

## The Green Supply Chain Model Implications For Economic And Environmental Sustainability Via Corporate Social Responsibility

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Article Info	Abstract
<p><b>Article History</b></p> <p>Received: October 14, 2022</p> <p>Accepted: January 16, 2023</p> <hr/> <p><b>Keywords :</b> Green Production, Green Warehousing, Green Distribution, Green Transportation, Green Raw Material, Green Design, Green Purchasing, Green Logistics, Green Supply Chain Management, Corporate Social Responsibility, Economic Sustainability, Environmental Sustainability.</p> <p><b>DOI:</b> 10.5281/zenodo.7542495</p>	<p><i>Ecology is a difficult yet vital issue. Techniques such as green supply chain management are required for humans to embark on a new business transformation centred on long-term sustainability. We must enhance our business practices in order to foster economic progress and protect our planet from further damage. This research attempts to develop a business system that addresses an organization's economic as well as environmental obligations by aligning the organization's numerous goals in the context of profit and Sustainability. To assess the expected results, the research took a qualitative method. To assess the findings, a "systematic literature" study was conducted. As a result, the report recommends that businesses adopt the notion of strategic corporate social responsibility. The concept of 'strategic' CSR is that consideration for non-shareholders' concerns may be acceptable if it benefits stakeholders financially. This might result in financial rewards for companies who embrace it, as well as competitive advantages over companies that do not. This variant of CSR may be appealing because it addresses criticisms centred on an imagined "trade-off or zero-sum" connection among stakeholder and non-shareholder advantages. This is crucial for firms functioning under policy structures those priorities interests of the shareholders over the interests of other customers. A company would analyse CSR by evaluating it to a series of well-established criteria that correspond to the organization's goals and take appropriate actions, using any evaluation model as a framework such as green supply chain management. Furthermore, in order to reduce costs and improve the efficacy of environmental regulation monitoring, officials must adapt methods of climatic regulation and encourage economy-based procedures such as pollution licence trade, substance taxes, green tax etc.</i></p>

### Introduction

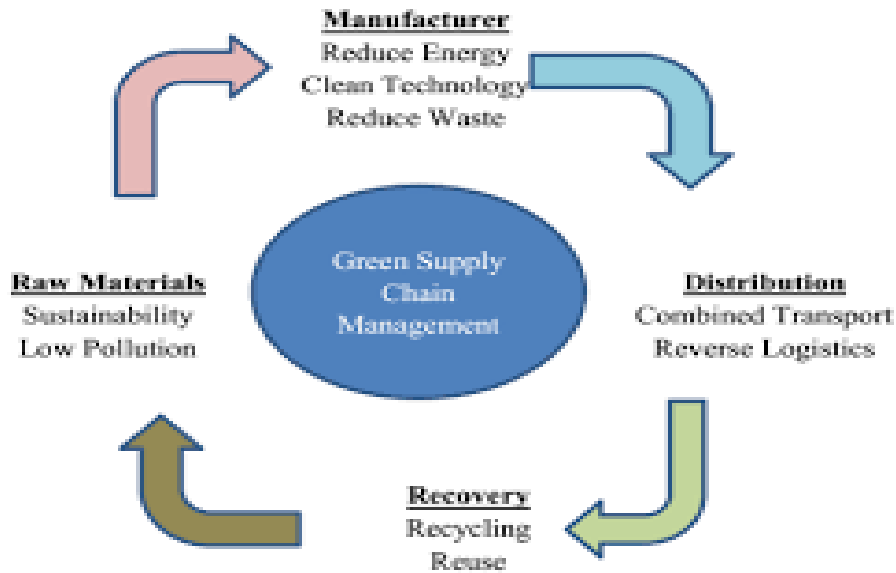
#### Supply Chain Management

The "Supply Chain" is the transportation of resources from their origin to the final user. As per Christopher, the production Process generates revenue in the shape of goods and services for end consumers via various procedures and operations carried out by a group of businesses with "upstream and downstream" links. Manufacturers, buying production centers, storage houses, transportation, distributing facility, and retail stores may be included in the system, production, and operations, and also source materials, work-in-process inventories, and finally completed goods that move between the sites.

#### Green supply chain management

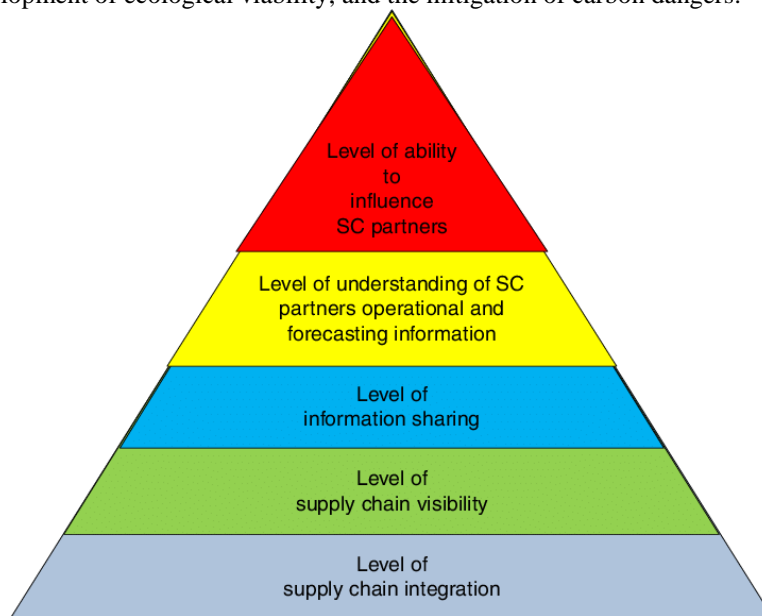
The notion of incorporating ecological sustainability procedures within the conventional production network is referred to as "green supply chain management (GSCM)." Design work, order fulfillment and procurement, operations, administration, and end-of-life administration are examples of these activities. Green supply chain management" seeks to eradicate or reduce wastes (energy, toxic gases; GHGs /chemical pollutants, and waste products).

The focus of "GSCM" ranges from the implementation and surveillance of overall environmental managerial programs to much more attempting to create or managing processes enacted through diverse "R's (Reduce, Re-use, Rework, Refurbish, Reclaim, Recycle, Remanufacture and Reverse logistics" towards achieving a GSCM waste segregation has been regarded as a crucial strategy development. The wastage produced by any action that is a non-value-added job.



