Sustainable Supply Chain in the Textile Industry

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Abstract

Manufacturing businesses in underdeveloped nations like Bangladesh began using Sustainable Supply Chain Management (SSCM) to assure and carry out their environmental duty. Obtaining sustainable output in the setting of SSCM is quite difficult. This study examines the knit composite industry's current Supply Chain Management (SCM) and its impact on the environment. The negative impact that existing SCM has on the environment is grave and hazardous. Three considerations environmental, social, and economic concerns are taken into account to close the gap between the SSCM & the firm's manufacturing process. These serve as examples of SSCM in the production process and aid in making it sustainable from the standpoints of the producer and the consumer. As a result, this article first expresses issues regarding the drivers in SSCM and how they are incorporated into the SSCM process. Then, several obstacles are identified & graded using the Analytical Hierarchy Process (AHP) & Triangular Fuzzy Numbers (TFN) technique. The decision-makers will be helped by this suggested model to reduce the main obstacles to SSCM.

Keywords

Sustainable Supply Chain Management (SSCM), Analytical hierarchy Process, Triangular Fuzzy Method, Weighted Average Methods and Decision Analysis.

1. Introduction

Bangladesh's economy has expanded quickly, earning it the nickname "The new Asian tiger." RMG sector is one of the numerous sectors that assisted us in winning this championship. A large number of knitted garments are exported throughout the world by knit composite businesses, helping to advance the RMG industry and bringing in foreign cash. .The procedure at a knit composite plant begins with the receipt of yarns from spinning mills and finishes with the shipment of knitted garments. Numerous procedures are engaged between these two points, ensuring both the quality of the final product and meeting client expectations. Numerous knitted clothes, including T-shirts, polo shirts, leggings, tank tops, tights, cardigans, pullovers, playsuits, knitted trousers, and more are exported from Bangladesh. These play a significant role in our nation's ability to acquire foreign cash. An integrated supply chain process is an essential component in ensuring the quality of the final product. Suppliers provide yarns and other raw materials to the knit composite industry. The production process, which involves knitting, cutting, stitching, washing, finishing, quality checking, and other steps, then begins. Then, for distribution, these clothes are transported to the customers in various locations. Consumers purchase goods from retail establishments.Bangladesh has a lot of natural resources and labor, but we also need to consider the future. Our garment industry is having some difficulties providing high-quality, affordable items with a short lead time as we approach a new century. The competitiveness is growing not just domestically but also internationally, raising concerns about the future of our RMG industry. We should concentrate on that as well, given that our rival nations have recognized the advantages of SSCM. Therefore, SSCM integration into the manufacturing process is urgently needed at the moment given the present scenario. The RMG industry consumes a lot of resources and produces a lot of pollution. It is important to remember that protecting the environment ultimately makes financial sense.The RMG industry in Bangladesh must adopt an integrated approach to address environmental challenges.Environmental, economic, and social concerns are addressed via a sustainable supply chain management strategy. To achieve a green manufacturing process, company owners and policymakers alike must integrate SSCM into their operational procedures. Implementing SSCM is a crucial path that should be carefully chosen since it is not an easy notion to suggest and there are many tasks to be completed. To successfully use these variables and drive sustainable supply chain management, it is crucial to have in-depth understanding of them. When applying the SSCM approach in an industry, there are a few major factors that must be taken into consideration. These forces are in charge of making sure that a firm is more sustainably run.

It is crucial to recognize these drivers and their effects on the three SSCM variables. A few obstacles stand in the way of achieving sustainability, and these must be removed for efficient SSCM implementation. In order to eliminate them from the supply chain process, these need also be addressed. To prioritize these barriers and determine which ones cause the greatest damage to the firms, a strategic technique was established.

