24(4), 252–265. <https://doi.org/10.1002/bse.1821>
32. Tseng, M.-L., Islam, M. S., Karia, N., Fauzi, F. A., & Afrin, S. (2019). A literature review on green supply chain management: Trends and future challenges. *Resources, Conservation and Recycling*, 141, 145–162. <https://doi.org/10.1016/j.resconrec.2018.10.009>
33. Tumpa, T. J., Ali, S. M., Rahman, Md. H., Paul, S. K., Chowdhury, P., & Rehman Khan, S. A. (2019). Barriers to green supply chain management: An emerging economy context. *Journal of Cleaner Production*, 236, 117617. <https://doi.org/10.1016/j.jclepro.2019.117617>
34. Wang, M., & Zhang, G. (2023). What motivates firms to adopt a green supply chain and how much does it matter? *Frontiers in Environmental Science*, 11, 1227008. <https://doi.org/10.3389/fenvs.2023.1227008>
35. Zhang, W., Zhang, F., & Cheng, Z. (2025). Green entrepreneurial orientation and green human capital: Unlocking the potential of green supply chain integration through corporate environmental strategy. *Humanities and Social Sciences Communications*, 12(1), 655. <https://doi.org/10.1057/s41599-025-04980-z>
36. Zhu, Q., Sarkis, J., & Lai, K. (2013). Institutional-based antecedents and performance outcomes of internal and external green supply chain management practices. *Journal of Purchasing and Supply Management*, 19(2), 106–117. <https://doi.org/10.1016/j.pursup.2012.12.001>



37. Hair, J. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications.
38. Kabir, M. (2025). *Bangladesh RMG at Crossroads: Sustaining Growth Amid Global Shifts*. Bangladesh Garment Manufacturers & Exporters Association (BGMEA).
39. Mensah, Y. A., & Tang, L. (2021). *The relationship among green human capital, green logistics practices, green competitiveness, social performance and financial performance*. *Journal of Manufacturing Technology Management*.
40. Safaya, S. (2020). *Fashion brands increasingly 'favour' garments Made in Bangladesh*. *GlobalData*.
41. Zhu, Q., & Sarkis, J. (2007). *The moderating effects of institutional pressures on emergent green supply chain practices and performance*. *International Journal of Production Research*.
42. ZHU, Q., & Sarkis, J. (2012). *Green supply chain management innovation diffusion and its relationship to organizational improvement: An ecological modernization perspective*. *Journal of Engineering and Technology Management*.