**GSCM and Environmental sustainability** (Source: Tseng, 2019)

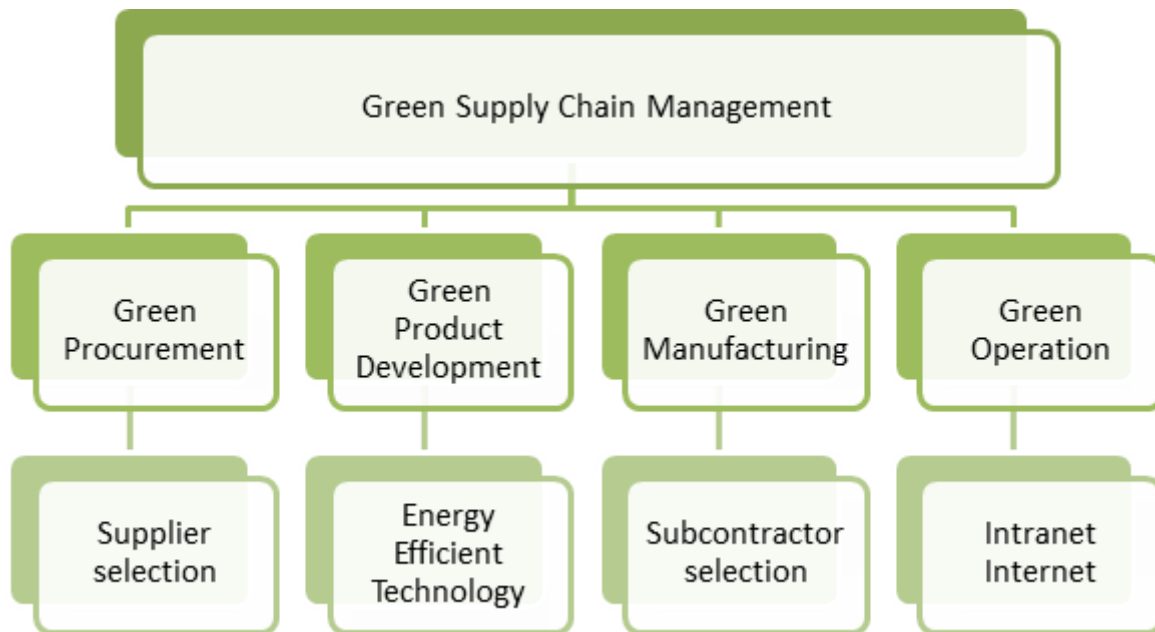
The most essential aspect for enterprises implementing sustainable practices in the supply logistics is budget reduction. Sustainable supply chain activities would assist in reducing the prices of packing, parts, including resources by utilizing "reused, recycled, and remanufactured" items. Green practices, give opportunities to enter new markets and sell to pro-environmental nations, but polluted enterprises are reluctant to deliver their commodities to countries with good ecological conditions such as Germany, the United States, Poland and the United Kingdom."Green supply chain management" strategies, without a doubt, have become a technique for enterprises to reduce the expense of manufacturing items, boost revenue, and also improve competitive shares. Businesses, on either side, use sustainable techniques in its corporate processes to enhance ecological impact. Societal effectiveness suggests a development in people's quality of existence while sacrificing natural magnificence. Furthermore, efficacy measurement encompasses the development of a company's business reputation, the development of ecological viability, and the mitigation of carbon dangers.



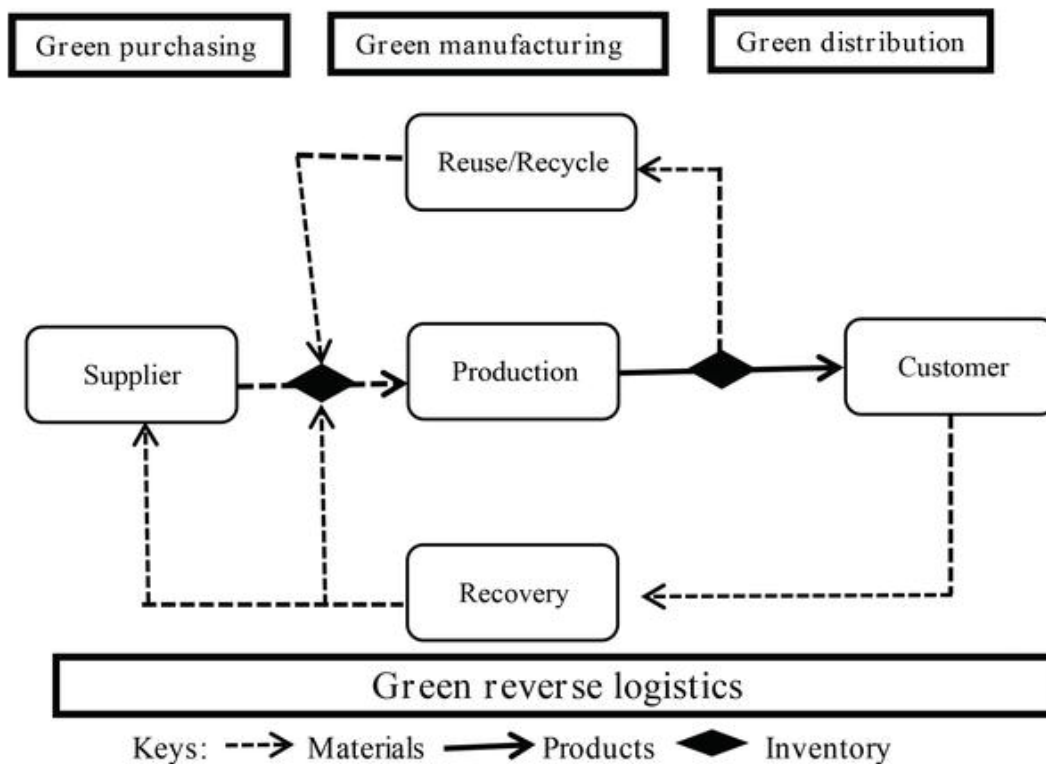
**Hierarchy of supply logistics** (Source: Mahedevran, 2017)

Companies that implement GSCM methods may improve their organizational efficiency by enhancing products' reliability and transportation services. "Green supply chain management" proposals also assist organizations in improving their ecological achievement by reducing greenhouse gas emissions, eliminating wastages from the end-to-end distribution string, and collaborating effectively and strongly with products in order to reduce network overhead and conveniently encourage reusability, composting, and reprocessing.

Integrating an "environmental management system (EMS)" into a company's production approach can help it improve its environmental efficiency.



Green supply chain management (Source: Srivastara, 2007)



**Sustainability**

There in midst of escalating climatic difficulties, scarcity of natural resources, rising concerns for social accountability, and the necessity to maintain profits, sustainable construction has become a top priority for every business. Because of the structure of its operation, the industrial processing sector, specifically, places a major premium on sustainable practices. The business includes the exploitation of raw resources such as oil products, petroleum, and metals, extremely energy procedures, and the management of enormous quantities of poisonous, combustible, and dangerous substances.

The drive for environmentalism has compelled the chemical processing sector to assess the long-term viability of its logistics operations. Deloitte (2010) and McKinsey (2010) performed studies that showed the impact of "supply chain management" for green practices (2010). Although sustainability is often considered as containing 3 pillars, ecological/environment, financial/ economic and sociological components (Bonini, 2011), the economic and environmental dimensions has gotten greater emphasis than that of the social part. "Green supply chain management (GSCM)" is the merger of ecological philosophy with "supply chain management" that attempts to assist organizations find ways to reduce along the distribution chain. According to the literature, the scope of Green Supply chain management is broad and includes everything from sustainable sourcing through product development, order fulfillment and procurement, safe production, distribution of the finished item to clients, and control over product reliability beyond its useful life (Srivasta, 2007).



**Environmental sustainability components** (Source: Attah,2010)

Green marketing has garnered a lot of interest in the engineering processes research, mainly in the field of distribution network development or construction. A popular technique is to develop a quantitative optimizing technique with the goal of maximizing financial advantages while reducing ecological consequences. Selections encompass choosing the best raw resources, vendors, technology, and transit channels (Fahimnia et al., 2015 and Mele et al., 2011). Financial success may be assessed using metrics like as revenue or consumer happiness. Aspects of sustainability encompass reducing waste algorithms including "life cycle assessment (LCA)-based metrics" like "CML 2001" (Guinée, 2002). Whereas many articles concentrate on architecture and construction, limited emphasis is paid to practical elements and supply management fluctuations.

The supply chain is a network of vendors, production facilities, depots, and sales networks that are arranged to obtain building resources, process those into completed goods, ultimately deliver those to clients. "Supply chain" choices including such basic resource, intermediary, and packing procurement; location of production site; including manufacturing, storing, and shipping rules all has a substantial influence on sustainable practices. The functioning of a "supply chain" is complicated because it comprises several cooperating parties with varying functions and restrictions. As lead, complicated interactions emerge, that may arise in unanticipated cascade consequences. Delays in communication, a lack of transparency, as well as the existence of numerous risks all impede strategic and operational verdict.

