

Effect of Inclusive Leadership on Sustainable Supply Chain Performance: Mediating Roles of Psychological Safety and Green Employee Empowerment

Fariha Tasnim, Tunjera Rouf, Anzam Masud Ovi

farihatasnim355@gmail.com, tunjerarouf@gmail.com, anzamovi23@gmail.com

Abstract

While there is a general increase in organizational investment in sustainable infrastructure and technology, the connection between leader behavior and sustainable supply chain performance (SSCP) is not well understood and the psychological mechanisms by which organizations are able to make this connection are poorly understood. In countries like Bangladesh, a country undergoing a rapid transition to an emerging economy, the need for inclusive leadership is particularly acute and is now recognized as a key element in sustainability efforts, yet the path to achieving performance outcomes has not been proven empirically. This study investigates the relationship between inclusive leadership and sustainable supply chain performance (SSCP) by examining the role of psychological safety and green employee empowerment through the lens of social exchange theory in the product-based corporate sector in Bangladesh. A cross-sectional survey was conducted among 300 professionals engaged in the supply chain, utilizing partial least squares structural equation modeling (PLS-SEM) analyzed with SmartPLS 4. The results indicate that while inclusive leadership did not have a significant direct effect on SSCP, it fully mediated its effects on psychological safety and green employee empowerment. Both mediators were found to be significant and positively predictive of SSCP, and inclusive leadership significantly enhanced both. The findings build on social exchange theory by demonstrating that the psychological states created by leadership actions influence reciprocity towards sustainability outcomes, providing evidence-based recommendations for supply chain managers and policymakers to integrate leadership development into organizational sustainability strategies.

Keywords: *Inclusive Leadership; Psychological Safety; Green Employee Empowerment; Sustainable Supply Chain Performance; Social Exchange Theory; PLS-SEM*

1. Introduction

1.1 Background of the Study

The supply chain is one of the most impactful areas that can contribute to delivering the global sustainability agenda. Over 90% of the greenhouse gas emissions, water consumption, and waste of a typical organization are due to its supply chain (Ernst & Young, 2022). This has placed Sustainable Supply Chain Performance (SSCP) on the strategic agenda of product-intensive companies around the world (Agyabeng-Mensah et al., 2020). It is strengthened by the adoption of regulatory frameworks that include environmental and social aspects in the management of supply chains (SCM), such as the EU Corporate Sustainability Reporting Directive (CSRD) in developed economies. However, the structural and technological measures do not suffice. Measures such as green procurement, circular logistics, and digital tracking do not trigger a transition towards sustainable practice, without a suitable human and organizational context that fosters the uptake of the workforce. (Bag et al., 2020; Bhutto et al., 2021a). The absence of organizational-level initiatives to improve the outcomes of green purchasing and manufacturing practice implementation is evidenced by the measurable gaps in practice uptake and impact observed even in firms that have adopted these practices in Bangladesh (Helal et al., 2024). This disconnection has captured increased research interest in leadership as a key organizational pathway towards employee behavior consistent with sustainability policy and, consequently, supply chain results.

Over the last few years, researchers have started to pay more attention to inclusive leadership and its unique ability to activate workforce diversity to achieve sustainability goals. Inclusive leadership is characterized by openness, accessibility, and fairness in participation and communication, which directly correlates to team psychological safety, and ultimately to employee voice and innovative results (T. Li & Tang, 2022a; Mohase et al., 2025a). Inclusive leadership is a different approach from directive and transactional leadership styles in that it sees each member as important and valuable to the interdependent and complex nature of a product-based supply chain. Affecting employee voice rather than directly, its impact is mediated by other factors, not just openness, and is especially relevant for white-collar workers who are not required to work in the office or who work in hybrid roles. While the concept of inclusive leadership has not been

directly explored in the Bangladeshi context, the current body of evidence suggests that it has an indirect impact because of staff commitment to sustainability and on other relational aspects, such as strategic vendor relationship management (Chowdhury et al., 2023a, Rahman et al., 2023a). In the Bangladeshi context, this evidence supports the premise that human and relational processes are the main drivers of SSCP, in addition to the role of technology.

It is hypothesized that this influence occurs in two ways: psychological safety and green employee empowerment. Previous research findings suggest that psychological safety exists as a mediator between inclusive leadership and the willingness of employees to speak up and innovate on sustainability issues, with employees who feel safe reporting environmental risks and sustainability concerns more likely to take action on sustainability goals (T. Li & Tang, 2022a). Both are cognitive-relational, as well as motivational-behavioural pathways that are hypothesized to emerge from the inclusive leadership experience. While overlapping, they are not the same in practice: while psychological safety can be created on the relationship level between employees and the organization based on inclusive leadership practices, green employee empowerment is the autonomy inclusive leadership can provide about sustainability decisions at the task level. Inclusive leadership is mediated both relationally, and through processes related to work tasks, so examining these two mediators separately, as is done in previous studies examining just one mediator, is not sufficient to reveal the full extent to which inclusive leadership affects outcome.

Furthermore, industrialization is promoted by value chains that face resource scarcity, weak regulatory frameworks, and managerial issues across South Asia, particularly in Bangladesh, impacting environmental and social sustainability, which is an area of study that is seriously under-researched in Bangladesh (Bhutto et al., 2021a; Iqbal et al., 2020). Along with the expansion of the pharmaceutical, leather, and light manufacturing businesses, Bangladesh is the second largest exporter of ready-made garments in the world with the most extensive product-based supply chain in the developing world. Since 2013, it has undergone significant sustainability transformations in its garment supply chain, although it is not fully complete (Islam, 2025). However, much of this positive change has only been felt by a small number of top-tier exporters, and there has been relatively little improvement in economic and social sustainability across the garment sector (Rabby and Rahman, 2023; Islam 2025). Beyond garments, in addition to clothes, recent research based in Bangladesh paints a similar picture: the economic-sustainability benefits are limited and

environmental and social sustainability initiatives continue to have a lot of work to do, including low digital literacy and a lack of resources (Prangan et al., 2025a); while firms report mixed but measurable gains from environmental and social initiatives, sustainable supply chain practices, especially environmental, are starting to influence consumer purchase intentions (Abir et al., 2025a). Despite the expanding literature on sustainability practices, outcomes, and consumer response, no empirical study has yet examined the influence of inclusive leadership on green employee empowerment and sustainable supply chain performance in Bangladesh's product-based supply chains through the lens of psychological safety.

However, in the product-based segment of the Bangladesh export industry, the results of the sustainable supply chains are presented in a scoreline and are not consistent; some report merely incremental gains from business initiatives and practices, while a few of the largest exporters in the segment report gains (Helal et al., 2024a; Prangan et al., 2025a; Rabby & Rahman, 2023; Islam, 2025). This is partly due to the lack of enabling human and organizational context where the staff members are psychologically prepared to implement sustainable measures, or else the structural measures like implementation of the green procurement or tracking of materials digitally would not help in adopting sustainable practices (Bhutto et al., 2021a; Bag et al., 2020a). This will limit the ability of companies to meet the more demanding sustainability provisions of laws and regulation like the CSRD and of market actors and investors who care about sustainability. The gap is suggested to be bridged by inclusive leadership which can be demonstrated to create psychological conditions (safety, empowerment) for employees to translate leadership actions into sustainability actions (T. Li & Tang, 2022a; Mohase et al., 2025a). However, the impact of inclusive leadership in Bangladesh's product based supply chains and how has not been tested empirically yet.

1.2 Objective of the Study

1.2.1 Primary Objective

To examine the impact of inclusive leadership (IL) on sustainable supply chain performance (SSCP) as well as to test the mediating processes of psychological safety (PS) and green employee empowerment (GEE) in such a relationship among employees in supply chain functions within organizations.

