INFLUENCES OF PRESSURE AND GREEN SUPPLY CHAIN MANAGEMENT ON SUSTAINABLE PERFORMANCE OF GREEN MANUFACTURING INDUSTRY IN THAILAND

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Nuttawut Rojniruttikul 2

ABSTRACT

Introduction: Green industries play an important role in economic and social development. The market situation is an important factor for the organizations to be developed with regard to technology, regulations of the government, stakeholders, and the competitors, which all affect the revenue of the companies that are faced with the pressure. Thus, the companies implement the Green Supply Chain Management to obtain advantages over their competition. The Green Supply Chain Management increases the competitiveness and resolves the trade dispute issues. The Green Supply Chain Management is a convergence of the elements of environmental management and supply chain management of the organizations that Thai manufacturers cannot avoid.

Objective: This study aims to develop the pressure model and green supply chain management that affect the sustainable performance of green industries in Thailand

Method: The study uses a Quantitative Research method, and the data was collected using a survey of 250 factory managers as well as analysis with the structural equation model (SEM).

Results: The findings reveal that Pressure has a positive direct effect on sustainability performance and Green Supply Chain Management. And, Green Supply Chain Management (GSCM) has a positive influence on sustainability performance.

Conclusion: Pressure and Green Supply Chain Management positively impact the Green Manufacturing Industry's sustainability performance. Furthermore, Market Needs, Regulations, Stakeholders, and Competitors have a significant impact on the improvement of the competitiveness of organizations. They also promote social and community responsibility throughout the supply chain, enhancing the competitiveness and sustainability of the Green Manufacturing Industry in Thailand in order to develop sustainable economic and social environments.

Keywords: Knowledge Pressure, Green Supply Chain Management, Sustainable Performance, Green Manufacturing.

INFLUÊNCIAS DA PRESSÃO E DA GESTÃO DA CADEIA DE ABASTECIMENTO VERDE NO DESEMPENHO SUSTENTÁVEL DA INDÚSTRIA TRANSFORMADORA VERDE NA TAILÂNDIA

RESUMO

Introdução: As indústrias ecológicas desempenham um papel importante no desenvolvimento econômico e social. A situação do mercado é um fator importante para o desenvolvimento das organizações no que diz respeito à tecnologia, aos regulamentos do governo, às partes interessadas e aos concorrentes, que afectam as receitas das empresas que enfrentam a pressão. Assim, as empresas implementam a Gestão Verde da Cadeia de Abastecimento para obter vantagens sobre a concorrência. A Gestão Ecológica da Cadeia de Abastecimento aumenta a competitividade e resolve as questões de litígio comercial. A Gestão Verde da Cadeia de Abastecimento é uma

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convergência dos elementos de gestão ambiental e de gestão da cadeia de abastecimento das organizações que os fabricantes tailandeses não podem evitar.

**Objetivo:** Este estudo tem como objetivo desenvolver o modelo de pressão e a gestão da cadeia de abastecimento verde que afectam o desempenho sustentável das indústrias verdes na Tailândia.

**Método:** O estudo utiliza um método de investigação quantitativa e os dados foram recolhidos através de um inquérito a 250 gestores de fábricas, bem como de uma análise com o modelo de equações estruturais (SEM).

**Resultados:** Os resultados revelam que a Pressão tem um efeito direto positivo no desempenho da sustentabilidade e na Gestão Verde da Cadeia de Abastecimento. Além disso, a Gestão Verde da Cadeia de Abastecimento (GSCM) tem uma influência positiva no desempenho da sustentabilidade.

**Conclusão:** A Pressão e a Gestão da Cadeia de Abastecimento Verde têm um impacto positivo no desempenho de sustentabilidade da Indústria de Produção Verde. Além disso, as necessidades do mercado, os regulamentos, as partes interessadas e os concorrentes têm um impacto significativo na melhoria da competitividade das organizações. Também promovem a responsabilidade social e comunitária ao longo da cadeia de abastecimento, aumentando a competitividade e a sustentabilidade da Indústria Transformadora Verde na Tailândia, a fim de desenvolver ambientes económicos e sociais sustentáveis.