#### **Corporate social responsibility (CSR)**

"Corporate social responsibility (CSR) in supply chain management (SCM)" increasingly piqued the interest of organizations and consumers, as firms are progressively required to evaluate the influence on external stakeholders and community." Corporate social responsibility" enables organizations to control risk throughout broad and complicated distribution networks by providing data about whom they acquire from and, in response, which provides their vendors all the way along the network. Corporate policies that require associates to adopt good business practices are examples of CSR efforts. Profits are reinvested in health and safety or environmental projects. Charitable groups in the regions in which a firm works are supported. Furthermore, CSR initiatives may raise personnel satisfaction in the company and contribute to increased efficiency that has an influence on the firm's profitability. Customers' acquisition and devotion can be increased by companies who embrace corporate social responsibilities.

#### **Research objectives**

The objectives of the study are to identify economic responsibilities of an organization with respect to green supply chain management. Finally, the study would propose a framework in which economic and environmental responsibilities could be aligned to promote environmental sustainability.

### Literature Review

“The process of employing environmentally friendly inputs and changing these inputs into outputs that can be reclaimed and re-used at the end of their life cycle, thereby producing a sustainable supply chain”, is characterized as green supply chain management.

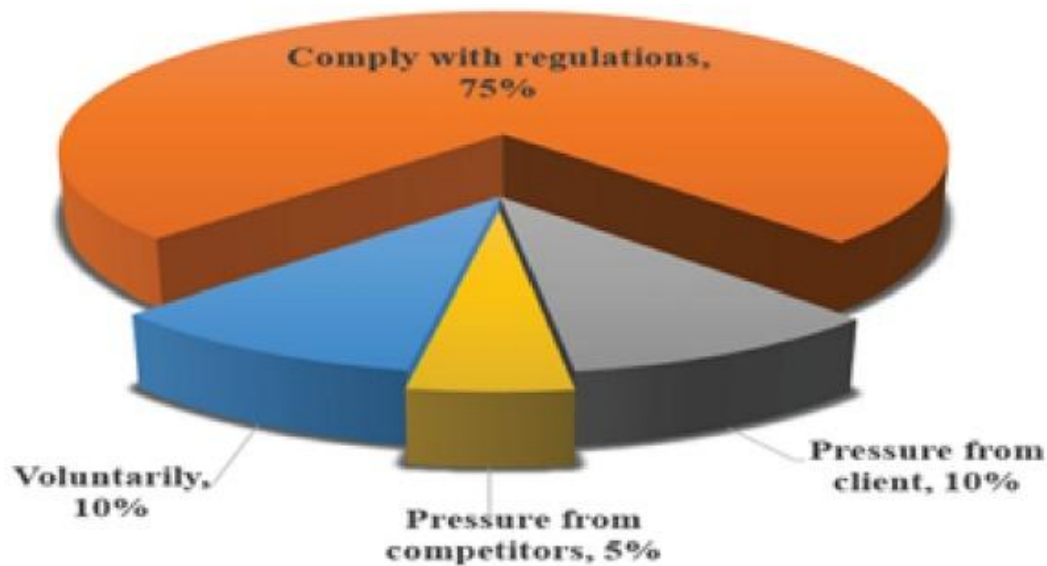
### Corporate Social Responsibility

Businesses' actions, procedures, policies, and processes have grown increasingly morally sound. A corporation's economic situation improves from a "corporate social responsibility (CSR)" policy, as do its customers, employees, stakeholders, the ecosystem, society, and civilization as whole. As a consequence, it is vital to investigate and comprehend the extent to that a corporation is ethically responsible. With this in mind, the purpose of this study is to provide a new measure for conceptualising and measuring the phenomena of corporate social responsibility that is based on a holistic and system modelling approach. It uses a multivariate regression structural equations model to conceive, develop, and evaluate a framework to quantify CSR within the confines of the organization's corporate planning processes. It will offer us with an international, national, or community-level measurement or index of business ethics. A CSR index would show how much a company cares about social issues and where it falls short, if at all. The pros and cons of numerous model parameters would also show attributes at a given stage, allowing the company to specify exactly what is necessary to increase its duty to people, the environment, and society at large (Kanji et al., 2010).



Corporate Social responsibility (Source: Du et al., 2010)

As climate consciousness grows across the nation, businesses are under intense stress from a variety of stakeholders, along with the authorities and consumer, to reduce their negative impact on the climate. (Luthra et al., 2016). Moreover, in order to gain a competitive edge, corporations must examine combining their corporate operations in the service and production industries with sustainability and lowering back to back supplier network expenses. Over the previous several years, the rising consequences of global warming, garbage, air contamination and climate change concerns have drawn greater worldwide interest from specialists to consider more ecological sympathetic and find the best available solutions to "Green" challenges. (Mangla et al., 2013 and Rostamzadeh et al., 2015 According to Rath (2013), Green supply chain management (GSCM) has a role in inspiring corporate sustainable development. With ecological considerations on the rise, GSCM wants to receive to be a constant communal issue in industrialized countries. Furthermore, it has currently awoken the emerging world to the environmental protection. (Kumar, 2014).



**Reasons for implementation of GSCM** (Source: Zulkefi et al., 2019)

### **Green logistics**

In present era, the term "logistics cost" encompasses not just monetary expenditures, as well as the exterior expenses of weather disruption, air pollution, trash disposal, soil depletion, sound pollution, resonance, and tragedies. Green Logistic is a method of lowering this expense.

### **Drivers of Green Logistics**

Green logistics is swiftly acquiring traction in the logistics and distribution chain business, as environmental preservation has risen to the highest point of the priority list for governments all over the nation. The mentioned variables are important in driving green logistics:

#### **Increasing energy costs**

Increasing electricity and fuel expenses, as well as the prices of relevant commodities, have highlighted the demand for a greater expense green option. Limited IT systems, alternative power resources, and reusing may all help to improve the main point of firm financial statements.

#### **Global alarm over Greenhouse Gas emission**

Business strategies are increasingly focusing on detecting and reducing the carbon impacts left by its IT technology, employees and infrastructure

