



Impact of Green Supply Chain Management Practices on Triple Bottom Line Performance and Moderating Effect of Institutional Pressure

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ABSTRACT

Parallel to the rapid population growth, manufacturing as one of the supply chain practices should be increased to fulfill their requirements. Due to the advancement of industry and technology, the needs of human beings are constantly changing and the process of supplying goods and services becomes more complex. Reasoning competition and profit maximization, the manufacturing sector creates severe environmental problems and social problems as well. Under this scenario, conducting research has begun on how manufacturing should take place while conserving the environment. Accordingly, previous literature confirms that green supply chain management is the appropriate solution for overcoming environmental issues.

Although several research studies have been conducted to examine this relationship, moderating effects of various pressures on this relationship have not been investigated within the Sri Lankan context. Therefore, this research aims to identify the impact of green supply chain management practices on firms' triple-bottom-line performance and also examine the moderating effects of regulatory pressure on this relationship. A hundred large-scale manufacturing companies were selected as the sample through the purposive sampling method. Moreover, a questionnaire survey was employed for the data collection, and data was analyzed through confirmatory factor analysis using PLS-SEM software. Findings indicate that significant positive relationship between green supply chain management practices and triple bottom line performance i.e., environmental, economic, and social. Moreover, findings accentuate that regulation pressure moderates the relationship of green supply chain management practices only with environmental and social performances. This explored knowledge will encourage practitioners to implement green practices within their supply chains and it enables the country to achieve sustainable goals.

Keywords: Green-Supply-Chain-Management, Institutional Pressure, Triple-Bottom-Line-Performance

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INTRODUCTION

Day-to-day human needs are satisfied by consuming various goods and services. For this consumption, supplying goods and delivering services on behalf of humans in the world is a heavy responsibility. The supply chain encompasses many parties such as suppliers, manufacturers, distributors, wholesalers, retailers, and customers. These parties involve directly or indirectly in the manufacturing process and distributing products from upstream to downstream. In recent decades, it can be seen that the demand for products has increased due to globalization (Bendul et al., 2017). The manufacturing sector has to play the main role in the process of satisfying these rising human needs and wants. Since the majority of manufacturing companies operate as for-profit organizations, they are in a position to earn profits, and further, without profit earnings, they cannot survive in the market. Therefore, business organizations continuously look for new strategies to maximize their profits. This competition creates a lot of environmental problems and further, the manufacturing sector can be identified as the major contributor to these environmental issues. Paulraj et al. (2017) confirm when companies make effort to maximize profits, it is often blamed for the creation of many environmental and social problems. In this situation, degradation of the ecosystem is taken place, and it is created by environmental issues i.e., continuous depletion of natural resources, ground contamination, global warming, damaging ozone layer, and decline in biological diversity (Hashmi & Akram, 2021). Therefore, environmental destruction created by industrialization (especially in the manufacturing sector) has become one of the major current issues faced by humans in the world (Luthra et al., 2016).

With the advent of the Industrial Revolution, people were able to move forward into the 21st century. Technology advances, rapidly science advances, and then the production era unfold. With all this came another effect, that's industrial pollution. Previously, industries were small factories, and only smoke was emitted as the main pollutant. Therefore, as the number of factories was little and only a certain number of hours were operated per day, the level of pollution did not increase significantly. However, as these factories became mature industrial and manufacturing units, the problem of industrial pollution began to become more severe.

In the Sri Lankan context also, many environmental problems are being created by the manufacturing industry and a considerable amount of manufacturing organizations have adopted GSCM practices within their supply chains (Jayarathna & Lasantha, 2018; Priyashani & Gunarathne, 2021). One of the most observable trends in countries such as Sri Lanka where the open market economy is dominant in all the areas in socio-cultural spheres is that the management of private sectors attempts to maximize profit in their businesses without caring much its environmental conditions. This means that they pay little attention or sometimes no attention to the environmental factors that are crucial for sustainable development in any country. Therefore, this situation indicates that the industrial sector is increasingly jeopardizing the environment and its natural resources. As an example, a famous beverage company's oil spill into the river Kelani can be cited as one of the major environmental problems caused by a manufacturing company. Due to this, the Environmental Protection License (EPL) issued to the company was temporarily revoked by the Central Environmental Authority of Sri Lanka (Pradeep, 2015).