1.2.2 Secondary Objectives

- To examine the direct effect of inclusive leadership (IL) on sustainable supply chain performance (SSCP).
- To assess the direct effect of inclusive leadership (IL) on psychological safety (PS) & green employee empowerment (GEE).
- To analyze the mediating role of green employee empowerment (GEE) & psychological safety (PS) in the relationship between inclusive leadership (IL) and sustainable supply chain performance (SSCP).

1.3 Rationale of the Study

There are three interrelated rationales that form the basis of this study. In theory, it addresses arguments that have been raised in the IL and supply chain sustainability literature that seek a better understanding of how IL behavior relates to sustainable organizational outcomes (Mamun & Rabby, 2025; Bhutto et al., 2021a). It further proposes that the logic of Social Exchange Theory, which posits a connection between fair and trust-based supervisory treatment with employees' discretionary and green effort is extended to evidence that supportive supervision in a green climate positively predicts employees' green effort (Rubel et al., 2021). The chain implies that: The ethical and trustful practice of supervisions has indirect impact on the SSCP through employee behaviors, e.g., discretionary green effort, reporting sub-optimal performance, adherence to SSCP procedures, etc., which all add up throughout the organization and yield measurable results. PS takes this concept further in a different direction: When PS facilitates employees in expressing concerns relevant to sustainability, raising environmental issues, and suggesting process improvements without fear of repercussions, the behaviors that result are the upstream inputs for which SSCP is achieved. Based on this logic, it is proposed that a sense of fairness from the leadership also has a positive implication on the employee's reciprocity in the form of pro-environmental action, and that two different theoretical mechanisms in between exist simultaneously instead of the one-mediator between two variables which is commonly used in previous research.

Contextually, Bangladesh's product-based value chains constitute an interesting and economically important, but rather under-researched sustainability context. This study, following the pattern of other studies conducted in Bangladesh, follows a cross-industry design which involves

representatives from various industries in the manufacturing sector in order to support generalization of the results within this industry (Rahman et al., 2023; Chowdhury et al., 2023). From a practical perspective, the pathway between IL and SSCP via PS and GEE provides supply chain managers, HR officers, and policy makers with evidence-based tools to design leadership development programmes, build psychologically safe work cultures and introduce GEE programmed to meet human-capital and sustainability objectives.

The present study makes a contribution in the following three aspects. First, it builds on the social exchange theory by showing that there are two psychological mechanisms at play in IL as opposed to one in most of the previous research that affected sustainable supply chain performance. Second, it offers the first empirical evidence on the effectiveness of this leadership-mediation pathway in the product-based supply chain sector in Bangladesh, which has not yet been explored in the sustainability leadership literature, but is a key and important sector. Third, it provides supply chain managers, HR officers and policy makers with evidence-based advice on how to plan leadership development and workplace-culture interventions to drive real gains in sustainability.

2. Review of Literature

2.1 Social Exchange Theory (SET)

This research builds on the principles of Social Exchange Theory (SET), which explains the structural relationships tied to IL, PS, GEE and sustainable supply chain performance. Contemporary systematic reviews of SET describe organizational exchange as a group of mutually dependent exchanges of a temporal nature, with the quality of the exchanges indicating some obligation to reciprocation that is not explicitly stated in any formal contract or agreement (Ahmad et al., 2023). To the leader–follower relationship, leader–member exchange scholarship applies this notion by proposing that when leaders invest in a socio-emotional exchange, they carve out a pathway for followers to feel called to respond in kind, with effort, loyalty, and sharing of information (Fein & Tziner, 2021).

IL is an important driver of these positive interactions in the context of this study. When leaders are inclusive, they offer their employees ample socio-emotional resources in the form of openness, accessibility and a genuine value for the individual's contribution (Mohase et al., 2025a). The

principles of SET imply that this injection of positive leadership behavior creates a strong sense of responsibility in the employees responding with behavior consistent with the company's strategic goals: namely, with environmental and operational sustainability expectations. It is a theoretical model to integrate psychological and motivational mechanisms into an integrated mechanism. Leveraging this principle, it is recognized that increased availability of leaders and ability to communicate lowers interpersonal risk, and thus the building of PS is a good exchange that works to benefit employees (Wietrak & Gifford, 2024a; Khan et al., 2020a). Similarly with decisions and recognitions of autonomy environmental projects, GEEis also an empowerment of the transfers of decisions and recognitions of autonomy (Llorente-Alonso et al., 2024a).

These are two types of reciprocity, complementary in form and function. The relational aspect of exchange is reflected in the PS: when people feel safe they return the positive treatment they receive from the leader and the organization with trust and openness. GEEis a reciprocal process that entails employees' autonomous and self-directed efforts in sustainability-related tasks in exchange for the same from their employers. IL's socio-emotional investment is expected to produce a relational state (PS) and a task-oriented state (green empowerment) at the same time, not instead of each other, as SET assumes that the expression of reciprocity is in the context of the specific resource that has been exchanged.

2.2 Inclusive Leadership

IL is a style of leadership which is relational and focuses on the words and actions of the leader that invites and welcomes the contribution of others (Mohase et al., 2025a). In recent organizational psychology, its three core dimensions of openness, accessibility and availability in leader-member relationships have been well established (T. Li & Tang, 2022a). Inclusive leaders strive to lessen the gap between levels in the hierarchy and foster a culture of collaboration with high rates of participation (T. Li & Tang, 2022a; Mohase et al., 2025a). When these relational qualities are implemented as part of environmental management frameworks, they can create processes of leadership that inspire and engage employees in considering environmental issues and supply chain optimization. Inclusive leaders establish a culture in which the voice of all employees is structurally heard, resulting in faster problem solving, more transparency across business functions and higher employee engagement in strategy development (Khan et al., 2020a).

2.3 Sustainable Supply Chain Performance

Sustainable supply chain performance is an operational structure with multiple layers that combines the traditional operational chain with an economic, social and environmental combination of the production chain. In the current business climate it is vital to create sustainable business processes integrating green human resource management, eco-efficient production and logistics chain coordination (Song et al., 2021). Now, supply chain management is more complicated than ever because of the tightening regulations, changing consumer green demands, and increasing environmental impacts of manufacturing and distribution.

However, with its focus on Social Exchange Theory, IL is a crucial ingredient for high performance sustainable supply chains. Leadership that is open and accessible opens up a climate in which complex supply chain issues are discussed openly (Khan et al., 2020a). This team spirit makes it easier for staff from various departments to feel comfortable in suggesting system-wide solutions, e.g. more sustainable logistics set-up, energy saving solutions and minimization of waste. As a result, supply chain professionals use every opportunity to prevent failures and enhance the eco-efficiency of the company when they are given clear institutional support and open access to leadership. There is recent evidence that identifying inefficiencies and environmental risks across supply chain functions is quicker when leaders are open and accessible, and that these behaviors result in gains in operational and environmental performance that are linked to IL (Rasheed et al., 2026).

So, the first hypothesis is formulated on the basis of these premises:

H1: IL is positively associated with SSCP.

2.4 Psychological Safety

PS is a shared belief that everyone in an organization or immediate work group is safe to take interpersonal risks (Wietrak & Gifford, 2024a). It reflects a workplace atmosphere in which people can be true to themselves and express genuine thoughts without fear of adverse consequences for their self-image, status, or career path. In the context of industrial work, defensive silence is a strategy used by workers to avoid being sanctioned or socially discredited for pointing out process

errors, structural failures or change proposals that would increase the inclusiveness of the job (Jolly & Lee, 2021).