**Palavras-chave:** Pressão do Conhecimento, Gestão da Cadeia de Abastecimento Verde, Desempenho Sustentável, Produção Verde.

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### 1 INTRODUCTION

Green industries play an important role in economic and social development, both nationally and internationally, as they result in economic and social development for sustainability. The change of the market environment is a key factor for the organizations to be developed [1] in order to reduce the unsustainable development that has occurred in the past. Thailand has acknowledged the importance of environmental issues and ratified the Johannesburg Declaration in 2002 to promote sustainable development, as well as the Manila Declaration on Resource Efficient and Green Industry during the decade 1999 - 2010, which was the period that UNIDO (United Nations Industrial Development Organization) referred to as the Green Industry Initiative [2]. It was developed by providing support to personnel at all levels to understand about the ways that development that is achieved sustainably. The key idea is to conduct business that is environmentally friendly and has social responsibility, and to continue improving the manufacturing process throughout the supply chain in order to develop the industry sustainably [2]. The market situation is an important factor for the organizations to be developed [1] with regard to technology, regulations of the government [3], stakeholders, and the competitors [4], which all affect the revenue of the companies that are faced with the pressure. Because the global awareness of environmental protection is increasing, the companies implement the Green Supply Chain Management to obtain advantages over their competition [5]. The Green Supply Chain Management increases the competitiveness and resolves the trade dispute issues. Therefore, Thai industries will face intense competition. The Green Supply Chain Management is a convergence of the elements of environmental management and supply chain management of the organizations, which is quite new in the field of academic studies [6]. Further research is thus needed to study these factors that have helped
with developing the green industry and making the performance of companies sustainable in order to be able to create competitive advantages.

Green industry that maintains its environmentally friendly business practices for the development of sustainability focuses on three factors, which are: 1) the development and improvement of the efficiency of the production process, 2) the management of the environment for continuous improvement, and 3) the social and environmental responsibility, both inside and outside the organization [2]. Thailand wants economic growth in the industrial sector to be consistent with its potential and the possibility of the ecosystem as well as the well-being of society, such as energy conservation in the production process, the use of resources based on the 3Rs, and Clean Technology, Green Productivity, Eco Design-Eco Product, and Green Label or Eco-Label policies [7].

For Thailand, the green industry is divided into five levels.

Level 1 - Green Commitment.
Level 2 - Green Activity by developing an environmental plan to reduce the impacts.
Level 3 - Green System with systematic management.
Level 4 - Green Culture to create a culture of corporate responsibility and bring it into effect.
Level 5 - The Green Network, which encourages joint ventures and partnerships to enter the green industry through the supply chain, as well as building and developing environmental activities with communities and consumers.

1.1 Pressure

Market change is considered to be an important factor that impacts the organizations, so it needs to be developed in order to be modernized [1]. The changes in marketing have occurred in various types, for both the technology used in each industry as well as the changing of government regulations [3], the customers’ needs, the structure of competition [4], stakeholder pressures, resources, economic benefits, and the environmental consciousness of managers and employees [8]; therefore, the result is that there is an impact on revenues, and the external environment influences the corporate profits [9]. For these reasons, adaptation and innovation are required for the competitiveness [10] as well as the performance of all employees that leads to the development of green innovation [11]. However, there is also the Five Forces Model of Porter [12], consisting of: 1) the barriers to enter into the industry, 2) the pressures from the manufacturers or competitors existing in the industry, 3) the bargaining power of suppliers, 4) the bargaining power of purchasers or customers, and 5) the driving force of other products that can be used as a substitute.

The study of the relevant research and literature on the observed variables of pressure consist of the empirical variables or observed variables as follows.