#### **Climate Change**

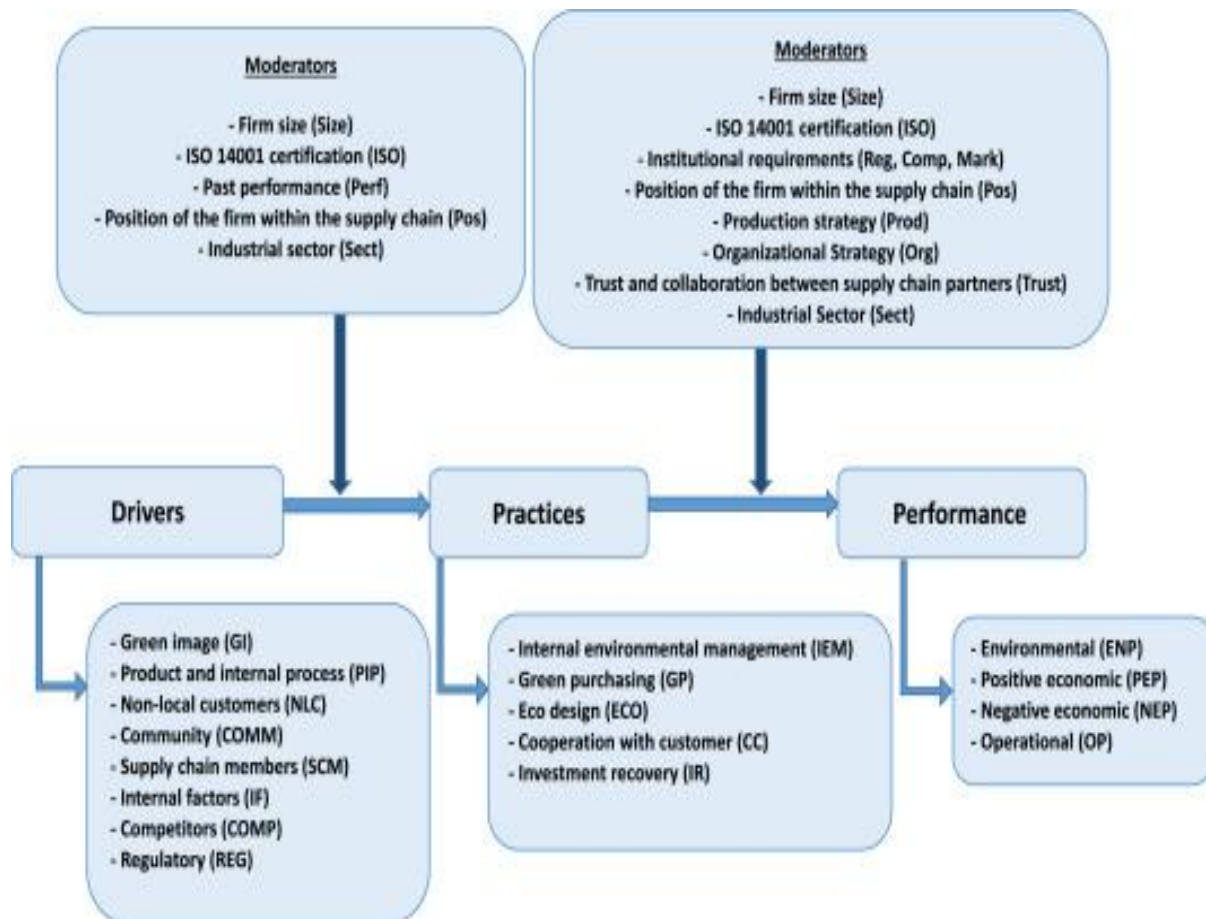
Global warming is having a detrimental influence on the southern and northern hemisphere climate, ice sheets, and mountains. The increase in sea level caused by the loss of ice caps and mountains is becoming a major source of issue for ecologist in whole universe.

#### **Government and Environmental Protection Agency regulations**

To earn an Energy Star Rating and various ecological approvals, a company must adhere to strict guidelines. Penalties imposed from law enforcement authorities for failing to comply with carbon emission requirements is other motivating element for Green IT projects.

#### **Improved environmental awareness among the community**

An effective and prospering Green IT plan is built on vendor choice founded on Green IT practices, discussion of effective practices among organizations all over the distribution network, and back to back adherence throughout the distribution network.



**Drivers of Green logistics**(Source: Micheli et al., 2020)

### **Green practices in supply chain management**

Corporations increase their production and ecological development by using several green practices in their company and supply chain activities. Although a few familiar green techniques include the following.



GSCM components (Source: Saada, 2020)

### Green material sourcing

Green procurement refers to obtaining or acquiring products and equipment that have desirable eco-features such as renewability, recycled content, and the absence of harmful substances. Sourcing experts had been driven to evaluate the present procurement, buying method, and influence on sustainable development as ecological regulations have grown. Reuse and recycling play a part in environmentally conscious shopping. Green procurement, according to Min and Galle, promotes wastage minimization by enhancing recycling, reusing, and other distribution network processes. Carter and Rogers conducted studies to investigate the influence of green procurement on the ecological and economic efficiency of businesses. Investigators determined that, as a result of the effective implementation of green buying strategies, product costs are lowered, and enterprises' ecological and economic achievements are improved, as is their marketing position. According to Zailani et al., ecologically friendly buying has a favorable association with organizations' functional and ecological efficiency. Green buying was classified into 5 major aspects: distribution network monitoring, verification of environment, ecological, design operation management and exterior ecological governance. They verified that procurement increased the entire effectiveness of the businesses. Green buying in the distribution network and corporate operations is a dependable technique for reducing wastage, and pollution of water and air.

### Green marketing

Green advertising encompasses a wide variety of business operations (e.g., planning, manufacturing, processing, cost, promotions, including after sale support) aimed at demonstrating the company's intention of mitigating the detrimental consequences of their commodities. Green promotion is a promotional approach that advertises items that are ecofriendly. It includes practices that can fulfill people aspirations while having the least amount of harmful impact on the climate's attractiveness. Furthermore, green marketing improves organizations' competition, economic and ecological efficiency, as well as their company brand and identity.

### Green management

Green management practices (GMP) offer companies with additional kinds of knowledge which can help them achieve their economic and ecological goals. Implementation of green management methods contributes to enhanced business reputation, higher performance, better ecological adherence, price reductions, attainment of social promise, and minimization of carbon production, among other benefits.

### Green distribution and warehousing

Green supply and storing may decrease wastage and perform a key part in power savings. The value contribution of green goods in storage considerably improves entire functioning of the business having a



stronger business identity. Green distributing aids businesses in achieving greater economic and ecological results.

### Green manufacturing

Green production techniques aim to incorporate culturally and ecologically responsible practices in order to reduce the negative consequences of production while also increasing business profit. Green manufacturing strategies increase the performance of operations. Such approach entails the use of green sources, which can contribute to a comparative benefit by lowering goods costs and improving standard of products. Both the lean and green production industries strive to reduce wastage and increase the productivity of production operations. The advantages of green products as the green production methods reduce the negative impacts of production methods on ecological durability, while green production improves a company's functional, ecological, and economical effectiveness.

### Ecological design

The use of environmental planning in supplying network management may control 80 percent of environmental consequences from products and method related activities. Numerous concepts such as employing cleaning technology methods, green raw materials, and eco-friendly products are incorporated into environmental designing. Green products concept decreases an item's environmental effect throughout its life cycle. Furthermore, green product methods encourage reuse, recycling, and reprocessing, that not just serves businesses to enhance their ecological efficiency but often allows them to save money.

### Green transportation and reverse logistics

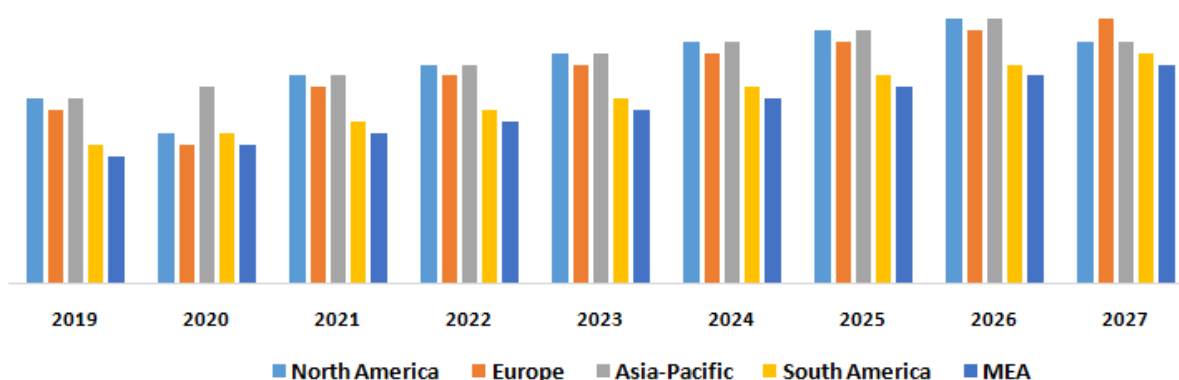
Corporations may enhance their reputation while lowering expenses by using green transportation and backward logistics strategies. Logistics costs may be reduced by improving the performance of distribution networks, and consumers can be improved to increase profit. The activity of backward logistics (reprocessing, recycle and reusing), that can generate items which can be utilized afterwards for clients, is one of the logistics operations combined with recovery. Green logistics enables businesses decrease their ecological effect while improving efficiency and lowering costs.