The role of inclusive leader is a key building block in creating PS in teams. By freely giving of themselves they encourage their followers to make contributions as well, and to try again rather than being afraid of punishment (Mohase et al., 2025a). Inclusive leaders make clear that they welcome multiple viewpoints and that every person has value, which lowers the psychological barriers associated with organizational hierarchy (T. Li & Tang, 2022a). This paradigm of support leads to a strong sense of reduced vulnerability for the employee and, in turn, to a high level of PS within operations (Khan et al., 2020a). Inclusive leaders explicitly state their openness to diverse perspectives and that all individuals are valuable, reducing the psychological barriers of hierarchy in the organization. This paradigm of support leads to a strong sense of reduced vulnerability for the employee and, in turn, to a high level of PS within operations. Hence, the present hypothesis is formulated as follows:

H2: IL is positively associated with PS.

2.5 Green Employee Empowerment

Empowerment theory views empowerment as a psychological state, consisting of four cognitive dimensions related to the work tasks: meaning, competence, self-determination, and impact, which is the predominant model in more recent meta-analyses of empowerment in the workplace (Llorente-Alonso et al., 2024a). GEE refers to the psychological state of when the employee is motivated, autonomous and can complete tasks that are good for the environment and support the organization to become more sustainable.

IL is a key determinant of empowerment among green employees. Open communication with employees by inclusive leaders offers constructive and timely feedback to employees and supports employees' professional competence (Zafar et al., 2022a). The more freedom workers can have to decide what they do with waste, how they can green their processes, and how they can go sustainable, the more they sense the structural effects that this brings (Guha et al., 2024; Yue et al., 2022). IL's active inclusion and resourcing practices clearly promote this empowered mindset (Khan et al., 2020a). Based on these considerations, it is suggested that:

H3: IL is positively associated with GEE.

2.6 Mediating Role of Psychological Safety

The psychological processes that occur in employee teams need to be considered to fully grasp how the operational messages are transferred from relational leadership to operational outcomes in the supply chain. PS is a localized internal state and a functional catalyst which converts leadership support into sustainable supply chain performance (H4a). For large supply chain operations, achieving sustainability is an ongoing process that involves trying new things out, sharing risks across functions and understanding new green technologies. In a high-safety climate, employees do not suffer paralysis of fear that manifests among colleagues (Wietrak & Gifford, 2024a). This mental freedom enables them to proactively manage the disruptions in their supply chain, identify loss of resources, and share essential operational data (Mohase et al., 2025a).

Theoretically, in the field of Social Exchange Theory, PS is regarded as one of the most essential mediators between IL and sustainable supply chain performance (H4b). Enacting IL establishes the first social contract, reducing the hierarchy and making it clear to include voice (Rabby et al., 2025; T. Li & Tang, 2022b). The behavior fosters a group's PS (Mohase et al., 2025a). For the social exchange to complete its cycle, psychologically safe employees act with their sense of security, identify waste and inefficiencies in the system, and implement eco-efficient practices, without fear of blame. This secure and proactive space consistently minimizes operational errors at all levels and optimizes sustainable supply chain operations (Khan et al., 2020a). These result in the following hypotheses:

H4a: PS is positively associated with SSCP.

H4b: PS mediates the positive relationship between IL and SSCP.

2.7 Mediating Role of Green Employee Empowerment

GEE is an important medium that transfers IL into organizational sustainability outcomes (H5a). Empowered employees engage more effectively, employ a proactive approach to the company's goals, and are more committed to the organization (Llorente-Alonso et al., 2024a). They have a significant level of task impact and autonomy and are not constantly overlooked by a bureaucracy

to bring about eco-friendly changes. They actively engage in the company's efforts to reduce waste, conserve natural resources and optimize the company's local supply chains, directly improving the company's ecological performance.

The second important relation between IL and sustainable supply chain success is GEE(H5b). Inclusive leaders provide significant relational resources, recognize individual differences and authority, and grant decision-making authority; all of which directly spur employee green empowerment (Rabby et al., 2024; Zafar et al., 2022). As employees gain more psychological empowerment, they are more motivated to fulfill the leader's sustainability expectations with increased autonomy. They apply their expertise to further improve logistics, clean-tech process design, and supplier compliance with environmental regulations (Rabby et al., 2025; Zhai et al., 2020). This individual alignment of energy directly impacts the objective level indicators of the supply chain's sustainability, without the need for external intervention (Khan et al., 2020a). Accordingly, the final hypotheses are presented:

H5a: GEE is positively associated with SSCP.

H5b: GEE mediates the positive relationship between IL and SSCP.

2.8 Conceptual Framework

The conceptual framework presented in this study is integrated which indicates the direct relationship and the indirect relationship between the variables. The model assumes that IL is the independent variable, with a direct effect on Sustainable Supply Chain Performance as well as an indirect effect via PS and Green Employee Empowerment. Together, grounded in Social Exchange Theory, these dual mediation pathways map how inclusive relational behaviors are converted into organizational supply chain sustainability.

* Note: H_{4b} and H_{5b} represent the indirect mediation paths via PS and GEE respectively.

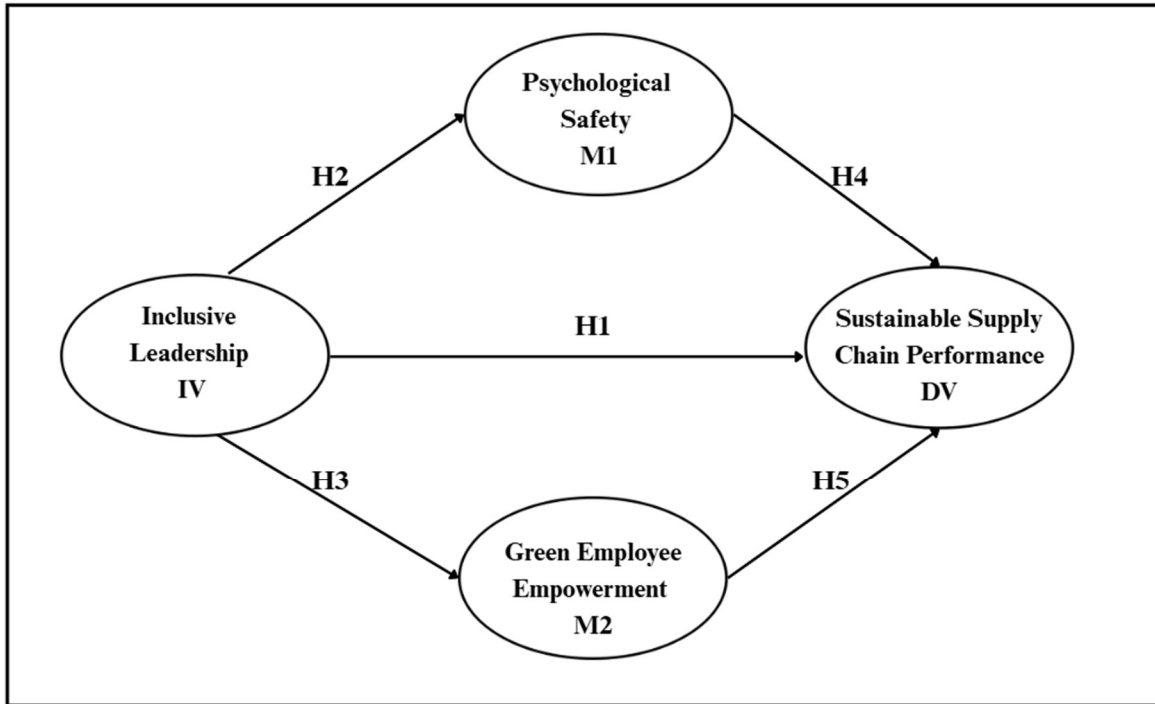


Figure 2.1: Research model

3. Methodology

3.1 Research Design

The type of research used in this study is quantitative using positivist approach. The primary data were collected using a cross-sectional survey method which involves data collection of employees at the same time from various corporate organizations in Bangladesh. This design aligns with the research conducted on the managerial behavior, organizational psychology, and supply chain management at the same time (Hair et al., 2019).