1) Market Needs involve the buying behavior of consumers who want to buy environmentally friendly products, which enables them to raise the business quality standards [13, 14, 15].
2) Regulation involves the regulations of the government in terms of environmental supervision. These include guidelines for the operations of the organizations by focusing on good performance as well as environmental and community impacts [8, 13, 15].
3) Stakeholders are environmental groups that put pressure on the company to operate on an environmentally friendly basis [8, 13, 15, 16].
4) Competitors refers to the organizations and other manufacturers within the relevant industry in the market that compete in order to maintain their market share [13, 14, 16].
1.2 Green Supply Chain Management

The key to managing the organizations throughout the supply chain under the Value Chain concept of Porter [15] is a process that companies use to create value for their customers sustainably. The success of this management process depends on the collaboration among stakeholders in the supply chain [16], the key concepts of green supply chain management for the sustainable growth [17], the green supply chain management, production and distribution of materials to meet the needs of stakeholders to improve profitability, competitiveness, and the flexibility of the organization for both the short term and middle term [14]. Moreover, it is also described as a socially responsible supply chain [18]. Thus, green supply chain management is a collaborative effort in the organization involving the use of ecological practices. It is a consistent approach to improving the environmental and organizational performance of all levels of management [19]. Green supply chain management includes integrating environmental considerations into supply chain management, consisting of product design and design services, procurement and supply processes, distribution, and product management, in order to achieve sustainable competitive advantages [20].

The research and related literature of the observed variables of the green supply chain management consisting of the empirical variables or observed variables are as follows.

1) Green Purchasing is the procurement of environmentally friendly raw materials. It aims to reduce procurement costs, reduce usage by re-using materials, and recycle materials in the procurement [23, 24, 25, 26].

2) Green Manufacturing is the manufacturing that is effective, environmentally friendly, and socially responsible by using the 3Rs (reduction, recycling, reusing) principles and reduces losses by focusing on green process design [24, 25, 26].

3) Green Distribution is the integration of activities in moving goods throughout the supply chain, including green packaging management aimed at reducing, re-using, and recycling [24, 25, 26].

4) Reverse Logistics is the traceability process of a product based on the reverse logistics having the flow of goods or the goods returned from the consumer to the previous stage throughout the supply chain [23, 25, 26].

1.3 Sustainable Performance

The changes in social, economic, and environmental factors as well as natural disasters have had a severe impact on the economy and the lifestyle of the people. Hence, entrepreneurs who want to implement the environmental management guidelines, especially for entrepreneurs in developing countries and the successfulness on resolving the environmental problems, shall provide new opportunities for the competition and new methods to increase the value for the business [22]. Economic performance is generally associated with lower costs and increased profitability [23]. Environmental performance results from regulatory compliance, community perceptions, and competitive advantages [29, 30]. In the present study, it was found that entrepreneurs must understand the potential patterns of relationships between green supply chain management and environmental performance. Therefore, it is imperative for domestic operators to have a balance of economic growth and environmental protection by understanding the relationship between green supply chain management and the environmental performance, such as the cost of procurement and energy.

Organizations with good economic performance are the organizations that can reduce the cost of purchasing materials, energy costs, the cost of waste treatment, waste disposal costs, and the cost of environmental accidents taking place during operations [24] as well as develop social performance to demonstrate, improve, and maintain the quality of life of the community.
and society without destroying the natural environment around the community or gaining benefits from the natural resources belonging to the community [17], the reduction of environmental risk, the participation in environmental protection, and the improvement of their corporate image (Luthra et al., 2016).

However, a GSCM-driven guidelines study shows the factors that drive GSCM to the successful GSCM practices are government laws regarding competition, the compliance with regulations, the customer needs, the successfulness, and the responsibility towards the society as well as being effective for organizations that can reduce the use of resources [13]. Several research studies have indicated that lack of knowledge in the use of research data is a factor because green supply chain management and environmental performance are focused on green product procurement, design and green production, green distribution, reverse logistics, and performance relationship analysis [21].

The study of the relevant research and literature of the observed variables of the Sustainable Performance consisting of empirical variables or variables can be summarized as follows:

1) Social Performance is the result of improving performance for the benefit and the quality of life in society without destroying the environment, and it does not seek for the benefits of natural resources [15, 24, 32].
2) Environment Performance is the result of environmental performance and organizational performance to reduce pollution, rubbish and waste, and the use of hazardous and toxic materials, as well as support recycling, re-use, and re-production [15, 24, 32].
3) Economic performance is the performance based on the economic objectives in assessing the cost of purchasing materials, power consumption, avoidance of losses, and increased profitability [15, 24, 32].

