
Impact of Sustainable Supply Chain Practices on Corporate Firm Performance in the Sri Lankan Apparel Sector Engaged in International Business

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A B S T R A C T

Sustainable Supply Chain Practices (SSCPs) refer to the integration of environmental, social, and economic sustainability considerations into supply chain activities, including sourcing, production, supplier relationships, and resource use. As Sri Lanka's apparel industry is closely connected to international markets, sustainability has become strategically important for maintaining competitiveness and meeting international buyer expectations. Recent evidence indicates that sustainable supply chain management can improve firm, operational, economic, environmental, and social performance, although the strength of these relationships varies across contexts (Wang et al., 2023; Jum'a et al., 2024). In the textile and apparel context, environmental risks and green performance have received greater attention than integrated social and economic sustainability (Saeidi et al., 2022). Sri Lankan evidence has also examined supplier sustainability risk management strategies and supply chain performance, but this literature has not jointly tested the environmental, social, and economic dimensions of SSCP against corporate firm performance in export-oriented apparel companies (Silva et al., 2024). Therefore, this study examines how environmental, social, and economic sustainable supply chain practices influence the performance of export-oriented apparel companies in Sri Lanka. The study adopted a positivist research philosophy and a quantitative research design. It was selected because the study tests deductively derived hypotheses using observable, measurable questionnaire data and statistical analysis, while the quantitative design specifies the systematic procedure used to collect and analyse numerical data (Saunders et al., 2023). Convenience sampling technique was applied and data were collected using a structured questionnaire administered through both online and printed formats. A total of 158 valid responses were obtained from employees, managers, and executives of export-oriented apparel companies in Sri Lanka. Descriptive statistics, reliability and validity tests, Pearson correlation analysis, and multiple regression analysis were conducted using IBM SPSS. The three sustainability dimensions were positively and significantly correlated with firm performance: environmental practices ($r = 0.706, p < 0.01$), social practices ($r = 0.828, p < 0.01$), and economic practices ($r = 0.848, p < 0.01$). Regression analysis showed that economic sustainable practices were the strongest significant predictor of

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firm performance ($\beta = 0.510, p < 0.001$), followed by social sustainable practices ($\beta = 0.289, p = 0.002$), while environmental practices were positive but not statistically significant ($\beta = 0.115, p = 0.073$). The regression model explained 75.3% of the variance in corporate firm performance ($R^2 = 0.753$). The findings highlight the importance of integrating economic and social sustainability into supply chain strategies while continuing to strengthen environmental practices.

Keywords: Sustainable Supply Chain Practices, Corporate Firm Performance, Economic Sustainability, Environmental Sustainability, Social Sustainability.

1. Introduction and Research Problem

In recent years, Sustainable Supply Chain Management (SSCM) has become a prominent concept in business because firms increasingly face environmental, social, regulatory, and economic pressures across their supply networks. Sustainable Supply Chain Practices (SSCPs) can be defined as the integration of environmental, social, and economic sustainability considerations into supply chain activities and relationships. The Triple Bottom Line perspective provides a useful theoretical foundation for considering these three dimensions together (Carter, 2008). Recent research reinforces the importance of viewing SSCM as a multidimensional approach: a meta-analysis of 158 empirical studies found that SSCM is positively associated with operational, economic, environmental, social, and innovation performance (Wang et al., 2023), while a recent review highlights growing stakeholder pressure to integrate environmental, social, and governance considerations into supply-chain strategy (Truant et al., 2024). The apparel sector is particularly exposed to sustainability concerns because of resource use, environmental impacts, textile waste, labour intensity, and complex supplier relationships. A systematic review of textile and apparel supply chains found that environmental risks and green performance dominate the literature, while social and economic dimensions are less integrated (Saeidi et al., 2022). More recent empirical evidence also indicates that sustainable supply chain practices can contribute to organisational performance in emerging-market manufacturing contexts (Shebeshe & Sharma, 2024; Türkeş et al., 2024). In Sri Lanka, prior studies have examined supply-chain resilience, green supply chain management, sustainability practices, and supplier sustainability risk management in apparel and manufacturing organisations (Abeysekara, 2019; Piumal.H, 2022; Yulashika.P, 2023; Silva et al., 2024). However, the recent Sri Lankan apparel evidence on supplier sustainability risk management focuses on selected risk-management strategies and supply chain performance rather than jointly testing the environmental, social, and economic dimensions of SSCPs against corporate firm performance (Silva et al., 2024). Therefore, the specific research gap addressed by this study is the limited empirical evidence on the separate and combined relationships of environmental, social, and economic SSCPs with corporate firm performance in Sri Lanka's export-oriented apparel sector. Accordingly, this study analyses the effect of these three dimensions on the performance of corporate firms engaged in international business.