The deductive approach was employed in this research where theoretical propositions were taken from the literature on IL and PS, and then from the literature on green supply chains, to identify the hypotheses, and subsequently tested based on empirical data. This is the method that can be used when a theory is well known and is being used in a new application. As a cross-sectional survey strategy was used, a single-point-in-time horizon was used. The data collection and analysis

methods used in this study are Primary quantitative data and Partial Least Squares Structural Equation Modeling (PLS-SEM) method using SmartPLS 4.

3.2 Population and Sampling

The target participants are professionals and employees of corporate and multinational organizations in Bangladesh, working under full-time employment basis, in various fields related to Supply chain, Operations, Management and others. Theoretically, IL and PS are seen as organizational-wide issues, not ones confined to a single function within the organization, such as supply chain, so respondents from Operations and general Management roles were included alongside supply chain specialists, as they regularly interact with supply chain decision making (production scheduling, vendor coordination, resource allocation) and thus are well placed to comment on IL within their organization and on PS within the organization and their part of the organization. These are the individuals who are directly exposed to IL (IL) and PS (PS) and green supply chain responsibilities (GEE and SSCP). Moreover, purposive (judgmental) sampling technique was used and snowball sampling to ensure respondents in various organizations. The possible lack of a comprehensive sampling frame of corporate employees in Bangladesh rendered this non-probability method necessary, and it is in line with the other PLS-SEM based studies carried out in emerging market contexts (Sarstedt et al., 2022).

3.3 Sample Size

The final data set comprises 300 responses from a sample of 34 Bangladeshi and multinational organisations in the consumer goods, retail, manufacturing and logistics sectors. This number of samples is sufficient for PLS-SEM according to the recommended minimum number of samples. Following the 10-times rule suggested by (Hair et al., 2019), the minimum required sample size is determined by multiplying ten by the largest number of structural paths directed at any endogenous construct. The final sample of 300 respondents substantially exceeds this threshold, providing sufficient statistical power and supporting the strength of the bootstrapping analysis used for hypothesis testing.

3.4 Data Collection

Survey Instrument

Structured self-administered online questionnaire was used in gathering data, the questionnaire was created by Google Forms. This questionnaire was designed to include two sections: (1) demographic and organizational profile questions and (2) Likert scale items that assessed the four key constructs. The survey was sent out electronically to the respondents working in different organizations in Bangladesh such as Unilever Bangladesh Ltd, PRAN-RFL Group, Daraz Bangladesh Ltd, Nestlé, Renata PLC, Marico Bangladesh etc.

Measures

In this research, construct items were rated on a 5-point Likert type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

IL (IL). The four items used to measure IL were adapted from the IL Questionnaire validated by (A. Li, 2021) that was developed and psychometric tested at Columbia University as a theory-based refinement of previous measures including (Carmeli et al., 2010). Items are answered by individual respondents; however, each item refers to how the manager treated the work unit rather than him/her. This design enables the aggregation of scores to the work unit level as per the instrument's intended purpose of representing the experience of IL as a property of the work unit, not just an individual experience. Four items were chosen for the present study as being potentially positioned between PS and green empowerment, as the two dimensions of fairness and communication are core to the conceptual model of the present study. The items for fairness, equality, and respect (IL1, IL2, IL3) had excellent internal consistency ($\alpha = .94$) and the item for bias reduction and inclusion (IL4) had high reliability ($\alpha = .88$). One of the sample items is "My manager minimizes bias on marginalized group members in the work unit."

PS (PS). This present study adapted the five-item scale developed by (Khan et al., 2020b) to measure PS. A sample item is "It is safe to take risk in this organisation". The Cronbach's alpha (α) reliability of PS was 0.80 in the study.

GEE(GEE). Four items were adapted from the Green Human Resource Management and Employee Empowerment scale developed by (Hanaysha, 2016), out of the five items in the original

scale. A sample item is "I have the authority to make necessary green decisions for my job." The Cronbach's alpha (α) reliability of GEE was 0.771 in the study.

Sustainable supply chain performance (SSCP). Four items were adapted from the eight-item scale developed by (Bag et al., 2020) to measure SSCP. A sample item is " Our organization has proper control on supply chain costs." The Cronbach's alpha (α) reliability of SSCP was 0.996 in the study.

1. Results

4.1 Respondents' profile

Table 4.1 presents the demographic characteristics of the respondents of the study. Among the respondents, 27.7% is female, while 72.3% is male. Regarding the level of education, 56.0% of the respondents have completed graduation, and 29.3% of them have completed post-graduation. Moreover, the respondents represented a range of experience levels in supply chain management. The largest proportion had 1–3 years of experience (32.7%), followed by 4–6 years (29.7%), while 19.7% had less than 1 year of experience. Respondents with 7–10 years and more than 10 years of experience accounted for 14.3% and 3.7%, respectively, indicating that the sample included both early-career and highly experienced supply chain professionals. Therefore, the demographic characteristics of the respondents suffice their adequacy of them to provide reliable information of the said issues.

Statistical Characteristics	Category	Frequency	Valid Percentage
Gender	Female	83.0	27.7%
	Male	217.0	72.3%
Age group	Below 25	48.00	16.0%
	25-34	110.00	36.7%
	35-44	93.00	31.0%
	45-54	43.00	14.3%
	55 and above	6.00	2.0%
Education	Bachelor's Degree	168.00	56.0%
	PG Diploma	36.00	12.0%
	Master's Degree	88.00	29.3%
	PhD	8.00	2.7%
Experience	Less than 1 year	59.0	19.7%

1-3 years	98.0	32.7%
4-6 years	89.0	29.7%
7-10 years	43.0	14.3%
More than 10 years	11.0	3.7%

Table 4.1 Demographic Characteristics of the Respondents

4.2 Measurement Model Assessment

4.2.1 Factor loading, Reliability and Convergent Validity analysis:

Factor loading represents the extent to which each of the items in the correlation matrix correlate with the given principal component. The standardized loadings (or simple correlation) are checked to assess individual item reliability. The study in measuring the impact of IL on sustainable supply chain performance uses 16 items in measuring the latent constructs. Table 4.2 represents the factor loading with the loading score sufficient to measure the constructs.

The measurement model (outer model) was tested before testing the relations among the constructs in the structural model. The reliability of all indicators was analyzed by looking at the outer loadings. As shown in Table 4.2, most of the items had outer loadings greater than the recommended level of 0.70 except (PS2) for the lower outer loading and that was excluded from the model, indicating that each item is a valid and reliable measure of the construct they are measuring.

Cronbach's alpha (CA), Composite reliability (CR), and Average Variance Extracted (AVE) were used to evaluate the construct reliability and convergent validity. While CA is a commonly employed criterion to assess the reliability of variables, the PLS procedure utilizes a more recent criterion known as hybrid reliability. In this criterion, CR has been considered. All constructs GEE, IL, PS and SSCP had Cronbach's alpha and composite reliability values that exceeded the standard value of 0.70, suggesting good internal consistency.

The next criterion, AVE is crucial to measure the extent of variance that latent variables assess from its items designed to measure them proportionate to the discrepancy that occurred for measurement errors. AVE values for IL (0.668), GEE (0.698), PS (0.617) and SSCP (0.650) are more than the minimum criterion of 0.50, indicating satisfactory convergent validity across all constructs. Based on the introduced criteria, the proposed model is considered acceptable at the standard level.