After reviewing the relevant literature, the research model can be developed as presented in Figure 1, and the following hypotheses are presented:

Hypothesis 1: Pressure has direct and indirect influence on sustainable performance.
Hypothesis 2: Pressure has a direct influence on Green Supply Chain Management.
Hypothesis 3: Green Supply Chain Management has a direct impact on sustainable performance.

**Figure 1:** Conceptual Framework

**Source:** Researcher, 2023
Influences of Pressure and Green Supply Chain Management on Sustainable Performance of Green Manufacturing Industry in Thailand

This research, therefore, has two objectives: to develop the pressure model and the green supply chain management that affect sustainable performance in green industries in Thailand and to study the direct influence and indirect influence as well as the influence of variables affecting sustainable performance in green industries in Thailand.

2 METHOD

This research is quantitative research using a questionnaire as a research tool. The development of the questionnaire was designed to be a measure of the conceptual framework and practical definitions. The 7-point Likert Scale [25] was used as the measuring instrument or questionnaire as shown in Table 1. In this case, validity test of questionnaire was conducted by five experts examined the consistency of the questionnaire and IOC value was more than 0.5, which is in line with acceptable standard of IOC. Furthermore, reliability test was conducted by try-out method collecting data from 30 samples to measure the internal consistency by using the α-coefficient of Cronbach in order to calculate the mean of the correlation coefficients, and Cronbach alpha value was 0.869, which was more than 0.70, so it was considered as having a high confidence level [26].

In this research analysis, the researchers selected the AMOS program to conduct the analysis of the correlation of the variables and applied the Structural Equation Model (SEM) for the causal analysis of the variables. The correlation analysis was performed by using high-level statistics and variance. Lomax & Schumacker [27] stated that the analysis of the structural equation model (SEM) needs to use larger sizes than any other samples in order to obtain the correct evaluation and be able to be representative of the population well [26], and to have the distribution of the data in a Normal Curve. Therefore, the unit of analysis means employees equal to 250 factories, and it uses simple random sampling from companies that have certified Green Levels 3 - 5 only. This is the environmental standards ISO 14001 (environmental management systems), and ISO 50001 (energy management system standard). The data providers included managing directors, factory managers, and department managers.

The Analysis of Measurement Model with Confirmatory Factor Analysis (CFA) was conducted using the AMOS program, which evaluates by using the Maximum Likelihood Estimation (ML) method to analyze the variables in the Reflective measurement model. The statistics used for checking the compliance, the harmonization between measurement models and the goodness of fit measures are based on the accepted criteria as presented in Table 2.

Table 1 Measurement and development of research questions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Manifest Variables</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
<td>1) Market Needs</td>
<td>8, 13, 14, 15, 36, 37</td>
</tr>
<tr>
<td></td>
<td>2) Regulations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Stakeholders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4) Competitors</td>
<td></td>
</tr>
<tr>
<td>Green Supply Chain Management</td>
<td>1) Green Procurement</td>
<td>15, 23, 25, 32, 24</td>
</tr>
<tr>
<td></td>
<td>2) Green Manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Green Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4) Reverse Logistics</td>
<td></td>
</tr>
<tr>
<td>Sustainable Performance</td>
<td>1) Social Performance</td>
<td>15, 24, 32, 38, 39</td>
</tr>
<tr>
<td></td>
<td>2) Economic Performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Environment Performance</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, 2023

Table 2 Compliance criteria

<table>
<thead>
<tr>
<th>Relevant statistics</th>
<th>Symbol</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>$\chi^2$</td>
<td>Ns. (p &gt; .05)</td>
</tr>
</tbody>
</table>
3 RESULTS