Thus, this study investigates the impact of Green Supply Chain Management (GSCM) practices on firms' Triple Bottom Line (TBL) performance with special reference to manufacturing companies in Sri Lanka. Although several studies have been conducted to identify the impact of GSCM practices on firm performance, no studies have been carried out to identify the moderating effects of regulatory pressure on this relationship. Therefore, in addition to investigating the impact of GSCM practices on TBL performance, the moderating effect of regulatory pressure on the relationship of GSCM practices with TBL performance will be examined in this study. Accordingly, the following issues will be addressed through this study.

1. What is the impact of GSCM practices on firms' TBL performance?
2. What is the moderating effect of regulatory pressure on the relationship of GSCM practices with TBL performance?

The necessity of modern manufacturing technology and strengthening of government regulations are strongly felt today to overcome these environmental problems which were specially created by the manufacturing sector. Cousins et al. (2019) emphasize that as a new technology, GSCM practices make a tremendous effort to integrate environmental issues in the

context of supply chain management (SCM). GSCM creeps into the entire supply chain i.e., from suppliers to customers through manufacturers, distributors, warehouses, wholesalers, and retailers, and also enters reverse logistics in a closed-loop supply chain (Abdallah, & Al-Ghwayeen, 2019). Further, many stakeholders continuously pressure companies to adopt GSCM practices.

The prime driver for the rapid development of SCM has been economic sustainability, based on the premise that an integrated and efficient supply chain helps to minimize monetary risks and increase profit (Fawcett et al., 2008). SCM from the very beginning was addressing only economic sustainability but with the rising trends of environmental and social issues, nowadays, the companies are aiming towards the TBL performance. This means that SCM is broadening its scope, and at the same time evolving in GSCM, Responsible Supply Chain Management (RSCM), or furthermore in Sustainable Supply Chain Management (SSCM). Hence, “the objective of supply chain sustainability is to create, protect, and grow long-term environmental, social, and economic value for all stakeholders involved in bringing products and services to markets” (Szegedi & Ph, 2012). Therefore, exploring new knowledge through conducting research on SSCM and its practices is very important to achieve the prosperity of all three pillars of people, planet, and profit. Thus, the current study aims to identify the impact of GSCM practices as one of the SSCM dimensions on TBL performance. Moreover, it examines whether the regulations enacted by the government for protecting the environment are moderated on the relationship between GSCM practices and TBL performance will be examined.

However, in a literature review carried out by Liu et al. (2017) on SSCM using 101 journal articles from 2006 to 2015 there were only 17 articles that considered all three dimensions of TBL. Moreover, on those 17 articles, no research has been carried out related to Sri Lanka. Although Jayarathna and Lasantha (2018) conducted their research on the impact of GSCM practices on firm performance related to manufacturing companies in Sri Lanka, they only considered the firms’ financial performance. Moreover, Sapukotanage et al. (2018) investigated the impact of SSCM practices on sustainable performance relevant to Sri Lankan manufacturing industries; however, they had taken different indicators of SSCM practices into account. Therefore, the present study is conducted to examine the impact of GSCM practices on firms’ TBL performance and further examines the moderating effects of regulatory

pressure on this relationship. Consequently, this study is the very first study that examines the moderating effect of regulatory pressure on the relationship between GSCM practices and firms' TBL performance related to the Sri Lankan manufacturing industry. This significance enables academics, practitioners, and students to identify new findings in the field of GSCM. In addition, the current research study surely will give a novel contribution to the body of knowledge in the field of GSCM.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In this study, GSCM practices are taken into account as the environmental dimension of SSCM practices. Therefore, previous studies that have been carried out to investigate the impact of GSCM practices on firms' performance and studies conducted to identify institutional pressure as the moderating variable on the relationship of GSCM practices with TBL performance were reviewed to identify a research gap and to develop the hypotheses.