2. Literature Review

While SSCM is a much larger strategy, supply chain management is the process of putting management methods and philosophy into practice (Svensson, 2007). According to the Department for Environment, Food, and Rural Affairs, a sustainable supply chain demonstrates a long-term commitment to procurement and supply chain management that takes into account "the environmental, social, and economic consequences of design, non-renewable material use, manufacture and production methods, logistics, service delivery, use, operation, maintenance, reuse, recycling options, disposal, and suppliers' capabilities to address these consequences throughout the supply chain".The development of a sustainable supply chain method is the subject of much research. There are still certain research gaps that require attention. “Quantitative research in SSCM” and "Using dynamic programming, goal programming to simulate real life complicated sustainable elements" are a couple of them(Ansari & Kant, 2017).Businesses concentrate on many facets of sustainability. Stefan Seuring stated that extensive study and research in this discipline has led to better and better knowledge in the field of SSCM. Various techniques, including case studies, action research, and survey research, have been useful in this area(Seuring, 2011). Some concentrate on the environmentally friendly aspects, while others pay more attention to social and economic issues(Walker & Jones, 2012). Recently, it has been seen that businesses are switching from traditional SCM to sustainable SCM(Beske-Janssen et al., 2015). According to Philip Beske's analysis, the number of publications in the SSCM area have increased steadily and significantly during the past several years. Dynamic capabilities were proposed by Philip Beske as a way to acquire a persistent competitive advantage(Beske, 2012).It is argued that the Triple Bottom Line (TBL), also known as the economic, environmental, and social factors taken together, is the most crucial factor in achieving SSCM (Brandenburg et al., 2014).Interval value TFN & MCDM approach is used in a study to demonstrate the SSCM hierarchical structure based on competing priority. To be more precise, the impacts on performance enhancement in terms of quality, cost, innovation, and flexibility(Lin & Tseng, 2016). Another study outlined the impact of stakeholder pressure on sustainability in supply chain management, including how it may lead to the adoption of sustainability objectives and the implementation of sustainability practices. Different categories of stakeholders have different types of impact on different aspects of sustainable supply chain decisions(Meixell & Luoma, 2015). In order to create a hierarchical structure, an analysis is performed by stressing the crucial elements and criteria and applying some exploratory factor analysis. It will have a significant impact on sustainable supply chain management and be used to choose suppliers.The management of the company should also put more effort into developing long-term views in order to address the SSCM challenges and enhance performance(Su et al., 2016).There is a link between Sustainable Supply Chain Management (SSM) and Green Supply Chain Management (GSCM) (SSCM). Performance, flow, stakeholder relationships, and efficiency should all be given more weight(Ahi & Searcy, 2013). It is advised that businesses concentrate on post-use as well as the three primary processes of pre-manufacturing, production, and usage. For SSCM to be successful, resources must be used more efficiently and waste must be generated less(Badurdeen et al., 2009).A method is created to connect sustainability standards to supply chain choices and to enable the development of consistent performance metrics for method analysis. This approach is also connected to mathematical programming, which allows for the cogent integration of the three Sustainable Supply Chain Management dimensions: economic, environmental, and social effect(Boukherroub et al., 2015).Experts used the Delphi technique, a group communication procedure, to convey their opinions on the SSCM. Pressure and incentives, risk management, and supplier management were recognized as important challenges(Seuring & Müller, 2008). Companies should do a rigorous review before deploying SSCM, according to a proposal made by Roger Burnitt and Stefan Schalteggar. Discovering risks and possibilities is necessary, and a strategic plan should be created based on the evaluation(Schaltegger & Burritt, 2014).Businesses moving toward SSCM have been shown to have to deal with business instability. For a business to be sustainable in the long run, it must be renovated and reestablished(Zailani et al., 2012).Ila Manoj and John T. Mentzer noted that businesses moving toward SSCM may encounter numerous hazards. They stated that the business may experience supplier risk, operational risk, demand risk, and so on(Manuj & Mentzer, 2008). A theoretical framework that will describe the intricate interplay of variables in the dynamic environment of SSCM has been developed. Total Interpretive Structural Modeling (TISM) will be used in this framework. It will make it easier to explain how dynamic interactions between product design, improved brand equity, and cost reductions work.According to Carter & Rogers, significant SSCM facilitators include strategy, risk management, organizational culture, and openness(Carter et al., 2019).The interaction between the buyer and seller needs more attention. It is predicted that SCM will develop primarily through the use of EDI (Electronic Data Interchange), VMI (Vendor Managed Inventory), CRP (Continuous Replenishment Program), ECR (Efficient Consumer Collaborative Planning), and CPF&R

(Collaborative Planning, Forecasting & Replenishment) (CPFR). There should be better planning done for demand, procurement, and product design(Attaran & Attaran, 2007). It has been discovered that external pressure on industry comes from the government, stakeholders, and customers, while internal pressure comes from rival supply chains(Gold et al., 2009).To classify SSCM within the three categories of economic, environmental, and social factors, four strategies were found. The Analytic Hierarchy Process (AHP), Life Cycle Assessment (LCA), Equilibrium Model, and Criteria Decision Making (MCDM) are among them(Seuring, 2013). Businesses are found to encounter a range of challenges while converting to SSCM. Making a decision between immediate profitability and long-term sustainability is really difficult (Wu & Pagell, 2011).The interactions amongst the decision-makers will be enhanced if high-quality solutions can be found in a short amount of calculation time(Eskandarpour et al., 2015). It is frequently discovered that supply chain managers have a good or negative impact on their environmental and social performance measurement. To provide the business more competitive advantages in the sustainability space, they often search for efficient and effective suppliers(Azadi et al., 2015). Resources still accessible for the following generation should be taken into consideration. Consideration should be given to the influence and consequences of product design, manufacturing byproducts, product life extension, product end of life, and product recovery method at end of life (Linton et al., 2007).Sustainability may be leveraged as a competitive advantage, according to Antony Paulraj. Some consumers could favor businesses that use green methods. Additionally, he advocated for the strategic appraisal of resources and capabilities (Paulraj, 2011). Companies are now adopting more ecologically friendly practices as a result of recent advancements in environmental safety. Small and large businesses are already beginning the process of implementing SSCM(Diabat et al., 2014). The involvement of every department within the organization is crucial for the success of green supply chain management (Lee, 2008).