The analysis of the Structural Equation Model is a multivariate analysis technique that includes factor analysis and multiple regression analysis together, and such technique provides benefits to the researchers in terms of checking the relationships between variables efficiently [26]. The statistical program for SEM monitoring using the AMOS program found that the pressure had a standard regression weight with the value between 0.347 - 0.897, the R² or Squared Multiple Correlation is between 0.121 - 0.805, the Green Supply Chain Management has a Standard Regression Weight of 0.793 - 0.895, and the variance (R² or Squared Multiple Correlation) is between 0.629 - 0.800. Sustainable Performance has a Standard Regression Weight between 0.778 – 0.910 and a variance (R² or Squared Multiple Correlation) between 0.605 – 0.828 (Table 3). The results of the analysis of the consistency between the conceptual models and the empirical data presented that the model equation was in harmony with the empirical data (Model Fit) (Fig. 2), and it has the test value as follows:

\[ \chi^2 \text{/df} = 34.695, \text{df} = 38, \text{GMIN/DF(} \chi^2 \text{/df}) = .913, \text{GFI} = .975, \text{CFI} = 1.000, \text{AGFI} = .957, \text{NFI} = .981 \text{ and RMSEA} = .000. \]

Analytical results: The structural equation of the model is as follows.

\[ \text{GSM} = 0.40 \text{ Pressure, R}^2 = 0.16 \]  
\[ \text{Sustainable Performance} = 0.91 \text{ Pressure} + 0.17 \text{GSM}, R^2 = 0.99 \]

<table>
<thead>
<tr>
<th>Relationship of variables</th>
<th>Standard Regression Weights</th>
<th>S.E.</th>
<th>Squared Multiple Correlations</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSM &lt;--- Pressure</td>
<td>.397</td>
<td>.070</td>
<td>.158</td>
<td>5.731</td>
<td>***</td>
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<tr>
<td>Sustainable Performance</td>
<td>.173</td>
<td>.039</td>
<td>4.483</td>
<td>***</td>
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<tr>
<td>Sustainable Performance</td>
<td>.914</td>
<td>.051</td>
<td>.991</td>
<td>18.290</td>
<td>***</td>
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<tr>
<td>Stakeholders &lt;--- Pressure</td>
<td>.467</td>
<td>.067</td>
<td>.218</td>
<td>7.746</td>
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<td>Distribution &lt;--- GSM</td>
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<td>.067</td>
<td>.800</td>
<td>17.236</td>
<td>***</td>
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<tr>
<td>Social &lt;--- Sustainable Performance</td>
<td>.910</td>
<td>.828</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental &lt;--- Sustainable Performance</td>
<td>.778</td>
<td>.605</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic &lt;--- Sustainable Performance</td>
<td>.822</td>
<td>.675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulations &lt;--- Pressure</td>
<td>.897</td>
<td>.805</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Subadi, S. (2023)
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<table>
<thead>
<tr>
<th>Competitors</th>
<th>Pressure</th>
<th>.347</th>
<th>.064</th>
<th>.121</th>
<th>5.542</th>
<th>***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse Logistics</td>
<td>GSM</td>
<td>.793</td>
<td>.062</td>
<td>.629</td>
<td>15.055</td>
<td>***</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>GSM</td>
<td>.844</td>
<td>.712</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>GSM</td>
<td>.803</td>
<td>.066</td>
<td>.644</td>
<td>15.053</td>
<td>***</td>
</tr>
<tr>
<td>Market Needs</td>
<td>Pressure</td>
<td>.841</td>
<td>.049</td>
<td>.708</td>
<td>18.165</td>
<td>***</td>
</tr>
</tbody>
</table>

Note: The significance level ***p<.01.  
Source: Subadi S. (2023)

**Table 4** Results of the hypothesis testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Coef.</th>
<th>t-test</th>
<th>TE</th>
<th>DE</th>
<th>IE</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Sustainable Performance &lt;--- Pressure</td>
<td>0.914</td>
<td>18.290</td>
<td>0.983</td>
<td>0.914</td>
<td>0.069</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: GSM &lt;--- Pressure</td>
<td>0.397</td>
<td>5.731</td>
<td>0.397</td>
<td>0.397</td>
<td>-</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: Sustainable Performance &lt;--- GSM</td>
<td>0.173</td>
<td>4.483</td>
<td>0.173</td>
<td>0.173</td>
<td>-</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: ***significant at the 0.01 level, Coefficient refers to the Beta (β)  
TE: Total effects, DE: Direct effects, IE: Indirect effects, Coefficient: coef.  
Source: Subadi S. (2023)