Impact of GSCM Practices on TBL Performance

Zhu et al. (2010) pointed out that even at the initial stage of GSCM implementation; large Japanese companies have made significant improvements in environmental and financial performance. Moreover, Green et al. (2012) emphasized that generally, the implementation of GSCM practices by manufacturing companies leads to improved environmental performance and economic performance, which, in turn, positively impacts operational performance. As a result of that operational performance enhances organizational performance. Further, Ar (2012) stated that green product innovation significantly positively affects both firm performance and competitive capability. Lai and Wong (2012) add to the knowledge that Green Logistic Management (GLM) positively affects both environmental and operational performance.

Jayarathna and Lasantha (2018) carried out a research study on the impact of GSCM Practices on financial performance related to manufacturing companies in Sri Lanka and the results confirmed that GSCM practices (green purchasing and investment recovery) significantly influence financial performance. Besides, Zailani et al. (2012) validated that GSCM practices i.e., environmental-friendly purchase and sustainable packaging have a

positive effect on sustainable performance, especially on economic and social performance. Using the mobile industry in India as a subject, Luthra et al. (2014) empirically testified the impact of a green supply chain on firms' TBL and operational performance as positive.

In addition, a Malaysian experience related to GSCM practices and firm performance was presented by Eltayeb et al. (2011). Results confirmed that green supply chain initiatives have a positive effect on the outcomes and showed that eco-design has a significant positive effect on the four types of outcomes i.e., environmental outcomes, economic outcomes, cost reductions, and intangible outcomes. Moreover, Eltayeb and Zailani (2009) and Eltayeb et al. (2011) disclosed that green supply chain initiatives can play a significant role in achieving the TBL of social, environmental, and economic benefits and, therefore, contributing to the sustainable development of society.

Therefore, considering the reviewed literature, the following hypotheses were developed:

H1: GSCM practices and economic performance have a positive relationship

H2: GSCM practices and environmental performance have a positive relationship

H3: GSCM practices and social performance have a positive relationship

Institutional Pressure

Chinese manufacturers have experienced increasing environmental pressure to implement GSCM practices and especially production managers need to be aware of these additional pressures (Zhu & Sarkis, 2007). The existence of market (normative) and regulatory (coercive) pressures will influence organizations to have better environmental performance, especially when these pressures cause the adoption of eco-design and green purchasing practices (Zhu & Sarkis, 2007). Ar (2012) found that the managerial environmental concern (as pressure) moderates the relationship between green product innovation and firm performance. The most adopted green initiatives in Malaysia are eco-design and green purchasing, followed by reverse logistics and the major reasons to adopt these green initiatives are regulations, customer pressures, expected business benefits, and social

responsibility (Eltayeb et al., 2010).

Abd Rahman et al. (2014) investigated GSCM among 112 manufacturing companies of ISO14001-certified in Malaysia. Specifically, the objectives of this study were to examine the influence of various institutional pressures i.e., regulation, marketing, competition, management, cost on the level of green practices, and the interrelationships between drivers, practices, and performance. Results indicated that manufacturers in Malaysia experience high external pressures such as regulatory and marketing/customer pressures. Moreover, in Malaysia, Adebambo et al. (2014) used environmental regulations as the moderating variable for the relationship between sustainable environmental practices and firm performance.

Vanalle et al. (2017) identified that institutional pressures influence the supply chain to pursue GSCM practices. They identified and used central governmental environmental regulation, regional environmental regulations, environmental regulations from clients' countries, export, sales to foreign customers, the establishment of the company's green image, supplier's advances in developing environmentally friendly goods, environmental partnership with suppliers, supplier's advances in developing environmentally friendly packages, enterprise's environmental mission, products potentially in conflict with laws, the cost for disposal of hazardous materials, cost of environmentally friendly goods, and cost of environmentally friendly packaging as the institutional pressures.