2.1 Objectives

1. Quantitative study in SSCM to predict supply chain risk.
2. To close the gap between the SSCM & the firm's manufacturing process.
3. Application of the model to reduce the main obstacles to SSCM of a Textile industry.

3. Methods

The practice of sustainable supply chain management is described in prior study based on numerous performances. Before incorporating sustainable supply chain management into the organization's manufacturing process, a few specific concerns must be resolved. Some obstacles must be located and reduced. It should also be taken into account how it would impact the sustainability elements. In the parts that follow, we gathered and examined some pertinent data in order to address the issues at hand. The next sections will also show how drivers' effects on SSCM will be prioritized in relation to other obstacles.

3.1 Data Collection

Data collection is the act of gathering information in a methodical fashion that makes it possible to respond to some study-related inquiries. The effectiveness of research studies is heavily dependent on the methods used to acquire correct data. Ineffective data gathering yields inaccurate study findings. As a result, the study's validity will be lost. Errors will appear less frequently if accurate data is collected. Three flow methods are used in sustainable supply chains. Along with achieving the objectives of the three aspects of sustainability-environmental, economic, and social-managing materials, information, and cash flow is one of its fundamental tasks. The drivers that have the greatest influence on sustainable supply chain management are found and sorted out in this study after reviewing several publications(Uddin, et al., n.d.).The companies are becoming increasingly interested in implementing SSCM systems. However, there are various obstacles that prevent creating a sustainable production method. Finding solutions to these problems is quite important in this regard. We looked at a variety of books, international publications, and conferences. In order to identify the obstacles in SSCM, we also polled a variety of enterprises. The implementation of SSCM faces some significant challenges. In below Figure 1 challenge or barrier names are given that are directly involved in Sustainable Supply Chain Management.

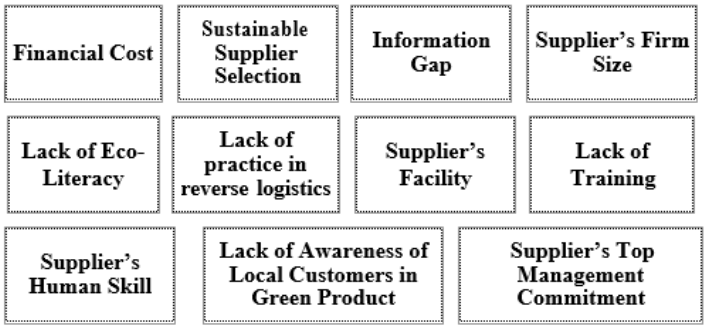

Figure 1. Barriers of Sustainable Supply Chain Management

Data analysis is a systematic way to evaluate data for discovering new information & to support decision making process. There are various methods for analyzing data. In the previous part we collected relevant data by studying various national & international journal & conferences. We also conducted a survey. To evaluating these data, here we used the Analytical Hierarchy Process (AHP), Triangular Fuzzy Numbers (TFN) & Weighted Average Method. Some drivers are found after examining numerous publications and surveys and will help SSCM. These motorists were chosen as being the best from Bangladesh's standpoint (Dubey et al., 2017).

Table 1. Criteria Weights

	Financial Cost	Information Gap	Lack of Training	Lack of Awareness of Local Customers In Green Product	Lack of Practice in reverse logistics	Lack of Ecoliteracy	Supplier's Facility	Supplier's Human Skill	Supplier's Top Management Commitment	Supplier's Firm Size	Sustainable Supplier Selection
Financial Cost	1	5	3	3	5	3	5	3	3	4	2
Information Gap	0.2	1	2	4	5	3	2	3	3	2	3
Lack of Training	0.33	0.5	1	0.25	0.5	0.5	0.5	0.5	0.5	0.33	0.25
Lack of Awareness of Local Customers In Green Product	0.33	0.25	4	1	3	3	2	3	3	2	0.33
Lack of Practice in reverse logistics	0.2	0.2	2	0.33	1	4	2	3	3	3	0.2
Lack of Ecoliteracy	0.33	0.33	2	0.33	0.25	1	5	5	4	5	0.33
Supplier's Facility	0.2	0.5	2	0.5	0.5	0.2	1	3	2	3	0.33
Supplier's Human Skill	0.33	0.33	2	0.33	0.33	0.2	0.33	1	0.33	2	0.25
Supplier's Top Management Commitment	0.33	0.33	2	0.33	0.33	0.25	0.5	3	1	3	0.33
Supplier's Firm Size	0.25	0.5	3	0.5	0.33	0.2	0.33	0.5	0.33	1	0.33
Sustainable Supplier Selection	0.5	0.33	4	3	5	3	3	0.25	3	3	1
	4	9.27	27	13.57	21.24	18.35	21.66	25.25	23.16	28.33	8.35