### Renewable energy and biofuels

Without a doubt, global logistics and distribution network activities rely heavily on power and fossil fuels, as these are the primary contributors to weather impact, global warming, and pollution due to increased carbon and climatic gas pollution. In order to achieve sustainable ecological and financial development, supply chain activities must use biofuel and renewable energy. Logistics support activities require more power to complete. Biofuel and renewable energy boost business productivity while also lowering carbon pollution. Furthermore, fossil fuels are high costly than biofuels and other sources of energy. Harsh state restrictions, along with increased consumer knowledge, put stress on businesses to adopt biofuels and ecofriendly energies in the distribution networks. Bioenergy reduces carbon pollution while simultaneously improving the revenue of businesses by enhancing their reputation and brand.



**Global Reverse Logistics Market, By Region  
2020-2027**



Global reverse logistics (Source: Bolat, 2019)

### GSCM Challenges

Several organizations have benefited from green production chain efforts, but they have not been lacking obstacles in their deployment. The research has shed lights on the different obstacles or problems that could prevent the sector from implementing Green supply chain management. Some authors categorized the challenges as institutional challenges, informational challenges, organizational challenges and economic challenges (Khidir & Zailani 2009; Government & Perron, 2014; Mathiyazhagan et al., 2013). Some authors, on

the others hand, split the obstacles into 2 categories: internal challenges and external challenges (Balasubramanian, 2012; Walker, Di Sisto, & McBain, 2008).

### Internal challenges

Internal difficulties are described as those that arise inside the individuals or organizations themselves. Economic restrictions were regarded as the highest major internal barrier in the research (Ojo, Mbowa, & Akinlabi, 2014). According to Khidir and Zailani (2009), there are two categories of costs associated in supplying chain ecological planning: direct costs and transactions costs. According to previous research, implementing a green supply chain can lead to higher economical performances and profitability (Mollenkopf, Closs, Twede, Lee, & Burgess, 2005; Zhu & Sarkis, 2004). Green supply chain management, on the other hand, has higher operating expenses, which has hampered its adoption by businesses (Balasubramanian, 2012; Benachio, Freitas, & Tavares, 2019; Khidir & Zailani, 2009; Mathiyazhagan et al., 2013; Min & Galle, 2001; Varnäs, Balfors, & Faith-Ell, 2009). This is especially true for enterprises with low available resources.

Aside from the fiscal constraints, altering an organization's and gamers' mindsets and cultures proven to be a considerable barrier in adopting GSCM. One of the most difficult jobs for companies is to change their basics and key characteristics (organizational objectives, forms of power, core technology, and operating and marketing approach). Top managerial commitment and guidance are critical in guiding firms in a new path. It is critical for management to encourage and promote ecological awareness amongst their employees. Other obstacles to GSCM implementation in the sector include a scarcity of funds (technical competence, technologies, materials, and processes), a lack of awareness and experiences, and an absence of standard ecological control regulations to manage inside the business (Balasubramanian, 2012; Government & Perron, 2014; Jabbour, Mauricio, & Jabbour, 2017; Khidir & Zailani, 2009; Trigos, 2016).

### External Challenges

External variables, in contrast to internal considerations, created additional hurdles for the industry in applying GSCM. As per the research, the building industry's most major external obstacle is an absence of government backing (Rao and Holt, 2005; Walker et al., 2008; Khidir and Zailani, 2009; Balasubramanian, 2012; Mathiyazhagan, 2013, Ojo, 2014). The government essentially catalysis since their assistance may be both a motivator and an obstacle in implementing a green supply chain. The adoption of green projects is encouraged by the creation of relevant rules, standards, and legislation. Because GSCM necessitates a great deal of involvement with vendors, inventory control is proving to be a difficult task for several businesses (Mathiyazhagan et al., 2013). Green purchasing, for e.g. necessitates a supplier's adherence to ecological standards; hence, the supplier must be accountable and demonstrate a strong commitment to attaining GSCM.



**GSCM Challenges** (Source: Zulkefli, 2019)

According to Trigos (2007), the accessibility of green commodities on the market today is a problem that impedes the adoption of GSCM. There are a limited number of green products available in the building

business. Only just few things may be classified as "green" and "recyclable" (Varnas et al., 2009). Concrete and wood are some of the most famous green goods. Yet, because of the cost difference, the use of a green product is yet in its infancy. Further external difficulties involve a scarcity of appropriate environmental aspects such as training and growth, sustainable audits, and ISO 14001 certification (Balasubramaniam, 2012). Furthermore, due of the competing and unpredictable nature of the development sector, several organizations have found it difficult to implement green supply programs. In general, the construction industry is fiercely competitive amongst itself when it comes to proposing for projects and delivering dependable results. Considering the number of unknowns and ambiguities that building projects entail, the risk of project postponement, suspension, or termination, as well as being impacted by economic conditions, is quite high.

## **Methodology**

### **Research Problem**

The need for a balance between the economic development and environmental sustainability is a crucial aspect for the preservation of the global society. Nowadays, it is clear that the most prioritized goal of multiple businesses and industries is technological development and monetary profits. Even though this is a core element of conducting business, the concept of corporate social responsibility (CSR) is also equally necessary. This concept indicates the responsibility of the businesses and industries in forming a sustainable, uniformly progressive and mutually motivated global and social environment. In this regard, the need for environmental responsibility and accountability is highlighted for all businesses and industries. Therefore, a more holistic study is required to be done on the individual necessity of profitability economics via green supply chain management as well as environmental sustainability.

### **Research Aim**

This study thus aims to establish a universal business system which equally caters to economic as well as environmental responsibilities of an organization through the alignment of multifaceted goals of the organization in terms of profitability and CSR via green supply chain management.

### **Research Design**

This research work is designed in order to examine and evaluate the major role of green supply chain management to maintenance of economy and their corporate social responsibility for environmental sustainability. While discussing this, this research will also identify those areas that the corporate sector needs to focus on and construct a business system which ensure their social corporate responsibilities as well as economically beneficial to the country. Most of the organizations are working towards the sustainability of the environment and also promoting the concept of green economy and circular economy. But sometimes in order to sustainability development, company's economy is compromised and vice versa. Therefore, this study is designed in such a way that the important areas of corporate social responsibility to maintain environment sustainability such as balance business system, strategic initiatives by the corporate sectors and policy implications will be evaluated. The research design can be divided into two groups instance exploratory and conclusive. This study has adopted exploratory and conclusive research design.

### **Research Philosophy**

Research philosophy determines different ways through which the data is being collected analyzed and interpret (Schiavio et al., 2019). It is based on the source, nature, and development of knowledge (Onwuegbuzie, and Johnson, 2006; Fleming, and Zegwaard, 2018). The commonly used research philosophies are realism, positivism, Interpretivism, and pragmatism. This study has adopted Interpretivism which is widely adopted in qualitative studies. The interpretivism philosophy believes that reality is different layers and single phenomenon can be interpreted in multiple ways. It involves researchers to interpret the elements of the study hence; it can integrate with human interest into a study. It helps the investigator in observing and interpreting the critical information in appropriate fashion from different source however; researcher is unbiased and neutral and does not influence the findings of the study for desired outcomes (Collis, and Hussey, 2014).

### **Research Method**

The right choice of research method ensures the quality of study therefore; it is very important to select correct research method for further consideration of research process. The research method carries several research processes through which the whole study is conducted (Stolper et al., 2010). These research methods include quantitative, qualitative, and mixed research methods (Creswell, 2014). Qualitative and quantitative research methods are considered to be principal methodological approaches in research (Schiavio et al., 2019). Several researchers prefer to follow the quantitative research method because it is based on the analysis of theories and variables and statistical and mathematical techniques (Creswell, 2014). Using survey or published source, data is collected in numeric form whereas; statistical techniques are used to analyses the process. On the other hand, the qualitative data is providing insight of the information of the research agenda and very subjective. (Maxwell,

2008). It is often being represented in the form of words and texts (Lensvelt-Mulders, and Boeije, 2007; Leech et al., 2010). The qualitative data is collected from scientific journals, peer reviewed publications, interview transcripts, companies' data base, government policies and diary entries in textual and word form (Leech et al., 2010; Jebb et al., 2017; Maxwell, 2008). Furthermore, the third research method combines the qualitative and quantitative research method in a single scope of the study that is called mixed-method. However, this research study carries a mono-qualitative research method.