Contracts	Items	Outer Loading	CA	CR	AVE
IL	IL1	0.827	0.835	0.839	0.668
	IL2	0.803			
	IL3	0.819			
	IL4	0.821			
Green Employee Empowerment	GEE1	0.821	0.856	0.862	0.698
	GEE2	0.864			
	GEE3	0.793			
	GEE4	0.862			
PS	PS1	0.815	0.793	0.812	0.617
	PS3	0.692			
	PS4	0.777			
	PS5	0.850			
Sustainable Supply Chain Performance	SSCP1	0.796	0.821	0.821	0.650
	SSCP2	0.799			
	SSCP3	0.815			
	SSCP4	0.815			

Table 4.2: Item Loading, Convergent Validity, and Reliability

4.2.2 Discriminant Validity

Having measured convergent validity, discriminant validity has been preceded to assess the extent to which the construct is distinct from the others. Two methods were used for the evaluation of discriminant validity, such as Fornell-Larcker criterion and Heterotrait-Monotrait Ratio (HTMT). The Fornell-Larcker criterion states that the square root of the AVE for each construct should be greater than the correlations with all other constructs. Table 4.3 shows that diagonal values are greater than the off-diagonal values in the given columns and rows. Therefore, the discriminant validity analysis on the model concludes that the latent variables are discrete and satisfactory.

Constructs	GEE	IL	PS	SSCP
GEE	0.836			
IL	0.540	0.817		
PS	0.521	0.639	0.785	
SSCP	0.510	0.403	0.438	0.806

Table 4.3: Fornell and Larcker Criterion

The HTMT test has a more rigorous measure of discriminant validity. This test offers a direct assessment of discriminant validity by evaluating the strength of correlations between constructs relative to the variance captured by each construct. It is less prone to bias because it does not rely on distributional assumptions, resulting in more accurate estimates. The HTMT ratios for all pairs of constructs are shown in Table 4.4. All HTMT values are below the 0.85 conservative threshold, which means that each construct is empirically different from the others. The results overall showed good reliability, convergent and discriminant validity and are suitable for further structural analysis.

Constructs	GEE	IL	PS	SSCP
GEE				
IL	0.631			
PS	0.626	0.773		
SSCP	0.604	0.476	0.527	

Table 4.4: HTMT Test

4.2.3 Explanatory power of the model

Table 4.5 presents the results of the explanatory power of the current model. The coefficient of determination (R^2) was used to assess the explanatory power of the structural model. The independent variable, IL (IL) can explain 29.1% variance in GEE(GEE), 40.8% variance in PS (PS) and 30.4% variance in Sustainable Supply Chain Performance (SSCP).

The R^2 score is sufficient as Hair et al. (2019) suggested that the R^2 values of 0.75, 0.50, and 0.25 can be referred to as substantial, moderate, and weak predictive power. Overall, the results of the current model indicate that the model possesses acceptable explanatory power, with PS demonstrating moderate explanatory power, while GEE and SSCP exhibit weak to moderate explanatory power.

Constructs	R-square	R-square adjusted
GEE	0.291	0.289
PS	0.408	0.406
SSCP	0.304	0.297

Table 4.5: Results of R Square Test

4.3 Structural Model

4.3.1: Results of Direct Path Analysis

The hypothesis testing was performed with a bootstrapping procedure using 300 resampling to identify the magnitude of effect on the independent variable on the dependent variables. Table 4.6 presents results of the all the direct path with their coefficient value (β) along with t-statistics and p-value of the individual path. The weight of the p-value determines whether the hypotheses proposed by the author will be accepted or not.

The results show that there is no significant direct effect of IL on SSCP (H1: IL $\rightarrow$ SSCP, $\beta = 0.081$, $p = 0.227$) which is $p > 0.05$, so the hypothesis of the direct effect of IL on SSCP is not supported. While this may sound like a problem with the model, it is not. When combined with the important indirect pathways reported in Section 4.3.2, it highlights that IL does not link to SSCP through any direct pathway, but only through PS and green employee empowerment. A theoretical and contextual description of why IL has an indirect impact on SSCP is provided in the Discussion. However, IL positively affects PS (H2: IL $\rightarrow$ PS, $\beta=0.639$ and $p= 0.000$) as the observation shows significance at $p<0.05$. Similarly, IL has a positive impact on GEE (H3: IL $\rightarrow$ GEE, $\beta=0.540$, $p= 0.000$) at level $p<0.05$. PS has a positive impact on SSCP (H_{4a}: PS $\rightarrow$ SSCP, $\beta=0.196$ and $p= 0.007$) at level $p<0.05$. GEE has a significant positive impact on SSCP (H_{5a}: GEE $\rightarrow$ SSCP, $\beta=0.363$ and $p= 0.000$) at level $p<0.05$.

Path	Beta	SD	T statistics	P values	Decision
IL -> SSCP	0.081	0.067	1.207	0.227	Not Supported
IL -> PS	0.639	0.034	18.901	0.000	Supported
IL -> GEE	0.540	0.041	13.327	0.000	Supported
PS -> SSCP	0.196	0.073	2.689	0.007	Supported
GEE -> SSCP	0.363	0.071	5.135	0.000	Supported

Table 4.6: Results of Direct Path Analysis

4.3.2: Results of Indirect Path Analysis

In addition to the direct path analysis, the study examines whether PS and GEE act as catalyst between predictor and predicted variables. The results of H_{4b} (IL $\rightarrow$ PS $\rightarrow$ SSCP, $\beta=0.125$,

$t=0.2.667$ and $p= 0.008$) and H_{5b} ($IL \rightarrow GEE \rightarrow SSCP$, $\beta=0.196$, $t=0.4.672$ and $p= 0.000$) establish significant mediation effect between antecedents and outcome variables.

Path	Beta	T statistics	2.5%	97.5%	P values	Decision
IL -> PS -> SSCP	0.125	2.667	0.036	0.220	0.008	Full mediation
IL -> GEE -> SSCP	0.196	4.672	0.117	0.283	0.000	Full mediation

Table 4.7: The result of the structural model assessment for Specific Indirect Effects