In Table 1. We made a Criteria Weights to find the impact of them in Sustainable Supply Chain Management and in Table 2 Description of the Drivers are given that are directly related.

Table 2. Drivers of Sustainable Supply Chain Management

Drivers	Description
Green Product Design	The focus is on creating items with a shorter life cycle that have a less negative environmental impact.
Strategic Supplier Collaboration	Collaborating with suppliers on problems that will prevent the SSCM from being installed. It's critical to develop methods that will benefit both parties.

Social Ethics & Values	Societal conventions that have been established that a person or industry inherits. For SSCM, strong ethical standards are necessary.
Corporate Strategy & Commitment	The effective strategy process for SSCM implementation should involve commitment from all parties involved.
Economic Stability	It is difficult for a firm to even consider SSCM if it is not financially sound. When the economy is stable, it is possible to switch to a supply chain that is more environmentally friendly.
Buyer Influences	For SSCM, customer influence is essential. If customers expect a supply chain that is more environmentally friendly, the business will inevitably experience some amount of sustainability.
Government Regulatory Pressure	The government should create some laws and regulations that businesses must abide by. This is the aspect of Bangladesh that is more crucial.
Environmental Commitment	A crucial component is a commitment to environmental preservation. We must practice more responsible consumption while thinking about the next generation.
Internal Pressure	The corporation itself should be the source of the urgency of SSCM. It is difficult to execute SSCM without the support of top management.

3.2.1The Analytical hierarchy Process (AHP)

The analytical hierarchy approach provides a comparison as well as an effective way to prioritize among several criteria in a complicated system. This approach subdivides the issue in a hierarchical manner. The decision-maker can compare the elements of the hierarchical structure thanks to this analysis. AHP is a tool that uses both qualitative and quantitative characteristics to handle many types of issues. It links knowledge-based information to suggest a choice. People's experiences may provide this information. Single choice decisions, multiple option decisions, ranking decisions, prioritizing, resource allocation, benchmarking, and quality management are all determined using AHP.In this study, AHP is used to prioritize the barriers in implementing Sustainable supply chain management. It will be helpful for the decision makers to make decisions on which barriers to work on for minimizing.
The criteria weights are compared between the barriers to set the scores for each criterion.

Table 3. Prioritization by Analytic Hierarchy Process (AHP) Method

	Financial Cost	Information Gap	Lack of Training	Lack of Awareness of Local Customers in Green Product	Lack of practice in reverse logistics	Lack of Eco-Literacy	Supplier's Facility	Supplier's Human Skill	Supplier's Top Management Commitment	Supplier's Firm Size	Sustainable Supplier Selection	Score
Financial Cost	0.2500	0.5394	0.1111	0.2211	0.2354	0.1635	0.2308	0.1188	0.1295	0.1412	0.2395	0.216396
Information Gap	0.0500	0.1079	0.0741	0.2948	0.2354	0.1635	0.0923	0.1188	0.1295	0.0706	0.3593	0.154197
Lack of Training	0.0825	0.0539	0.0370	0.0184	0.0235	0.0272	0.0231	0.0198	0.0216	0.0116	0.0299	0.031704
Lack of Awareness of Local Customers in Green Product	0.0825	0.0270	0.1481	0.0737	0.1412	0.1635	0.0923	0.1188	0.1295	0.0706	0.0395	0.098804
Lack of practice in reverse logistics	0.0500	0.0216	0.0741	0.0243	0.0471	0.2180	0.0923	0.1188	0.1295	0.1059	0.0240	0.082324
Lack of Eco-Literacy	0.0825	0.0356	0.0741	0.0243	0.0118	0.0545	0.2308	0.1980	0.1727	0.1765	0.0395	0.100031
Supplier's Facility	0.0500	0.0539	0.0741	0.0368	0.0235	0.0109	0.0462	0.1188	0.0864	0.1059	0.0395	0.058732
Supplier's Human Skill	0.0825	0.0356	0.0741	0.0243	0.0155	0.0109	0.0152	0.0396	0.0142	0.0706	0.0299	0.037505
Supplier's Top Management Commitment	0.0825	0.0356	0.0741	0.0243	0.0155	0.0136	0.0231	0.1188	0.0432	0.1059	0.0395	0.052376
Supplier's Firm Size	0.0625	0.0539	0.1111	0.0368	0.0155	0.0109	0.0152	0.0198	0.0142	0.0353	0.0395	0.037721
Sustainable Supplier Selection	0.1250	0.0356	0.1481	0.2211	0.2354	0.1635	0.1385	0.0099	0.1295	0.1059	0.1198	0.13021
	4	9.27	27	13.57	21.24	18.35	21.66	25.25	23.16	28.33	8.35	1.0000