### **Research Approach**

The research approach is a scheme and course of action of the whole study and it is divided into deductive, inductive, and abductive approaches (Molina-Azorin, and Fetters, 2020). Through using the deductive approach, a researcher can measure the validity of assumptions by generating hypotheses from the existing theory (Maxwell, 2008). It starts from developing hypothesis on the basis of existing theories and proves the hypothesis. It supports to alter or modify existing theories on the basis of hypothesis testing. Most of quantitative research studies follow deductive approach because it allows using various statistical methods and procedures. On the other hand, inductive approach starts with collecting information and on the basis of observation conclusion will be drawn (Lensvelt-Mulders, and Boeije, 2007), thus it generates untested results or conclusions. However; the researcher does not know the domain of researcher therefore; it creates difficulties to construct a better hypothesis. Qualitative studies prefer to adopt inductive research approach (Saunders et al., 2012). Moreover; abductive reasoning or approach explains and develops the theoretical paradigm before, during and after research process (Maxwell, 2008). In abductive approach, the research process begin with surprising elements and research process is linked their explanation. Moreover; these surprising elements may emerge when a researcher encounters with some issues with and empirical phenomena that cannot be explained through existing theories. On the basis of above comparison, inductive research approach has been adopted due to Interpretivism research philosophy and qualitative nature of the study.

### **Research Strategy**

Research strategies defines overall plan of conducting research in terms of planning, implementing and monitoring. It gives a complete path of doing a specific task. There are several research strategies that are followed such as grounded theory, case study, interview or survey, ethnography, archival research study. The archival study research strategy has been adopted because it is more appropriate for this research study as it seeks to investigate an existing phenomenon within the different organizations in relation to Corporate Social Responsibility and Environmental sustainability. This research strategy enables researcher to use various published data from electronic source (Creswell, 2014). It provides a large range of activity through documents and textual material from published source. Moreover; it is applicable for the analysis of digital text including published reports, research articles and database.

### **Time Horizon**

The time horizon of the research approach is the approximation of the time span for the research conduction (Tashakkori, and Creswell, 2007). Usually, there are two types of time horizons such as cross-sectional and longitudinal (Stolper et al., 2010). In cross-sectional, data is gathered as one point in time for study (Schiavio et al., 2019), whereas; the longitudinal study follows the data collection from same sample repeatedly (Tashakkori, and Creswell, 2007). In this study, cross-sectional time horizon has been adopted.

### **Data Collection and Source**

The data collection method classifies the process which the researcher follows for gathering the data in a research process (Stolper et al., 2010). Whilst carrying a research approach, the researcher uses several tools and techniques for collecting the data (Stolper et al., 2010). On the contrary, the data collection process also identifies several methods that research follows whilst collecting the required data (Creswell, 2014; Molina-Azorin, and Fetters, 2020). The procedure of data collection could be categorized into two types that is primary data collection approach and secondary data collection approach. Therefore, primary data is collected directly from respondents through face-to-face interviews or survey questionnaire. On the other hand, secondary data is such data this is already been published in books, journals, and newspapers. However; the researcher also needs to consider that the selection of the appropriate set of data from relevant sites portray a fundamental position in maintaining the validity and reliability of the research (Lensvelt-Mulders, and Boeije, 2007). As, it has already been mentioned that this study has adopted archival research method, therefore secondary data collection method has been used. The relevant information has been collected from online sources that are related to supply chain management, green supply chain management, corporate social responsibility of organizations and environmental sustainability. The available information has been accessed through Google scholar, Research gate, Wiley online library, Web of Science and data from National and International environmental organizations websites and other electronic sources. This information has been gathered in the form of texts and words for systematic literature review.

### **Screening**

In the screening process, relevant documents, and studies have been scrutinized. In the next step, available abstract and summaries of the studies were analyzed on the basis of inclusion and exclusion criteria. After

abstract and summary analysis, most relevant studies related to corporate social responsibility, economy development and environmental sustainability have been reviewed. At initial level more than 100 studies have been selected on the basis of Title related to the concept of sustainability and Environment. Among these many were not accessible, few were of different languages, and many were high paid articles so those were not selected. After filtration process almost 40 studies were chosen on the basis of abstract and summary analysis and only those were retained which are related to CSR, economic sustainability and environmental sustainability. Next, on the basis on inclusion and exclusion criteria 25 studies were selected. Finally, after reading the complete 25 articles only 10 studies that were helpful to answer the research question were finalized for systematic review of literature.

### **3.10.2 Inclusion Criteria**

The fundamental intention of the research is to evaluate what is the right choice; Economy or Environment hence, all studies that are related to Environmental sustainability, corporate social responsibility have been considered. Moreover; all those studies that have been published in English language have been taken, furthermore, all studies and research paper that contain key words such as; CSR, ES, economy development, green economy, circular economy, sustainable development have been included. Furthermore; all studies that have been published in high impact factor and peer review journal have been selected. Besides, studies and research papers and other relevant information published have been included of systematic review of literature.

### **Exclusion Criteria**

On the basis of exclusion criteria, irrelevant studies and information have been excluded form analysis that provided more concentration towards refined outcomes. Hence; all studies that are not related to green supply chain management, corporate social responsibility of business sector and environmental sustainability, have been excluded. Moreover; all those studies that have not been published in English language, have not been considered. Furthermore; all studies and research papers that do not contain key words such as Environmental sustainability, corporate social responsibility, green economy, circular economy, and balance business system have been excluded. Furthermore; all studies that has not been published in high impact factor and peer review journal, have not been taken.

### **Data Analysis**

The selection of data analysis depends on qualitative and quantitative research methods. Several statistical techniques such as correlation, descriptive statistics, and frequency distribution are mostly applied to analyze data quantitatively whereas; in qualitative research systematic analysis, thematic analysis, content analysis, and are used. As I have selected qualitative research methodology, so the current research embrace Systematic Literature Review (SLR) that gathered information from selected litterers in a systematic manner. It provides the answers of pre-defined and particular research question. After selecting relevant studies, thematic analysis has been used. The selected approach indicates the procedure of analysis and reduction. It permits a researcher to systematize relevant themes and sub-themes. The selected themes then utilized as a value of evaluation throughout emendation of dataset. That are used as unit of analysis during re-reading of dataset (Bengtsson, 2016). It helps to arrange data in more comprehensive ways for observing trend that have been found across the data and compare these findings with the provision of relevant studies. There are six steps of thematic analysis which starts from familiarization with gathered information form literatures. Codes are generated that determine from labels to explore the content of the studies. After that themes are designed from these codes with combing several codes into single themes. These themes are reviewed for exact representation of finding. In the next phase, these are defined and named for developing precise meaning and discussed in detail.

### **Trustworthiness**

For ensuring trustworthiness, all selected studies have been taken form valid online publication sources from authentic websites. Moreover, systematic literature review considers secondary source of information that have also been published and cited by many other researchers. In addition, it is also very important to acknowledge that all studies have already undergone with peer review process that are in line with existing acceptable and scientifically approved methods. Moreover, conformability has ensured by the researcher that ensures that research bias should not affect the interpretation which is done on the basis of published source (Shenton, 2004). The dependability is ensured by the researcher by an outside individual who examines and reviews the process of research as well as analysis of data to ensure the result consistency and it might be used repeatedly (Kornbluh, 2015).