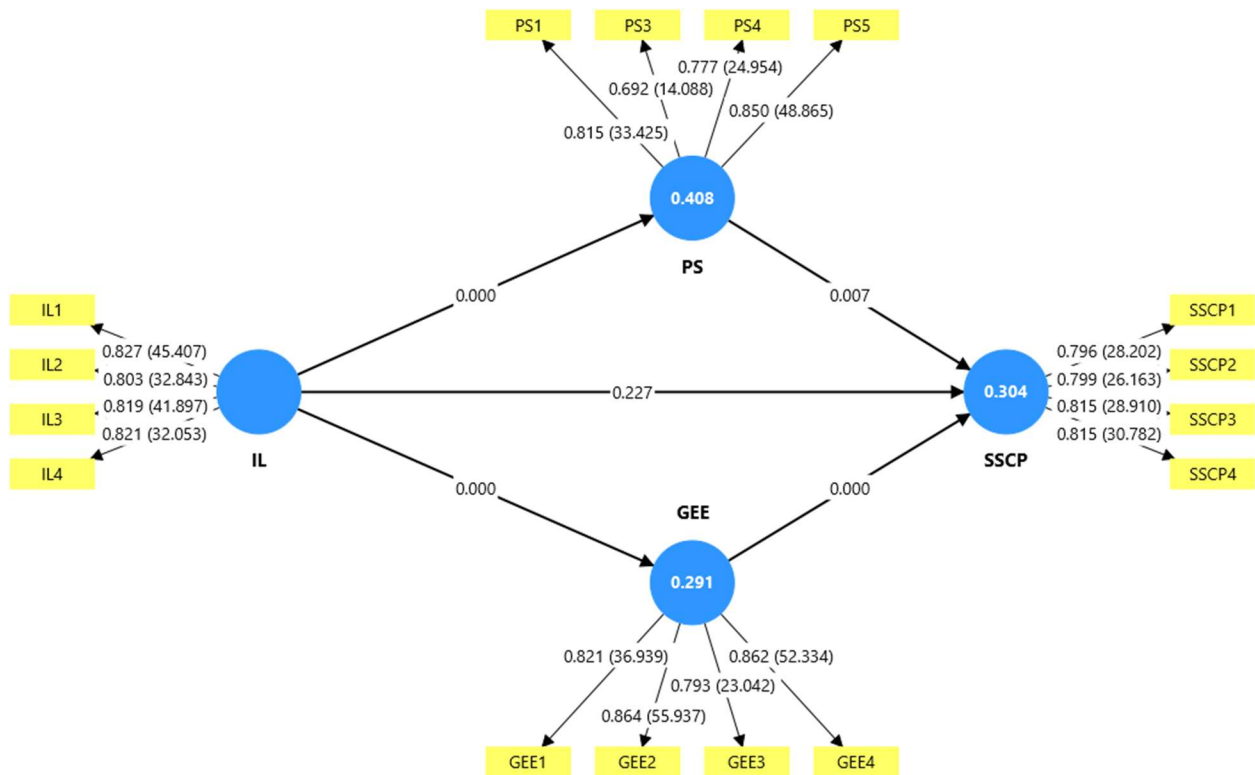


Figure 4.1: Research Model Results

1. Discussion

The findings of this study indicate that IL influences sustainable supply chain performance not directly, but entirely through PS and green employee empowerment, suggesting a fully mediated relationship. This implies that IL alone is not sufficient to drive sustainability outcomes unless it fosters an environment where employees feel psychologically safe and empowered to act on green initiatives.

IL does not improve sustainable supply chain outcomes on its own, simply because leaders are open, accessible, and participatory where its effect works entirely through the psychological states it builds in employees. IL therefore sets the stage, while PS and GEE are what carry leadership behavior into observable sustainability performance. This answers the study's central question by showing how IL matters for SSCP matters through building relational trust (PS) and a sense of ownership over green tasks (GEE).

This also intensifies the relevance of Social Exchange Theory (SET) in this context. SET assumes inclusive treatment obliges employees to repay leaders with effort toward organizational goals. But since IL has no direct link to SSCP, this reciprocity is clearly not general or automatic; it depends on the specific psychological states inclusive treatment creates. Sustainability does not occur automatically on the part of employees as a condition of exchange; it only occurs when employees feel safe and empowered by IL to engage in green tasks. This points to a boundary condition on SET in sustainability contexts: the exchange process seems to require a psychological shift in between, rather than a direct behavioral response.

The strong IL–PS and IL–GEE relationships identified here are supportive of previous studies identifying the inherent link between IL and PS and empowerment related states across different types of organizations (Khan et al., 2020; T. Li & Tang, 2022; Zafar et al., 2022). These paths are comparable and in the case of PS somewhat higher than effect sizes reported in similar leadership-safety studies (Wietrak & Gifford, 2024).

However, the non-significant direct IL–SSCP path contrasts with studies that find leadership constructs with direct effects on either operational outcomes or sustainability constructs (Bag et al., 2020). On significant grounds, this differentiation might be warranted when considering leadership style as a relational input as opposed to vendor-relationship management (Rahman et al., 2023b) or green procurement practices (Helal et al., 2024), which would have observable and structurally embedded relationships with supply chain outcomes. Therefore, the current findings justify the belief that, in Bangladesh, human and relational processes, rather than leadership behavior, mediate sustainability performance. This further supports the argument that any measure, including digital tracking or green procurement, is unlikely to succeed in achieving long-term benefits without a psychologically enabling organizational environment (Bag et al., 2020; Bhutto et al., 2021).

This difference is most evident compared to (Rasheed et al., 2026) who explored the impact of IL on SSCP, as well as through the mediating role of employee green creativity and green psychological climate in 2,105 supply chain professionals in U.S. manufacturing. They found that IL had a significant direct effect on SSCP, as well as significant indirect effects on green creativity and green psychological climate, in which green psychological climate played a role as a mediator. The present study reveals that the effect of IL on SSCP is fully mediated when PS and GEE are introduced, as their model does not find such a direct pathway in the model except when both are mediated by the mediator, IL.

There may be two contextual differences that explain this difference. First, (Rasheed et al., 2026) surveyed professionals in large, technologically advanced manufacturing companies in the United States, where the formal green systems and empowerment structures are already in place, and where the leadership behaviours thus can be more readily translated into observable outcomes. The present sample comes from the context of product manufacturing in Bangladesh, in which such systems are relatively underdeveloped and outcomes of sustainability depend more on psychological states that management induce in individual workers than on management behaviour's direct impact on outcomes. Second, the mediators (green creativity, green psychological climate) are conceptually more similar to climate and creative constructs than to PS and could thus allow for a direct path between IL and SSCP to remain significant even after accounting for the mediation. Interpreted this way, the divergence is not a contradiction, but rather a sign that the IL–SSCP relationship is boundary-conditioned by organisational and national contextual factors: direct if the organisational system is already mature in terms of green systems, fully mediated if the practice of sustainability hinges on the readiness of the individual.

There is potential to develop this contextual argument further. Recent studies (Rabbani et al., 2024) have consistently described the organizational culture in Bangladesh as high in hierarchy and power distance, which implies that the subordinates are expected to follow the instructions of managers without questioning. A leader who is inclusive, open, accessible, and communicates fairly does not have much direct behavioural influence on outcomes in the supply chain, in such an environment: autonomous decision-making is already driven by other factors, such as organisational hierarchy and standard operating procedures, for most aspects of day-to-day life. This aligns with recent findings that power distance influences the link between IL and employee

voice and behaviour, as the direct impact of IL on behaviour is dampened while the more subjective and subjective felt-safety-based pathways remain intact (Guo et al., 2022). Instead, IL can change the way employees feel about being safe and empowered to use discretion in those structures. In highly power-distance manufacturing contexts, like Bangladesh, this implies that IL can promote sustainability outcomes only if it is able to impact the felt safety and autonomy of employees, but not the outcome itself.

2. Theoretical Implications

This research makes notable contributions to literature. Firstly, this was one of the first studies to examine the role of IL on the performance of sustainable supply chain using two mediators simultaneously rather than considering one mediator at a time, namely PS and green employee empowerment. Most previous studies have focused on the effect of one mediator variable on another, e.g. voice behavior on innovation and PS, or empowerment on pro-environmental behavior (T. Li & Tang, 2022c; Llorente-Alonso et al., 2024b; Mohase et al., 2025b). When tested together, they are not synonymous, which means they each bring in a slightly different facet of the relationship between IL and sustainability outcomes—not each of them taking the place of the other.

Second, the mediation result of the entire process indicates that SET does not mediate the relationship between leader behaviors and supply chain sustainability, but rather acts as a psychological state of the employee. According to this institutional context, the relationship between leader behaviors and employee psychological states and their influence on supply chain sustainability can be explained by SET. IL behaviours alone are not enough to drive performance improvements—they are only effective to the degree that they create first a sense of PS and felt empowerment. This indicates that reciprocity in this context does not happen automatically based on leader's behaviour, but on the state of the cognitive and motivational processes triggered by a leader (Chowdhury et al., 2023b; Rubel et al., 2021b). A similar model was tested in a more institutionalized setting and the direct effect of IL on sustainable supply chain performance was found to be significant, implying that this conditionality is not the norm for reciprocity in the context of SET (Rasheed et al., 2026). The institutional maturity is therefore a theoretically meaningful moderator for future research that can be directly tested.

Third, this study looks at sustainability leadership in a setting that has received little attention to the Bangladesh's product-based, cross-industry corporate sector, as opposed to the garment sector where most Bangladeshi studies have focused (Abir et al., 2025; Prangan et al., 2025).

3. Practical Implications

This study also has direct implications for supply chain professionals and managers beyond advice on HR in general. The main message is that the need for IL needs to be translated into employee empowerment and green employee PS through specific supply chain decisions and in order to secure the transition of sustainable supply chain performance from a leadership style.