Table 3 is the same way we have made criteria weight but the methodology is Analytical Hierarchy Process.

3.2.2Triangular Fuzzy Method

In this work, a different approach, similar to triangular fuzzy numbers, is applied. It's a crucial metric. Practical issues including risk analysis, optimization, and medical decision-making are solved with it. To determine the fuzzy numbers, the barriers are entered into the triangular fuzzy algorithm. The preceding AHP method's priority of obstacles is shown by these numbers (Akyar et al., 2012).

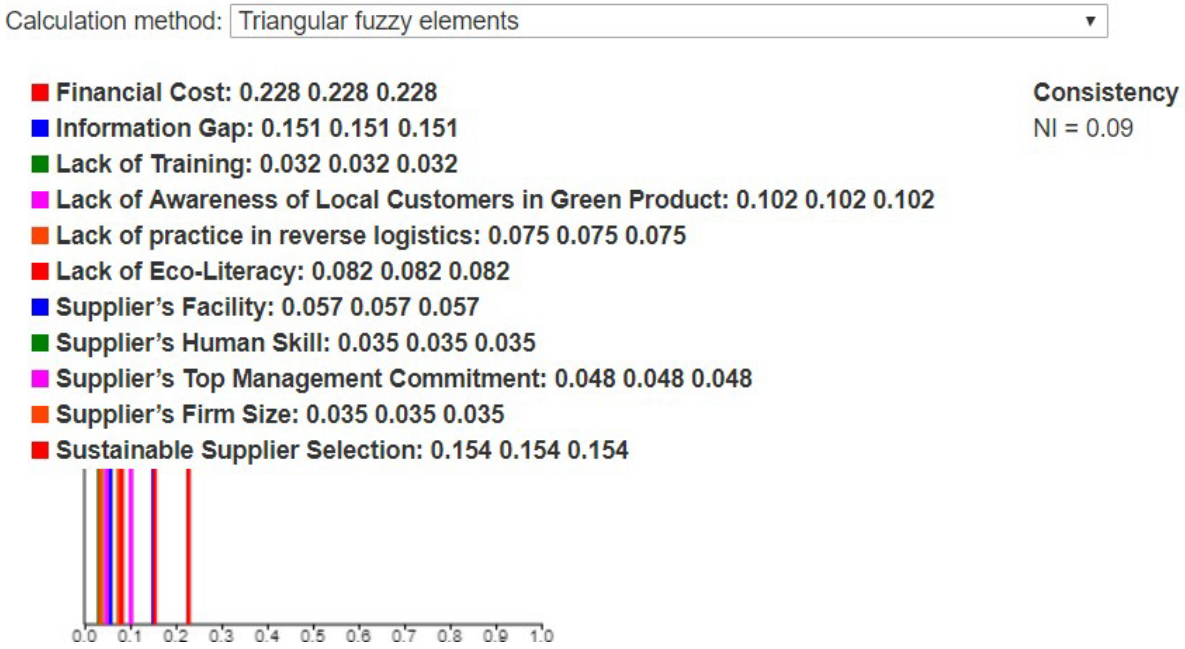

Figure 2. Prioritization by Triangular Fuzzy Numbers

Table 4. Prioritization by Triangular Fuzzy Numbers

Barriers	Score
Financial Cost	0.228
Information Gap	0.151
Lack of Training	0.032
Lack of Awareness of Local Customers in Green Product	0.102
Lack of practice in reverse logistics	0.075
Lack of Eco-Literacy	0.082
Supplier's Facility	0.057
Supplier's Human Skill	0.035
Supplier's Top Management Commitment	0.048
Supplier's Firm Size	0.035
Sustainable Supplier Selection	0.154

Table 4 is the same way we have made criteria weight but the methodology is Triangular Fuzzy Numbers.