### **Ethical Consideration**

Before conducting this study, ethical approval has been taken from ethical committee however; secondary data source doesn't require either particular moral consideration; for the reason data and information used, are publically accessible and have adopted from the published sources. Moreover; for conducting systematic literature review, accurateness and impartiality of published scholarly data and precision of reference have been ensured. Additionally; surplus repeated and blurred generality of the findings have been neglected. Moreover; it has been ensured that views and reflection of original studies have not been altered and have been discussed in the same manner. Domain of applicability of systematic literature analysis has been considered to prevent

unintended extrapolation of review findings if it is not useable. Moreover; audience-appropriate and transparency have been also ensured while communicating the insight information that has been gained through review for maximizing and ethical impact of review findings (Suri, 2020).

## Results and Discussion

### Selected studies related to Green supply chain management and ES via CSR.

This section presents reviews of the selected studies related to organisations' responsibilities and Corporate Social Responsibility of organisations to ensure Profitability and Environment Sustainability.

**Table 1: Overview of the studies selected**

Author (s)	Objective	Research Method	Data Analysis
Gautam, 2014	To analyse the sustainable development indicators by using a System dynamic approach.	Qualitative	Theories and techniques of system thinking and system analysis to explore the dynamics of sustainable development.
Yuan et al., 2017	To explore and discuss the effects of environmental regulation on technological innovations and eco-efficiency and reveal the impact of external and internal factors on eco-efficiency.	Qualitative Cross-section	Stationary test, Unit root test (LLC, ADF-Fisher, PP-Fisher), and Econometric regression analysis
Millon, 2015	Worked on Corporate social responsibility and the challenge of sustainability.	Qualitative	Literature
DiSegni, 2012	The author statistically assessed the relationship between corporate characteristics, environmental contribution, and financial performance.	Quantitative	Data were collected from REUTER's financial markets along with Dow Jones and SAM database, and Regression analysis was performed.
Pomponi and Moncaster, 2017	To construct a theoretical framework in a built environment from a circular economy perspective.	Qualitative	Meta-analysis
Polasky et al., 2019	To describe the role of economics in analysing the environment and sustainable development.	Qualitative	Descriptive literature analysis
Orlitzky et al., 2011	To review theoretical approaches to strategic corporate social responsibility to enhance firm competitiveness and reputation.	Qualitative	Meta-analysis
Okuma, 2015	This theoretical research aimed to incorporate the issue of environmental growth into Regulation theory.	Quantitative	Econometric analysis, Kaleckian model.
Attah, 2010	To examine the concept of environmental sustainability with a focus on global efforts. And to assess efforts made to curb the impact of environmental degradation on the society by some developed and developing countries such as Switzerland, the United States of America and China.	Qualitative	Descriptive Literature analysis
Alshehhi, 2018	To study the impact of sustainability practices on corporate financial performance in relation to literature trends and propose future research potentials.	Qualitative	Meta-analysis

**Table 2: Key findings of the studies**

Author (s)	Conclusions/ Outcomes/ Key findings of the studies
Gautam, 2014	The key indicators used in the dynamic model created the ground for policymakers, practitioners, researchers, and academics to excel in exemplifying numerous socioeconomic and environmental indicators. Moreover, it serves as a policy tool to assess the behaviour of sustainable development indicators.
Yuan et al., 2017	<p>According to the findings, either environmental legislation can stimulate gains in technology inventiveness or eco-efficiency is dependent on the application of suitable ecological control. Likewise, different industries have different reactions to ecological standards.</p> <p>The current level of environmental regulation can significantly boost innovativeness in environmental solid businesses, but an extraordinarily high degree of ecological protection will stifle innovativeness. Furthermore, the existing degree of ecological law may considerably boost technical innovation in businesses with a moderate degree of eco-efficiency, but it has neglected to enable environmental development. It does, therefore, stifle substantially technical innovation in low-eco-efficiency businesses.</p>
David Millon, 2015	The study provides evidence that strategic CSR may indeed yield financial benefits for the corporations that adopt it and that it may also generate competitive advantages vis-a-vis corporations that do not. The potential appeal of this version of CSR is that it answers objections that are based on an assumed trade-off or zero-sum relationship between shareholders and non-shareholders' benefits. That can be important for corporations operating in institutional frameworks that prioritise shareholder interests over other stakeholders.
DiSegni, 2012	According to the findings, businesses that are assertive in assisting Social Responsibility and Environmental Sustainability (SRER corporations) have considerably greater revenue metrics than the marketplace and the industry, but not the overall market; possess reduced availability of funds than the industry and the related sector, and, unexpectedly, possess markedly elevated long term advantage.
Pomponi and Moncaster, 2017	The theoretical framework is based on six core components and recognises the importance of multidisciplinary research as well as the underside and leading activities in facilitating the transformation to 'circular' structures. The paradigm has shown to be a valuable tool for grouping current projects and highlighting lacking transdisciplinary connections. It also affected future study topics and provided an excellent beginning for contributing to the theoretical underpinnings of constructing research from inside the new approach of circular economic systems.
Polasky et al., 2019	<p>The article featured a cross-section of studies highlighting economists' accomplishments on significant environmental and sustainable development challenges. It has been claimed that there is an essential demand for decent quick incorporation of social and behavioural fields into the foundation of environmental sustainability and more fast incorporation of these disciplines into the core of sustainable development.</p> <p>This work integrates work from other natural and social disciplines into a policy-relevant approach. It highlights the vast possibilities for partnerships on sustainable development concerns across economists, environmentalists' biologists, geologists and other sociologists.</p>
Orlitzky et al., 2011	According to the findings, economic theories of strategic CSR have the most tremendous promise for furthering this field of study, while influential management theories should also be considered. The report also provided a research program for additional studies on strategic CSR and sustainable development.
Okuma, 2015	The scholars identify the socioeconomic structure as a three-fold replication of the economy, humans, and the environment.
Attah, 2010	Integrating regulations that interconnect the environment, the economy, and society can achieve a sustainable ecosystem and development. A variety of tactical efforts undertaken by certain developed nations have been highlighted, which other economies must follow in order to establish an equilibrium among ecological sustained growth through the unification of policies that link the environment, society, and economy.
Alshehhi, 2018	By reviewing the literature, the author discovered a strong consensus that sustainability has a favourable influence on business financial performance. He also indicated that market-based economic indicators were becoming more popular in the discourse.

## Discussion

The need for a balance between the economic development and environmental sustainability is a crucial aspect for the preservation of the global society. Nowadays, it is clear that the most prioritized goal of multiple businesses and industries is technological development and monetary profits. Even though this is a core element of conducting business, the concept of corporate social responsibility (CSR) is also equally necessary. This concept indicates the responsibility of the businesses and industries in forming a sustainable, uniformly progressive and mutually motivated global and social environment. In this regard, the need for environmental responsibility and accountability is highlighted for all businesses and industries. On the other hand, some businesses are observed to focus more towards environmental sustainability which often negatively impacts the overall profitability of a company. Therefore, equal input of CSR and business management is required. Such a perspective instigates the requirement of a universal business system which successfully aligns economic development and environmental sustainability.

As per previous business studies, it is evident that the focus of organisations is either towards profitability through technological development, or CSR through environmental sustainability strategizing. Here, a choice is required; whether the organisation is required to generate a more profitable business system for organisational development, or if environmental sustainability is the main company goal. A singular perspective towards such a futuristic development, while ensuring successful practical interpretation, may also hinder its counterpart. For instance, a singular focus upon environmental sustainability may entail the use of such measures, strategies and tools which could be expensive. Contrastingly, a more profit-oriented approach may provide room for the organisation to neglect its environmental imprint and CSR. Therefore, a more holistic study is required to be done on the individual necessity of profitability economics as well as environmental sustainability, and how these two objectives could be simultaneously achieved through a universal business system.