First, it is important for SC managers to make openness and fairness a normal part of supply chain decisions, rather than a general supply chain management style. This may involve alternating the leadership of supplier negotiation meetings or sustainability audit meetings, and making sure that procurement, logistics and warehouse personnel of all levels have a clear view of who is making sourcing and sustainability decisions that impact their areas of responsibility.

Second, organisations should create formal procedures for sustainable issues raised by supply chain people (such as delayed vendor audit, a discrepancy in emissions data, or a shortcut taken under deadline pressure), where there is no risk of taking the blame. A team level standing sustainability risk log or protected reporting times within supplier review cycles can help ensure that if there is a concern raised it does not slow down the process.

Third, authorities on focused sustainability actions like green procurement selection, reducing waste at the production floor, or redesigning packaging and logistics should be decentralized to front line and middle managers, instead of centralized to the senior level management team. The most effective way to create IL is to ensure that those who, by their job functions, have the most knowledge of the processes involved in sourcing and operations are given the authority to take action to reduce waste, emissions or inefficiencies.

Lastly, these practices need to be integrated into the current organisational systems; they should not be established as separate projects. Organisations may have a PS question during supplier audits (Did employees report a supplier compliance gap without consequences) as well as a leadership and empowerment question in sustainability disclosures (Does the organisation have procedures to document leadership and empowerment practices alongside procurement and

technology investments?). Otherwise, structural investments in green procurement or digital tracking systems have only partial and non-uniform impacts, which is already happening in the garment and agro-based sector in Bangladesh.

4. Limitations and Future Research Directions

Despite its theoretical and practical implications, this study has certain limitations that should be acknowledged.

One limitation is the cross-sectional design, which does not allow conclusions of causation. Even though it is theoretically valid, reverse or reciprocal linkages should not be ruled out, including the perception that the leaders of more successful sustainable supply chains are more inclusive. Future studies should use a longitudinal study design to assess changes in PS, green employee empowerment, and sustainable supply chain performance at 2-3 time points following the introduction of IL interventions. This would enable the mediation logic proposed here to be tested to assess actual Temporal Precedence instead of making inferences from a cross-sectional data.

Second, purposive and snowball sampling methods were employed as there is no complete sampling frame of organizational employees in Bangladesh with whose results the conclusions cannot be extrapolated to the wider population of non-sampled organizations. The sample was also predominantly male (72.3%) and mid-career, which may restrict generalisability to other age groups and genders. Future studies should employ probability-based sampling frames if available, or use an expanded and more balanced sample of industries and seniority to see if the fully mediated pattern found in this report will persist regarding an outsized majority-male, mid-career respondent profile.

Third, including the use of validated measures, common method biases are still a possibility as all variables were measured at one time. Future research can seek to reduce this by using multiple measures of employee perceptions of IL and PS, such as by combining employee-reported measures with supervisor assessed measures of employee empowerment or with objective data like documented waste reduction outcomes or supplier audit results.

Fourth, PS item PS2 had a low outer loading (0.440) and it was excluded, indicating a need for adaptation for the scale to be used in Bangladeshi samples. More research should be conducted by re-validating the PS2 in Bangladesh using qualitative methods like cognitive interviews or focus

groups with the staff of the supply chain, to see if the poor performance of the PS2 is translation problems, a misunderstanding of the functionality of rejection because of being different or the true lack of any relationship between PS2 and hierarchical, high power distance workplace environment.

Fifth, this study was done with a subset of the 40 items within (A. Li, 2021) validated scale, which were chosen to reflect factors related to PS and to green employee empowerment. This operationalisation only captures the fairness and reduction of bias elements, whilst not all-inclusive of the full multidimensional definition of IL, therefore limiting findings and generalizability in IL as a whole. Future studies should use the full ILQ to confirm the mediating pattern found in the present study when using a more comprehensive assessment of the construct.

Finally, this study examined mediation only at the organisational level in corporate organisations of Bangladesh. Future research is encouraged to explore this dual mediation in service sector organisations, small and medium enterprises, and other South Asian economies, and to examine boundary conditions.

5. Conclusion

Implementing IL in product-based supply chain organizations in Bangladesh can definitely have a substantial impact on sustainable supply chain performance, but it is indirect. Instead, it functions by the way that mental states are developed within employees. Inclusive leaders can create a culture of openness, accessibility, and participative communication that helps professionals across their supply chain feel more comfortable about green tasks and feel a sense of ownership over them. These are the two leadership behaviors rather than the behavior itself that help drive improved sustainable supply chain outcomes. Although IL positively contributes to sustainable supply chain performance through these pathways, its direct effect on performance outcomes is limited. Staff attitudes towards safety to speak up about risk and error and stewardship of the environment are still key factors in performance. However, these psychological conditions are essential if significant sustainability improvements are to be achieved by leadership style. Overall, this study indicates a positive example for decision-making that IL is useful to organizations, but merely the expansion and inclusion of others are inadequate unless they can be intentionally transformed into safe and empowering workplaces from where sustainability can be achieved.

Creating IL practices within a larger organizational strategy is essential for achieving optimal organizational outcomes and is not sufficiently about leadership style alone.

References

- Abir, A. S., Islam, H. S., Munira, S., Probal, K. M. A., & Rahman, A. (2025). *Green Supply Chain Management and Its Impact on Consumer Purchase Decisions: Evidence from Bangladesh*. <https://doi.org/10.5281/ZENODO.17285069>
- Adu Sarfo, P., Zhang, J., Nyantakyi, G., Lassey, F. A., Bruce, E., & Amankwah, O. (2024). Influence of Green Human Resource Management on firm's environmental performance: GEEas a mediating factor. *PLOS ONE*, 19(4), e0293957. <https://doi.org/10.1371/journal.pone.0293957>
- Agyabeng-Mensah, Y., Ahenkorah, E., Afum, E., Nana Agyemang, A., Agnikpe, C., & Rogers, F. (2020). Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance. *Supply Chain Management: An International Journal*, 25(5), 585–599. <https://doi.org/10.1108/SCM-11-2019-0405>
- Ahmad, R., Nawaz, M. R., Ishaq, M. I., Khan, M. M., & Ashraf, H. A. (2023a). Social exchange theory: Systematic review and future directions. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1015921>
- Ahmad, R., Nawaz, M. R., Ishaq, M. I., Khan, M. M., & Ashraf, H. A. (2023b). Social exchange theory: Systematic review and future directions. *Frontiers in Psychology*, 13, 1015921. <https://doi.org/10.3389/fpsyg.2022.1015921>
- Bag, S., Wood, L. C., Xu, L., Dhamija, P., & Kayikci, Y. (2020). Big data analytics as an operational excellence approach to enhance sustainable supply chain performance. *Resources, Conservation and Recycling*, 153, 104559. <https://doi.org/10.1016/j.resconrec.2019.104559>
- Bhutto, T. A., Farooq, R., Talwar, S., Awan, U., & Dhir, A. (2021). Green IL and green creativity in the tourism and hospitality sector: Serial mediation of green psychological climate and work engagement. *Journal of Sustainable Tourism*, 29(10), 1716–1737. <https://doi.org/10.1080/09669582.2020.1867864>
- Chowdhury, T. I., Nahian, C. Md., Ahmed, R., Rafi, S. R. K., & Hasan, N. (2023). *A Sustainable Supply Chain Revolution to Improve Service and Cost Reduction: An Empirical Study using fsQCA*. <https://doi.org/10.5281/ZENODO.8409728>
- Ernst & Young. (2022). *How sustainable supply chains are driving business transformation* [Report]. Ernst & Young (EY). https://www.ey.com/en_gl/insights/supply-chain/supply-chain-sustainability-2022
- Fein, E. C., & Tziner, A. (2021). Editorial: The Future of the Leader-Member Exchange Theory. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.736710>