Chi-square ($\chi^2$) = 34.695, df = 38, p = .623, CMIN/DF(\chi^2/df) = .913, GFI = .975, CFI = 1.000, AGFI = .957, NFI = .981 and RMSEA = .000

**Figure 2**: Final Model  
Source: Researcher, 2023

### 3.1 Hypothesis testing results

For the hypothesis testing by using the t-Value (CR), p-Value, and the findings of the correlation of the variables in each pair together with evaluating the influences between the variables obtained from the standard regression coefficients of the variables, the standard regression coefficients (coef.) of the correlation paths for each hypothesis presenting CR (t-test) were found. The significance was to have a CR value of more than 1.96 for every value, so the results support all hypotheses, and the results of the hypothesis testing and the influence of the research variables are presented in Table 4.
Hypothesis 1: Pressure has a positive direct effect on sustainability performance. The hypothesis test results presented that the coefficient of regression (coef.) = 0.914, and it was indeed acceptable under the assumption of statistical significance at p < 0.01.

Hypothesis 2: Pressure has a positive direct influence on Green Supply Chain Management. The hypothesis test presented that the coefficient of regression (coef.) = 0.397, which was accepted by the assumption of statistical significance at p < 0.01.

Hypothesis 3: Green Supply Chain Management has a positive influence on sustainability performance. The hypothesis test presented that the coefficient of regression (coef.) = 0.173, which was accepted by the assumption of statistical significance at p < 0.01.

4 DISCUSSIONS

From the study on the Influences of Pressure and Green Supply Chain Management on the Sustainable Performance of the Green Manufacturing Industry in Thailand, it was found that Pressure and Green Supply Chain Management affects the sustainable performance of the Green Manufacturing Industry; therefore, this supports the hypotheses, which is consistence with Zhu et al., [28]. The Green Supply Chain Management (GSCM) has become a modern tool for the ecological system of Chinese manufacturers to achieve a balance of environmental performance with productivity and profitability and the manufacturers who are aware of the environmental compliance requirements associated with the use of GSCM and the impact of regulatory pressure as well [29].

The study of the relationship between GSCM driving factors, the market's impact controls, regulations, and competitive pressures in this research presented that regulatory pressures have a positive impact on the relationship between GSCM driving factors. In addition, Chien [14] studied green supply chain management for sustainable enterprises and other relevant environmental standards, as well as the Green Design Strategy, the green innovation, the green production, the purchasing of green products, green services, and Green Supply Chain Management (GSCM) [32], which have a positive impact on the economic, environmental, and social performances of organizations. Zhu et al., [30] studied Green Supply Chain Management practices in achieving environmental and business performance by using Green Supply Chain Management and Environment/Economic Performance. Moreover, Jain & Sharma [13] studied the Green Supply Chain Management (GSCM) regarding its practices and performance. The study focused on the GSCM’s driving performance, the GSCM, and the impact of GSCM, including government law competition, the compliance with regulations, the customer needs, the successfulness, and the responsibility towards the society [31]. The GSCM-based organizations are mostly a response to the need to maintain a competitive edge in the industry.

5 CONCLUSION

Regarding the proactive implementation in the development of the industry for the environment and society by focusing on promoting and developing the industry to grow and develop sustainably and to promote the industrial sector to be environmentally friendly and socially responsible, it has resulted in the industry having a good image and trustworthiness, and thus, it creates the green economy. All sectors need to prepare the country’s economic system to adapt to sustainably accept the impact of various pressures by developing people, building knowledge, technology, innovation, and creativity on an environmentally friendly manufacturing basis. The Green Supply Chain Management (GSCM) has a positive impact on the sustainability of the Green Manufacturing Industry as well as the competitive environment in the industry. Hence, it can reduce the use of resources and enhance the industry to operate in
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an environmentally friendly manner. Moreover, the organizations will have the social responsibility to co-exist happily with society and communities for sustainable development.

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