The following are the objectives of the study:

1. To analyse the effect of sustainable approaches in the environment on the performance of the corporate firm.
2. To examine how social sustainable practices affect the firm performance of companies.
3. To measure the impact of sustainable economic practices on the firm performance of companies.

4. To evaluate the general effect of sustainable supply chain management practices on the firm performance of companies.

Based on the Triple Bottom Line perspective and previous empirical evidence (Carter, 2008; Govindan, 2015), the following hypotheses are developed:

H1: Environmentally friendly practices have a positive effect on the performance of the organisation.

H2: Company's firm performance is positively affected by social sustainable practices.

H3: The use of economic sustainable practices has a positive effect on corporate firm performance.

H4: The Sustainable supply chain practices have a significant positive impact on the overall performance of the company.

2. Research Methodology

The study adopted a positivist research philosophy and a quantitative research design. The positivist philosophy concerns the study's underlying assumptions about knowledge and evidence, whereas the quantitative research design concerns how numerical data are systematically collected and analysed. Positivism was selected because the study seeks to examine an observable and measurable relationship between sustainable supply chain practices and corporate firm performance, formulates hypotheses deductively, uses structured measurement, and evaluates the hypotheses through statistical tests while maintaining researcher detachment (Saunders et al., 2023). The quantitative design was selected because the study uses numerical responses from a structured five-point Likert-scale questionnaire and applies descriptive statistics, Pearson correlations, and multiple regression to estimate relationships among the variables.

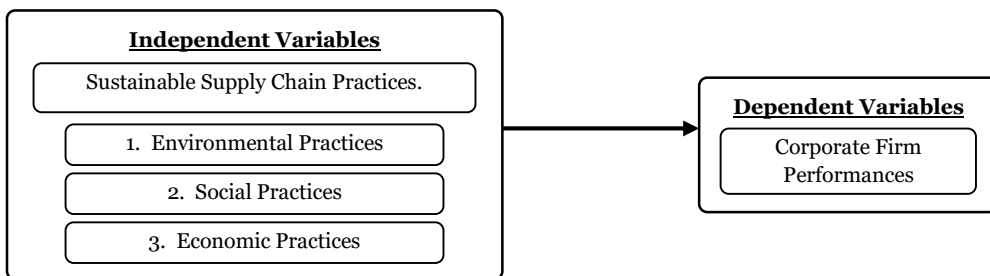


Figure 1: Conceptual Framework

The conceptual framework consisted of three independent variables which are environmental practices, social practices, and economic practices and one dependent variable, corporate firm performance. The target population comprised employees, managers, and executives of export-oriented apparel companies in Sri Lanka. Data were collected using a structured questionnaire containing demographic questions and measurement statements rated on a five-point Likert scale from strongly disagree to strongly agree. The Non probability sampling technique, which is convenience sampling was applied and the questionnaire was administered through both online and printed formats. The study obtained 158 valid responses from employees working at two selected organisations, namely MAS Holdings and Brandix. Reliability was assessed

using Cronbach's alpha, while construct validity was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. IBM SPSS was used for data analysis. Descriptive statistics, Pearson correlation analysis, and multiple regression analysis were used to test the hypotheses.