3.2.3 Weighted Average Methods

A weighted average approach simply multiplies each criterion that has been averaged by a quantity dependent on the relative value of the criterion. The outcome is added together, then divided by the weighted average. In this study, the weighted average approach is used to calculate the effects of drivers in a sustainable supply chain management for the three factors: social, economic, and environmental. Table 3.5 lists the effects of the environmental, social,

and economic aspects of sustainability. The results of our survey are as follows. The findings of numerous organizations' surveys are also factored into their weighted score.We graded the influence of drivers on the three aspects in table 3.6 from extremely high to very low. They are also given a score for calculation's sake. The following formula is used to get the final score:
Final score= Environmental Impact (Weighted score) *Impact of driver + Social Impact (Weighted score) *Impact of driver + Economic Impact (Weighted score) *Impact of driver

Table 5. Impact on Dimensions of SSCM

Criteria	Weight
Environmental	0.5
Economic	0.3
Social Impact	0.2

Table 6. Scores of Relative Importance

Impact	Score
Very High	5
High	4
Moderate	3
Low	2
Very Low	1

In Table 5 we made criteria weight and in Table 6 we made Impact and the score.

Table 7. Weighted Score Calculation of Drivers of Sustainable Supply Chain Management

Drivers	Environmental Impact	Economic Impact	Social Impact	Final Score
Green Product Design	Very High	Moderate	High	4.2
Strategic Supplier Collaboration	Very Low	Very High	Low	2.4
Social Ethics & Values	Very Low	Very Low	Very High	1.8
Corporate Strategy & Commitment	Low	Very High	Low	2.9
Economic Stability	Very Low	Very High	Moderate	2.6
Buyer Influences	Moderate	Moderate	Low	2.8
Government Regulatory Pressure	High	Moderate	Low	3.3
Environmental Commitment	Very High	Moderate	High	4.2
Internal Pressure	High	Moderate	Moderate	3.5

And collaborating the Table 5 and 6 we made a weight score in Table 7.

4. Data Collection

In Textile Industry Supply Chain Management, a survey is conducted based on the factor analysis. The questions used to identify variables, their likelihoods, and affects make up the survey component. Expert knowledge, historical data, and supply chain structure are used. By combining the predicted values of risk characteristics, the detected risks are measured. During two stages of fieldwork, project managers were interviewed and a survey employing questionnaires was used to collect data on their experiences with project risk management.

5. Results and Discussion

After collecting all the data and using methodologies we prioritize the barriers and Drivers of Sustainable Supply Chain Management.

5.1 Prioritization of Barriers

The results show that the prioritization of barriers in both the Analytical Hierarchy Process (AHP) & The Triangular Fuzzy Methods. In both the process financial cost is ranked the highest priority barrier with the value of 0.216396 (AHP) & 0.228 (TFN). It is followed by sustainable supplier selection & information gap. Sustainable supplier selection got score of 0.130 (AHP) & 0.154 (TFN). Competitively Information gap obtained score of 0.154 (AHP) & 0.151 (TFN). Lack of awareness of local customers in green product scored 0.098 (AHP) & 0.102 (TFN). Another barrier lack of eco literacy got a score of 0.100 (AHP) & 0.082 (TFN). Lack of practice in reverse logistics scored

0.082 (AHP) & 0.075 (TFN). Facility of supplier is also defined as a barrier & it scored 0.058 (AHP) & 0.057 (TFN). Suppliers top management commitment got a score of 0.052 (AHP) & 0.048 (TFN). When we look at the supplier's firm size, we see that it scored 0.0377 (AHP) & 0.0355 (TFN). Suppliers human skill got a score of .0375 (AHP) & 0.0355 (TFN). Lack of training scored the lowest 0.031 (AHP) & 0.032 (TFN). As the graph depicts these should be the uttermost concern for an organization to work on.