Although, various institutional pressures have been examined by previous researchers, and since many of them have confirmed that regulatory pressure act as the major pressure factor, only the regulation pressure i.e., government environmental regulations and clients' countries' environmental regulations were used as the moderating variable of this study. Many environmental rules and regulations are being operated in Sri Lanka, thus, what extent of influence given by these environmental regulations to manufacturing companies for adopting GSCM practices can be identified through this study. Hence, only the regulation pressure as a moderating variable was employed to identify the moderating effects of the regulation pressure on the relationship of GSCM practices with firms' TBL performance in the manufacturing sector in Sri Lanka.

According to the deep literature review, we identified that moderating effect of regulation pressure on the relationship between GSCM practices and TBL performance has not been investigated related to manufacturing companies in Sri Lanka. Therefore, this empirical gap was filled through the current study.

“Central government environmental regulations”, and “clients’ countries’ environmental regulations” (Vanalle et al., 2017; Zhu et al., 2005) were considered as regulations to investigate the moderating effect on the relationship of GSCM practices with firms’ TBL performance. Therefore, the researchers hypothesized:

H4: Regulatory pressure moderates the relationship of GSCM practices with firm performance.

Hence, the following conceptual research model was developed considering the variables and hypotheses developed in the study.

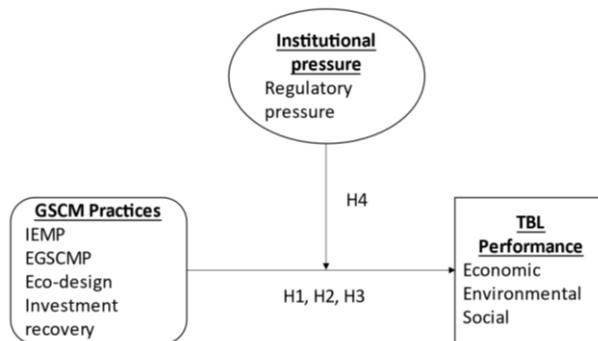


Figure 1: Conceptual Research Model

METHODOLOGY

The current research study is conducted on the topic of “Impact of GSCM Practices on Firms’ TBL Performance and the moderating effect of institutional pressure.” Accordingly, large-scale manufacturing companies in Sri Lanka have been selected as the population of the study. The current research study formulated hypotheses in accordance with the reviewed literature related to particular variables in the conceptual research model. Therefore, those hypotheses were tested to obtain the results. Data analyzing

software was used for the purpose of testing the hypotheses. Moreover, mathematical equations, and calculations with numerical value tables, and expressions were used for the discussion of results and to derive conclusions.

Research studies that possess the above-mentioned characteristics have been categorized under the positivism research paradigm (Collis & Hussey, 2009; Gall et al., 2003). Since this study generates numerical data and these data are analyzed to obtain results and to make conclusions, it shows all the characteristics of quantitative types of research.

The survey method as a data collection method dominates quantitative research studies (Kraemer, 1991; Roxas & Lindsay, 2012). Since the study was conducted as a quantitative study, the survey method was employed for the data collection. This study mainly depended on primary data because secondary data was not sufficient to investigate the focused area of the current study i.e., the impact of GSCM practices on TBL performance.

Furthermore, a seven-point Likert-Scale structured e-mail questionnaire was used for the purpose of collecting data. This questionnaire was sent to the selected officials i.e., the supply chain manager, production manager, operations manager, and logistic manager in sample companies. These questions were answered by one of the above-mentioned managers using a seven-point Likert-type scale (1 – Strongly disagree to 7 – Strongly agree).

Henceforth, the current research study can be categorized as a survey study which comes under the quantitative research approach. Moreover, previous studies which investigated the impact of GSCM practices on firm performance related to manufacturing companies have mainly used a quantitative approach, and data collection has been conducted through a questionnaire survey (Emamisaleh et al., 2018; Gawankar et al., 2017; Hamdy et al., 2018; Hasan, 2013; Koh et al., 2007; Priyashani et al., 2021; Zhu et al., 2005).