- Guha, S., Rabby, S. M. A. H., Chowdhury, S. R., & Julee, S. A. (2025). Enhancing employee innovation capabilities through high-involvement HRM: mediating role of knowledge sharing and transformational leadership. *Future Business Journal*, 11(1), 59.
- Guo, Y., Zhu, Y., & Zhang, L. (2022). IL, leader identification and employee voice behavior: The moderating role of power distance. *Current Psychology*, 41(3), 1301–1310.
- Hanaysha, J. (2016). Testing the Effects of Employee Empowerment, Teamwork, and Employee Training on Employee Productivity in Higher Education Sector. *International Journal of Learning and Development*, 6(1), 164. <https://doi.org/10.5296/ijld.v6i1.9200>
- Helal, F., Uzzal, M. A., & Nisha, A. S. (2024). *Do Sustainable Supply Chain Practices Really Matter to the Environment? An Empirical Investigation in the Context of Bangladesh*. <https://doi.org/10.5281/ZENODO.13865972>
- Iqbal, Q., Ahmad, N. H., Nasim, A., & Khan, S. A. R. (2020). A moderated-mediation analysis of psychological empowerment: Sustainable leadership and sustainable performance. *Journal of Cleaner Production*, 262, 121429. <https://doi.org/10.1016/j.jclepro.2020.121429>
- Islam, S. (2025). *Supply chain sustainability integration: The case of textile and ready-made garment (RMG) industry of Bangladesh* [Doctoral thesis, University of Southampton]. University of Southampton ePrints. <http://eprints.soton.ac.uk/id/eprint/498674>
- Jolly, P. M., & Lee, L. (2021). Silence is not Golden: Motivating Employee Voice through IL. *Journal of Hospitality & Tourism Research*, 45(6), 1092–1113. <https://doi.org/10.1177/1096348020963699>
- Khan, J., Jaafar, M., Javed, B., Mubarak, N., & Saudagar, T. (2020). Does IL affect project success? The mediating role of perceived psychological empowerment and PS. *International Journal of Managing Projects in Business*, 13(5), 1077–1096. <https://doi.org/10.1108/IJMPB-10-2019-0267>
- Li, A. (n.d.). *IL Questionnaire: The Design and Validation of a Theory-based Instrument*.
- Li, T., & Tang, N. (2022a). IL and Innovative Performance: A Multi-Level Mediation Model of PS. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.934831>
- Li, T., & Tang, N. (2022b). IL and Innovative Performance: A Multi-Level Mediation Model of PS. *Frontiers in Psychology*, 13, 934831. <https://doi.org/10.3389/fpsyg.2022.934831>
- Llorente-Alonso, M., García-Ael, C., & Topa, G. (2024). A meta-analysis of psychological empowerment: Antecedents, organizational outcomes, and moderating variables. *Current Psychology*, 43(2), 1759–1784. <https://doi.org/10.1007/s12144-023-04369-8>
- Mamun, L. M. L., SK, S. M. A. H. R., & Rabby, M. A. H. (2025). The Impact of Digital Workplace Surveillance on Employee Productivity and Job Satisfaction: Exploring the Mediating Role of Trust. *Journal of Innovation in Business Studies*, 5(1).
- Mohase, K., Donald, F., & Israel, N. (2025a). IL, PS, and employee voice in remote and hybrid work employees. *South African Journal of Psychology*, 55(3), 432–446. <https://doi.org/10.1177/00812463251365484>

- Mohase, K., Donald, F., & Israel, N. (2025b). IL, PS, and employee voice in remote and hybrid work employees. *South African Journal of Psychology*, 55(3), 432–446. <https://doi.org/10.1177/00812463251365484>
- Prangan, T. H., Ahmed, Md. R., Islam, A.-A., Islam, Md. A., & Mim, J. S. (2025). *Evaluating the Impact of Sustainable Supply Chain Management (SSCM) Practices on Business Performance Among Agro-Based SMEs in Bangladesh: Mediating Role of FinTech Usability* Tanjeem Hasan Prangan¹, Md. Rumel Ahmed², Al-Amin Islam³,. <https://doi.org/10.5281/ZENODO.17285206>
- Rabbani, G. M. N., Fuad, M. N., Haque, T. A., & Rahman, S. (2024). Exploring the influence of Bangladeshi organizational culture on internal communication practices. *Cultural Communication and Socialization Journal*, 5(1), 1–6.
- Rabby, M. A., & Rahman, M. (2023). Consumer Observation on Retail Digitalization: A Study on Retail Sector of Bangladesh. *International Journal of Research Publication and Reviews*, 4, 776-787.
- Rabby, S. K., Hassan, M. A., & Mamun, L. (2024). The influence of virtual HRM practices on organizational culture in the information technology (IT) sector of Bangladesh. *World Journal of Economics and Business Research*, 2(2), 16-27.
- Rabby, S. M. A. H. R., Tazin, F., Tasnim, J., & Safi, M. S. B. (2025). Interrogating the Dynamics between Human Resource Management Practices and Perceived Gender Diversity: An Empirical Sectoral Analysis of Bangladesh's Business Process Outsourcing Industry. *Interdisciplinary International Journal of Advances in Social Sciences, Arts and Humanities (IJASSAH)*, 2(1), 82-106.
- Rabby, S. M. A. H., Al Jubair, A., Nizhum, T. Z., & Haque, M. A. (2025). The impact of AI-driven HR technologies on performance management and employee development: A study of the telecommunication sector in Bangladesh. *Social Science and Management*, 2(1), 25-41.
- Rahman, M., Islam, T. W., Himel, A. T. M. T., & Islam, T. R. (2023). *Impact of Strategic Vendor Management to Improve Supply Chain Performance*. <https://doi.org/10.5281/ZENODO.10018571>
- Rasheed, R., Rashid, A., Ngah, A. H., & Rahi, S. (2026). Fostering sustainable supply chain performance through IL and a green psychological climate with a mediation of employee green creativity. *Knowledge and Process Management*, 1–19. <https://doi.org/10.1002/kpm.70045>
- Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2021). Green human resource management and supervisor pro-environmental behavior: The role of green work climate perceptions. *Journal of Cleaner Production*, 313, 127669. <https://doi.org/10.1016/j.jclepro.2021.127669>
- Song, W., Yu, H., & Xu, H. (2021). Effects of green human resource management and managerial environmental concern on green innovation. *European Journal of Innovation Management*, 24(3), 951–967. <https://doi.org/10.1108/EJIM-11-2019-0315>
- Sugiarto, A., & Huruta, A. D. (2023). Antecedents of green creativity: The mediating role of employee green commitment and employee job satisfaction. *Cogent Business & Management*, 10(2), 2222491. <https://doi.org/10.1080/23311975.2023.2222491>

- Wietrak, E., & Gifford, J. (2024). *Trust and PS: An evidence review. Practice summary and recommendations*. Chartered Institute of Personnel and Development. <https://www.cipd.org/en/knowledge/evidence-reviews/trust-psychological-safety/>
- Yue, T., Gao, C., Chen, F., Zhang, L., & Li, M. (2022). Can empowering leadership promote employees' pro-environmental behavior? Empirical analysis based on psychological distance. *Frontiers in Psychology, 13*, 774561. <https://doi.org/10.3389/fpsyg.2022.774561>
- Zafar, H., Ho, J. A., Cheah, J.-H., & Mohamed, R. (2022). Catalyzing voluntary pro-environmental behavior in the textile industry: Environmentally specific servant leadership, psychological empowerment and organizational identity. *Journal of Cleaner Production, 378*, 134366. <https://doi.org/10.1016/j.jclepro.2022.134366>
- Zhai, Q., Wang, S., & Weadon, H. (2020). Thriving at work as a mediator of the relationship between workplace support and life satisfaction. *Journal of Management & Organization, 26*(2), 168–184. <https://doi.org/10.1017/jmo.2017.62>