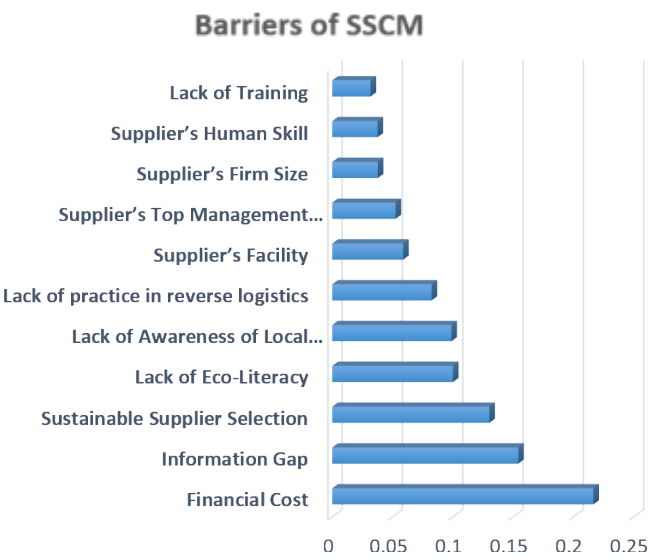

Figure 3. Prioritization by AHP Method

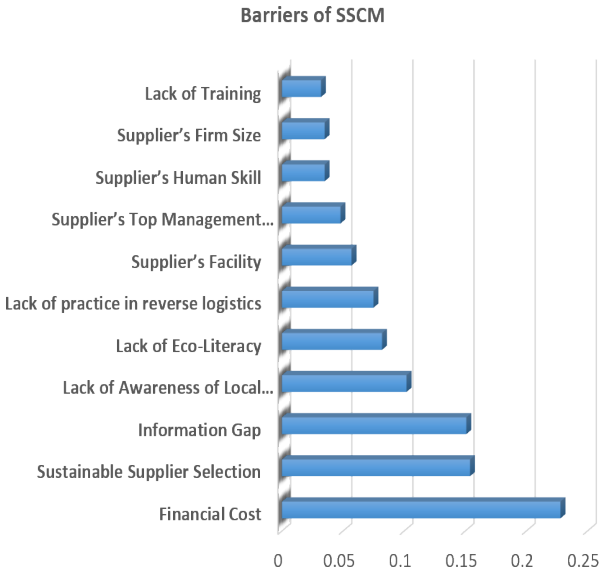

Figure 4. Prioritization by Triangular Fuzzy Numbers

5.2 Drivers of SSCM

The effects of drivers on dimensions of sustainability are analyzed by weighted- average method. The results are shown below:

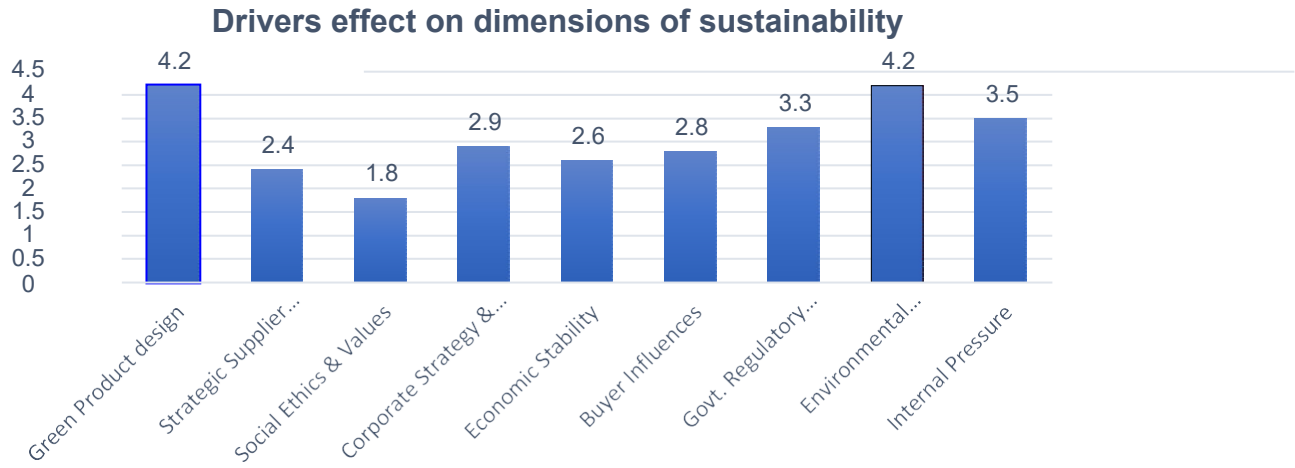

Figure 5. Drivers effect on dimensions of sustainability

Green product design & Environmental commitment have the peak impact on Sustainable supply chain management with the score of 4.2. They are followed by internal pressures & Govt. regulatory pressures with a score of respectively 3.5 & 3.3. Corporate strategy commitment & buyer influences are competing closely with the score of 2.9 & 2.8 respectively. Economic stability got a score of 2.6 & strategic supplier collaboration got 2.4. Social ethics & values got the lowest of them all & it is1.8. These should be taking into concerns while designing the SSCM structure.

This research will help the firm's manager to identify the top barriers that need to be reduced, impacts of drivers on the dimensions of sustainability.