When the scale is larger, the implementation of GSCM practices is relatively higher due to stakeholder involvement and regulatory influence as well. Further, in the Sri Lankan context, no previous studies have been conducted on this research topic considering only large-scale manufacturing organizations. The Department of Census and Statistics (DCS) in Sri Lanka

defines a large enterprise as an establishment with more than 199 persons. Therefore, the manufacturing companies which have 200 and more employees i.e., large-scale manufacturing enterprises were used as the theoretical population of this study.

Thus, the population of this study is 721 large-scale manufacturing companies which are located in various places (including free trade zones) in the country. Furthermore, this amount includes 37 public (listed in CSE) manufacturing companies. Consequently, the sample of the current study encompasses 100 large-scale manufacturing companies and 12 of them are public limited (PLC) companies. In addition, the sample selection of this study highly depends on the pre-targeted sample companies. Therefore, the purposive sampling method was employed for the sample selection in this study. The composition of the industry of the sample is presented in Table 1 and the composition of the respondents is shown in Table 2.

Table 1: Composition of Industry of the Sample

Industry	Number of respondents	Percentage of the sample
Apparel	52	52%
Food & beverages	13	13%
Electric & electronic	10	10%
Rubber & plastic	10	10%
Chemical & lubricants	07	07%
Ceramics & Cement	05	05%
Pharmaceutical products	03	03%
Total	100	100%

Table 2: Composition of the Respondents

Field of management	Number of respondents	Percentage
Supply chain management	46	46%
Operations management	22	22%
Production management	20	20%
Logistics management	12	12%

DATA ANALYSIS AND RESULTS

Results

Since this study generates numerical data and this data is analyzed to obtain results to make conclusions, it shows all the characteristics of quantitative types of research. Therefore, a suitable statistical method should be employed for analyzing the data. Partial Least Square Structural Equation Modeling (PLS-SEM) is an appropriate statistical technique for testing hypotheses especially for estimating the linear relationship between variables

(Hair et al., 2017). Therefore, PLS-SEM was selected as the most appropriate method to analyze this numerical data which was obtained from the seven-point Likert scale questionnaire survey.

Smart PLS software was employed for the data analysis process. This technique is the most appropriate analyzing technique when the sample size is relatively small (Hair et al., 2014). According to Hat et al. (2012), validity and reliability should be confirmed first to use the PLS-SEM to analyze the data and obtain results. Therefore, the current study assesses the reliability of the first-order constructs by using indicator reliability and internal consistency reliability, and the validity of indicators (reflective) is evaluated by employing convergent validity and discriminant validity (Hair et al., 2014).

Table 3 shows the evaluation of four exogenous latent variables related to first-order construct and their indicators. Further, 22 indicators were used under these four latent variables in the first-order construct of GSCM practices. Since the entire factor loadings of 22 indicators are shown above the minimum standard value of 0.7, indicator reliability is satisfied.

Table 3: Indicator Reliability of First-order Constructs

Construct and Indicator	Internal Consistency Reliability	
	Factor Loading	T statistics
01 <i>Eco-Design</i>		
Design of products for reduced consumption of material/energy	0.932	44.784
Design of products for reuse, recycle, recovery of material, component parts	0.917	61.149
Design of products to avoid or reduce the use of hazardous products and/or their manufacturing process	0.897	28.348
02 <i>External green supply chain management practices</i>		
Providing design specifications to suppliers that include environmental requirements for the purchased item	0.941	55.796
Cooperation with suppliers for environmental objectives	0.917	38.719
Environmental audit for suppliers' internal management	0.907	40.996
Suppliers' ISO14000 certification	0.894	32.286
Second-tier supplier environmentally friendly practice evaluation	0.892	30.381
Cooperation with customers for eco-design	0.948	79.072
Cooperation with customers for cleaner production	0.901	36.623
Cooperation with customers for green packaging	0.906	36.268
03 <i>Internal environmental management practices</i>		
Commitment of GSCM from senior managers	0.923	64.271
Support for GSCM from mid-level managers	0.892	29.199
Cross-functional cooperation for environmental improvements	0.943	59.757
Contribution of employees to GSCM practices	0.932	49.308
Total quality environmental management	0.951	76.020
Environmental compliance and auditing programs	0.910	41.944
ISO 14001 certification	0.888	40.165
Environmental Management Systems exist	0.931	66.317
04 <i>Investment recovery</i>		
Investment recovery (sale) of excess inventories/materials	0.849	23.570
Sale of scrap and used materials	0.879	22.052
Sale of excess capital equipment	0.830	21.287