Companies should focus on their CSR commitment to a social cause in a variety of ways, such as contributing finances, in-kind donations, or other business resources such as marketing experience, human capital (e.g. employee volunteerism), and R&D capabilities committed to a cause. The volume of input, the longevity of the relationship, and the regularity of information are all factors in commitment. A firm might opt to concentrate on one or more components of its social responsibility.

Furthermore, rather than concentrating on the source side of its engagement in a social purpose, a firm might concentrate on the output side of its CSR activity, i.e., the sociological effect, or the real gains that have accumulated (or will accrue) to the social cause's intended population. For instance, according to a news release issued by the National Institute of Child Health and Human Development in 1999, business funding for the 'Back to Sleep' project in the battle against Sudden Infant Death Syndrome saved the lives of around 3500 American new born by 2002. Likewise, Pampers has started a social effort called "1 Pack = 1 Vaccine" in collaboration with UNICEF to provide tetanus vaccines to pregnant mothers in impoverished nations, saving their infants from a sickness known as neonatal tetanus. The slogan of this programme effectively reflects the program's societal impact as well as the influence of consumers purchasing Pampers' socially responsible goods. Because, as previous research has demonstrated, CSR communication should be truthful and avoid the perception of 'bragging,' emphasising a company's CSR commitment or the societal impact of its CSR initiative is a successful communication technique (Pomponi and Moncaster, 2017; Attah, 2010; Du et al., 2009).

Additionally, a corporation's CSR dedication and social effect may be used to determine its underlying CSR motivations. Lengthier pledges were more likely to be perceived as motivated by a real interest in boosting societal/community welfare. In contrast, shortened efforts were more likely to be seen as a manner of manipulating the subject for the sake of income. Similarly, Du et al. (2009) found favourable correlations between a firm's CSR initiative's perceived social effect and customers' intrinsic inferences, as well as consumers' engagement activities toward the brand.

A business can publicise its CSR action plans through formal papers such as a yearly corporate social responsibility fact sheet or media launches and dedicating a segment of its official corporate website to CSR. It can also publicise its CSR measures through Television commercials, journal or outdoor advertising campaigns, and packaging design. Companies employ conventional marketing methods to publicise their CSR initiatives in addition to corporate responsibility reporting and allocating a part of their websites to CSR. Diet Coke, for example, has been airing TV advertisements promoting its CSR campaign to improve women's awareness of heart disease, and the company has also established a website to express the business's commitment to the cause and numerous opportunities for customers to get engaged. Product packaging may also be used to communicate a company's CSR activities. Stony field Farm, for example, uses the lids of its 6-oz cup yoghurt to communicate to stakeholders the company's engagement in health and environmental programmes.

The vast and growing numbers of external CSR communicators (e.g. media, consumers, monitoring organisations, and consumer forums/blogs) who are not totally controlled by the corporation provide a counterbalance to such company-dominated CSR communication channels. A firm can manage the substance of CSR communication through its own corporate communication channels (for example, Wal-Mart is an



environmental steward). Still, it typically has little influence over how its CSR record is represented in the media (e.g. Wal-Mart provides insufficient healthcare for its employees). Likewise, stakeholders of the company's value chain (e.g., workers, channel members) have more power over the content of CSR communication than individuals who are not part of the value chain (e.g. monitoring group, customers). In conclusion, there are several CSR communication routes, each of which is likely to differ in the degree to which it is within the company's control (Polasky et al., 2019).

## **Conclusion**

Businesses can not only stimulate positive stakeholder attitudes and more assertive assistance behaviours (e.g., acquisition, looking for employment, continuing to invest in the corporation) by contributing to social responsibility (CSR) actions, but they can also, in the big scheme of things, construct an image of the organisation, enhance stakeholder–company connections, and enhance stakeholders' advocacy behaviours (Du et al., 2010).

The present degree of ecological control can only encourage innovativeness in businesses with medium and high eco-efficiency. Still, it cannot promote synchronized economic and environmental growth in the production industry. While environmental legislation has fostered economic and social development, technological progress has not favored energy conservation and environmental preservation, using many resources and harming the ecosystem. Appropriate ecological legislation may stimulate gains in technological advancement and eco-efficiency in the industrial sector. The impacts of ecological legislation on technological advances and eco-efficiency vary significantly between industries.

Companies devoted to sustainable development, produce much greater earnings and share prices, implying that building a business attitude of sustainability and longevity may be a foundation of economic benefit for an organization in the extended term. Orlitzky (2003) and Millon (2015). Strategic CSR's sole focus on corporate costs and benefits is a conceptual limitation built into the model.

Studies support the concept that sustainability is a firm's decision to thrive in a dynamic and complex globalized economy by identifying and regulating present and foreseeable financial, environmental, and social benefits and threats. DiSegni also gives this vision, 2012 that, Companies that address the three factors (profitability measures, liquidity and financial leverage and higher involvement of managers with employees) via creativity, reliability, and efficiency improve their potential to produce protracted investor worth. Adopting viable practices is a long-term structured method that incorporates economic, ecological, and societal aspects into standard economic operations.

Because CSR practices reflect a business's identity, engaging in humanitarian activities allows a firm to not only produce favorable stakeholder perceptions and behavior (e.g., buying, looking for employment, investing in the company), but also, in the long term, to establish company image, deepen stakeholder–company connections, and increase users' negotiating agreements for the business (e.g. word-of-mouth, employee organizational commitment and citizenship behavior). Even so, stakeholders' lack of recognition of and skepticism against enterprises' CSR operations are significant impediments to businesses' efforts to maximize corporate outcomes from their Invested capital, indicating an immediate demand for both academics and professionals to gain a profound insight into how to interact CSR to interested parties more efficaciously. Communication about corporate social responsibility is a complex subject. Despite shareholders professing to be interested in the good actions of the firms with whom they contact, they might quickly become suspicious of ulterior reasons when corporations advertise their CSR activities. If stakeholders grow skeptical and see mostly extrinsic intentions in corporations' social endeavors, corporate social responsibility communication can have a pushback impact. As a result, overcoming stakeholder mistrust and generating favorable CSR inferences is a significant problem of CSR communication.

## **Suggestions**

To ensure environmental economic viability, renewable resources should not be devoured in abundances larger than the frequency of renewal; pollution should not surpass the atmosphere's standard limit, and the production of renewable alternative solutions must precede exhaustible resource deprivation.

The state should encourage the production sector to priorities the development of energy-saving techniques through fiscal incentives, tax breaks, and other ways and undertake technological innovation linked to green production technology.

Companies need to adopt the concept of strategic CSR. 'Strategic' CSR is the idea that regard for non-shareholders' interests can be justified if it promotes shareholders' financial interests. Strategic CSR may indeed yield economic benefits for the corporations that adopt it and that it may also generate competitive advantages vis-a-vis corporations that do not. The potential appeal of this version of CSR is that it answers objections that are based on an assumed trade-off or zero-sum relationship between shareholders' and non-shareholders'

benefits. That can be important for corporations operating in institutional frameworks that priorities shareholder interests over other stakeholders.

### Future Directions

Though this paper tried to proceed with both theoretical and empirical analysis, some critical areas are not adequately dealt with and are left to be addressed in future researches. Works on historical analysis of various countries as well as comparative analysis among different economies should be needed to deepen the understanding of CSR and ES. Appropriate learning might aid in the development of people's capabilities to transcend psychological barriers to long-term commitment. Competent economics, enterprise, and finance training aim to prepare students to be future creators of long-term worth for business and the community. Experts currently functioning in government and industry can benefit from appropriate training as well. More study is needed to identify and define proper corporate financial measurements and how they correspond to sustainable strategies. In order to precisely establish the combined influence of all dimensions of sustainability, it is also necessary to investigate the impact of overall sustainability. Therefore, research should be done to solidify the conflict among sustainable development components and to synthesise a global knowledge of business sustainability in the context of constructing a balanced universal business system.

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