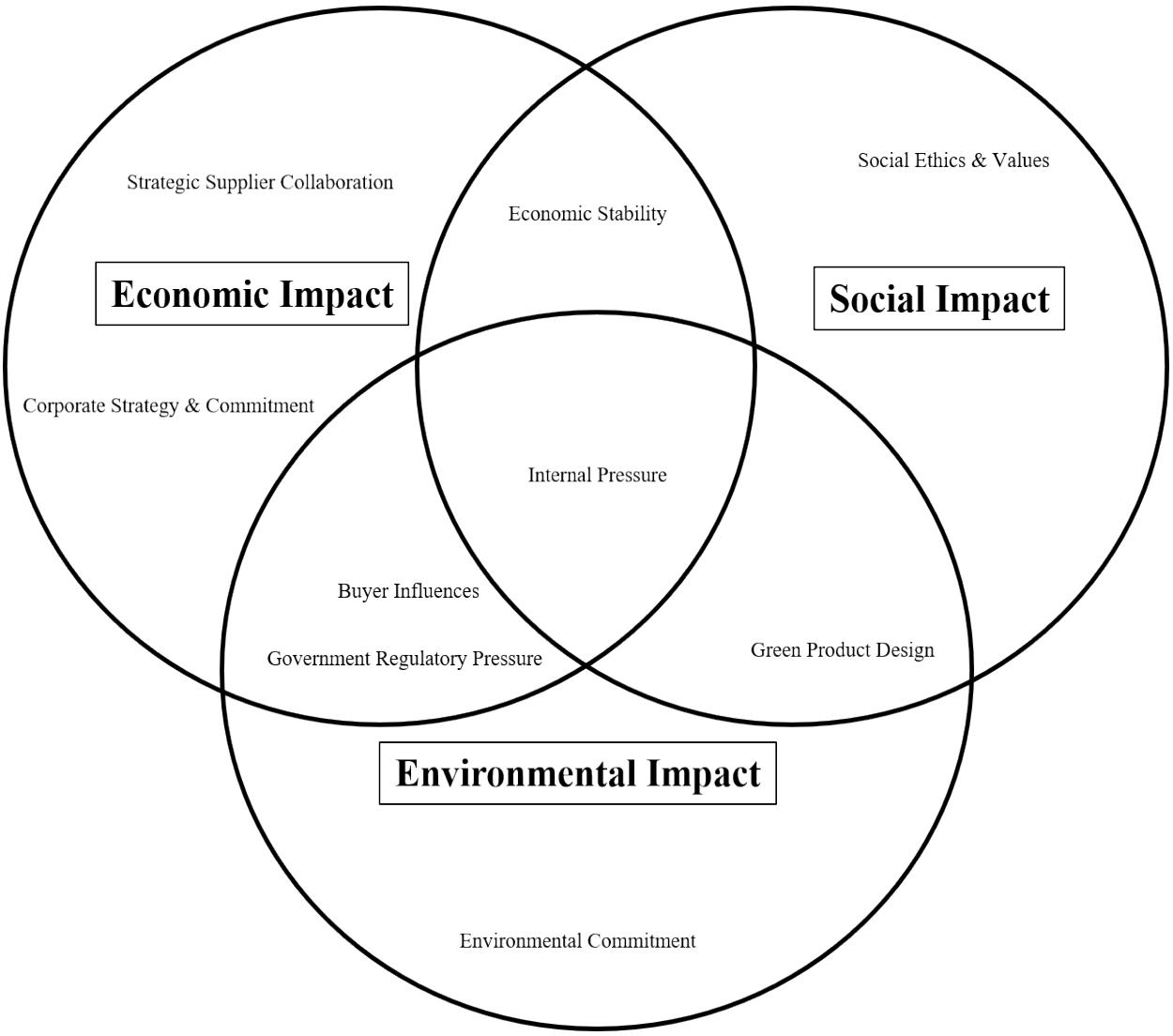

Figure 6. Drivers of Sustainable Supply Chain Management

6. Conclusion

The goal of this project is to create a framework for SSCM. In this research, the priority levels of the hurdles that a knit composite firm may encounter when implementing SSCM are illustrated using certain well-established mathematical techniques. Barriers are prioritized using the Analytic Hierarchy Process (AHP) and Triangular Fuzzy Numbers (TFN) according to their respective weighted criteria. For the drivers who will assist SSCM, another mathematical procedure called the weighted average method is put into place. Which drivers have the most influence from an environmental, economic, and social standpoint is demonstrated by this procedure.

It is only inevitable that there would be certain restrictions while creating such a crucial structure. Like as
1. There may be certain obstacles that a knit composite manufacturer encounters when implanting SSCM that are not included by this study. Other obstacles can be present. More research and study might help to overcome this restriction.
2. Although there has been extensive research and study on sustainability, businesses really give it relatively little thought. Profitability and gaining a competitive edge over competitors are given more attention. It is very

challenging to adopt SSCM unless corporations start to care about the value of sustainability and environmental preservation.

Limitations may not necessarily be viewed as a bad thing because they open up options for future research.
The methodological approach used in this study entails creating a supply chain that will provide it a lasting competitive edge while also benefiting the environment, the economy, and society. This document might be useful for businesses planning to employ SSCM if correctly implemented. There is a ton of room for more research in this area.

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