Internal consistency reliability has also been confirmed because of values of both Cronbach's alpha and composite reliability in Table 4 is above the threshold of 0.7. Further, the convergent validity of the first-order constructs was evaluated by using Average Variance Extracted (AVE) values. All the AVE values obtained by indicators are above the minimum standard level of 0.5, thus, convergent validity has been satisfied by all the indicators of first-order constructs.

Table 4: Internal Consistency Reliability and Convergent Validity of GSCM Practices and TBL Performance

	Cronbach's Alpha	Composite Reliability	AVE (Average variance of Extracted)
Eco-Design	0.903	0.939	0.838
External GSCM practices	0.972	0.976	0.834
Internal environmental Mgt practices	0.975	0.978	0.849
Investment recovery	0.812	0.889	0.727
Economic performance	0.931	0.951	0.829
Environmental performance	0.983	0.986	0.923
Social performance	0.959	0.968	0.858

In accordance with Fornell and Larcker (1981), the square root of AVE in each latent variable of the study was employed to observe the discriminant validity. Further, Fornell and Larcker (1981) emphasize that these AVE values should be greater than the other correlation values among the particular latent variables. Table 5 presents the discriminant validity of the first-order constructs of this study. It shows no violations i.e., entire inter-construct correlation values are below the square root of the AVE. Therefore, it can be concluded that the discriminant validity of first-order constructs is satisfied. This situation indicates that first-order constructs are acceptable for interpreting the relationship among these constructs.

Table 5: Discriminant Validity of First-order Constructs

	EcoP.EcoPF	EcoP.EnPF	EcoP.SoPF	GSCM Practices
GSCMP.EcoPF	0.910			
GSCMP.EnPF	0.661	0.961		
GSCMP.SoPF	0.295	0.356	0.926	
GSCM Practices	0.621	0.872	0.305	0.890

Note: EcoPF=Economic performance, EnvPF=environmental performance, SocPF=social performance

DISCUSSION OF THE FINDINGS

The significance of the path coefficients was assessed using β (Beta) values and t-statistics through the PLS bootstrapping process for the purpose of identifying the impact of GSCM practices on TBL performance related to the manufacturing industry in Sri Lanka. All three hypotheses related to GSCM practices and TBL performance are accepted because the path coefficient values (β values) are greater than 0.1. Since the t-values of all three hypotheses of GSCM practices which are presented in Table 6 appear as greater than 2.58, it can be identified the significance level is 99% related to all three hypotheses.

Table 6: Path Coefficient and Significance

H		Beta	T Statistics	
H1	GSCM practices -> economic performance	0.621	7.057***	Accepted
H2	GSCM practices -> environmental performance	0.872	32.729***	Accepted
H3	GSCM practices -> social performance	0.305	3.320***	Accepted

Note: *** Significant at 0.01 level

The correlation of the independent variable (GSCM practices) and dependent variables (TBL performance) are analyzed as the next step. It assesses employing the R-square values which show in Table 7. Therefore, the relationship between GSCM practices and economic performance is 0.386, which is a moderate correlation, the relationship between GSCM practices and environmental performance is 0.760, which is a substantial correlation, and the relationship between GSCM practices and social performance is 0.093 and it indicates a weak correlation. These correlations were analyzed following the standard values introduced by Hair et al. (2014) i.e., 0.67 – substantial, 0.33 – moderate, and 0.19 – weak.