3. Results

The reliability analysis showed good internal consistency, with Cronbach's Alpha values ranging from 0.933 to 0.939 across the constructs. The KMO values ranged from 0.880 to 0.894, indicating adequate sampling adequacy, and Bartlett's Test of Sphericity was significant ($p < 0.001$). Descriptive analysis showed a high level of sustainability implementation. Social sustainable practices recorded the highest mean ($M = 4.2662$), followed by environmental practices ($M = 4.1989$) and economic practices ($M = 4.1860$). Corporate firm performance also recorded a high mean ($M = 4.1971$). Pearson correlation analysis showed that all three sustainability dimensions were positively and significantly associated with firm performance: environmental practices ($r = 0.706$, $p < 0.01$), social practices ($r = 0.828$, $p < 0.01$), and economic practices ($r = 0.848$, $p < 0.01$). Separately, multiple regression analysis showed that the overall model was statistically significant ($F = 156.634$, $p < 0.001$) and explained 75.3% of the variance in firm performance ($R^2 = 0.753$). Economic sustainable practices were the strongest significant predictor of firm performance ($\beta = 0.510$, $p < 0.001$), followed by social sustainable practices ($\beta = 0.289$, $p = 0.002$). Environmental practices had a positive but statistically non-significant regression coefficient ($\beta = 0.115$, $p = 0.073$).

Table 1: Reliability and Validity Statistics

Statistic	Reported result	Interpretation
Cronbach's Alpha	0.933–0.939	Good internal consistency
KMO	0.880–0.894	Adequate sampling adequacy
Bartlett's Test of Sphericity	$p < 0.001$	Statistically significant

Table 2: Descriptive Statistics

Variable	Mean
Environmental Practices	4.1989
Social Practices	4.2662
Economic Practices	4.1860
Corporate Firm Performance	4.1971

Table 3: Pearson Correlation Results

Variable	Pearson r with Firm Performance	Significance
Environmental Practices	0.706	$p < 0.01$
Social Practices	0.828	$p < 0.01$
Economic Practices	0.848	$p < 0.01$

Table 4: Multiple Regression Coefficients and Significance

Predictor	Standardized β	p-value	Significance
Environmental Practices	0.115	0.073	Not significant
Social Practices	0.289	0.002	Significant
Economic Practices	0.510	< 0.001	Significant

Note: Overall regression model: $F = 156.634$, $p < 0.001$; $R^2 = 0.753$

4. Conclusions, Implications and Limitations

The results indicate that sustainable supply chain management is an important factor associated with the performance of export-oriented apparel companies in Sri Lanka. The correlation analysis shows significant positive bivariate relationships between environmental, social, and economic practices and firm performance. However, the multiple regression analysis shows that economic sustainable practices are the strongest significant predictor, followed by social sustainable practices, whereas environmental practices are positive but not statistically significant when the three dimensions are considered simultaneously. These findings suggest that sustainability should be incorporated into strategic supply chain decision-making rather than treated merely as a compliance obligation. Economic practices such as cost efficiency, supplier collaboration, innovation, lean practices, and circular approaches may provide more immediate business benefits, while social practices can strengthen employee welfare, ethical practices, stakeholder trust, and corporate reputation. Environmental practices remain important, although their performance benefits may require longer-term investment. The study contributes to the Sri Lankan apparel-sector literature by examining environmental, social, and economic sustainable supply chain practices together and distinguishing their correlation and regression effects on corporate firm performance. The findings provide practical implications for apparel firms and industry stakeholders seeking to balance competitiveness with sustainability. The study is limited to the Sri Lankan apparel industry, uses self-reported cross-sectional data, and therefore may not be generalisable to other sectors or countries. Future studies could adopt longitudinal designs, incorporate objective performance measures, and examine mediating or moderating factors such as supply-chain resilience and dependence on foreign markets.

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