Table 7: Correlation between Independent and Dependent Variables

	R Square	R Square Adjusted
GSCMP. Economic performance	0.386	0.380
GSCMP. Environmental performance	0.760	0.757
GSCMP. Social performance	0.093	0.084

The moderating effect of regulatory pressure was examined on the relationship between GSCM practices and TBL performance. Hence, regulatory pressure moderates the relationship between GSCM practices and two dimensions of TBL performance i.e., environmental performance, and social performance.

Table 7: The Moderating Effect

	Direct Relationship		Moderate Effect		Effect
	Beta	T Stat	Beta	T stat	
Regulatory pressure					
GSCM Practice-> EcoPF	-0.104	1.180	-0.49	0.748	No effect
GSCM Practice -> EnvPF	0.309	2.140	0.212	2.641	positive
GSCM Practice -> SocPF	0.474	2.539	0.147	2.491	positive

Discussion

The sample of this study is 100 large-scale manufacturing companies and the population is 721 large-scale manufacturing companies situated in Sri Lanka. Generally, large-scale companies are pressured by many stakeholders to adopt GSCM practices. Therefore, the majority of the sample companies have obtained ISO-14001 certification. Although the companies in the sample do not obtain ISO certification, they have implemented at least one eco-friendly practice such as recycling, reuse, remanufacturing, and investment recovery within their supply chain processes. Therefore, it can be confirmed that all the sample companies have adopted GSCM practices. Thus, the appropriate sample has been chosen for the current study.

GSCM practices mostly affect environmental performance (0.760) when compared with economic performance and social performance. Social performance is affected at a minimum (0.093) while economic performance takes the second position (0.386). However, all three hypotheses that were developed to investigate the impact of GSCM practices on TBL performance have a positive relationship with a 99% confidence level. There is a trend that Sri Lankan manufacturers highly consider their suppliers' ISO-14001 certifications and provide design specifications to suppliers that include environmental requirements for purchased items. Further, manufacturing companies pay attention to environmental audits for suppliers' internal management, cooperation with customers for cleaner production, cooperation with customers for green packaging, and cooperation with customers for eco-design. Moreover, we identified that the commitment of top managers, middle managers, and even employees to GSCM practices is in a higher position in these companies. Consequently, they have gained TBL performance related to their GSCM practices.

Further, we investigated the moderating effect of regulatory pressure on the relationship between GSCM practices and TBL performance. Findings indicated that regulatory pressure moderates the relationship between GSCM

practices and the environmental and social dimensions of TBL performance. However, it was identified through the survey that companies that sell products only to foreign countries highly concentrate on the environmental regulations enacted by clients' countries. This is because of the violation of environmental restrictions agreed upon by the manufacturer and the client, reasoning to reject the entire shipment by the client.

CONCLUSION AND IMPLICATIONS OF THE STUDY

In the Sri Lankan context, comprehensive studies have not been conducted considering IEMP and EGSCM practices as dimensions of GSCM practices to investigate the impact of GSCM practices on TBL performance. Further, all three pillars of TBL i.e., economic, environmental, and social have not been taken into account as performance to explore this relationship. Moreover, the moderating effect of regulatory pressure on this relationship has not yet been examined. Thus, this study provides empirical evidence to the literature related to the impact of GSCM practices on TBL performance and moderating effects of regulatory pressure on the relationship of GSCM practices with TBL performance. The findings of the study confirmed that significant positive relationship between GSCM practices with all three dimensions of TBL performance. Moreover, findings emphasized that the relationship of GSCM practices with environmental and social performances was moderated by environmental regulations. These findings enable academics to review new knowledge on this relationship. Furthermore, practitioners and supply chain managers are motivated by findings to adopt more GSCM practices and build trust with GSCM practices to gain competitive advantages. Moreover, the findings enable policymakers to reform existing policies for implementing GSCM practices and achieving sustainable goals. Future researchers can conduct the same study taking medium-scale manufacturers into account. Since this study considered only the regulatory pressure as the moderating variable, there is an opportunity to carry on a new study considering supply chain pressure, marketing pressure, and competitive pressure as institutional pressure to examine the moderating effect of this relationship.

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