

How Stakeholder Pressure Influence Corporate Sustainability, and Financial Performance in Manufacturing Industries of Pakistan: The Mediatory Role of Sustainable Supply Chain Management

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Abstract

It is of great importance to gain a better understanding of the impact of external stakeholder groups on an organization's supply chain management strategies and practices. The greater challenge is to know how the two constructs affects organization's sustainability and performance. This study aims to investigate the relationship between stakeholder pressure (SP), sustainable supply chain management (SSCM), corporate sustainability performance (CSP) & financial performance (FP). For this we proposed a theoretical framework, modifying Wolf (2014) model, to incorporate the mediating role of sustainable SCM. Stakeholder pressure is captured by environment issues, and social supply chain issues. Sustainable SCM was measured by waste reduction (WR), green purchasing (GP) and social supply chain standards (SSCS). Empirical validity was established by conducting a survey using close ended questionnaire. Data was collected from 310 employees and analyzed using confirmatory factor analysis and structured equation modeling. Findings shows that

environmental issues have significant effect on CSP, FP & SSCM, sustainable supply chain management (SSCM) except green purchasing (GP) has significant effect on CSP, FP hence green purchasing has insignificant results. Social supply chain issues have not a significant effect on CSP, FP and waste reduction (WR). There is a mediating effect of SSCM on environmental issues leads to CSP & FP, but not on supply chain issues. This study will add to the existing knowledge of sustainability in by different firms of a developing country like Pakistan. This will also help in understanding that how stakeholder's pressure effects the reputation of organizations in result firms mount their strategies and tactics, and can better understand that what measures they should take for environmental and social standards by focusing on employee safety, suppliers' engagement, and safety programs.

Keywords: stakeholder pressure (SP), sustainable supply chain management (SSCM), corporate sustainability performance (CSP) & financial performance (FP), green purchasing (GP), waste reduction (WR), sustainable supply chain standards (SSCS), and resource dependency theory

1. Introduction

1.1 Background to the Study

Companies act upon Sustainable development can generate significance as it brings saving in national budget, meet the needs of consumers, save natural resources for future generation, helps in control of climate change, can able to save energy to meet the needs of new projects, increase in return on assets and equity, provide ways to retrofit existing developments to turn them into environment friendly facilities and projects, provision of purified water and sanitation, quality education and training, sustainable industrialization, less emission of harmful gases generated from production or machineries, right disposal of wastes, recycling, reuse and recovery of waste, consumers will show high interest in sustainable goods therefore firms should try to create a tight connection between sustainable pillars. According to (Porter & Linde, 1995) sustainable purchasing gives potential benefits of more efficient and effective natural resources, long term efficiency savings, reduction of harmful impact of pollution and waste, minimize the impacts of hazardous substances on human health and environment, improve in productivity and can encourage innovation.

As sustainable supply chain management refers to create the chain & whole production free from affect on environment, social & economic conditions of a firm & this could be possible by applying sustainable practices. These measures of sustainability help in selection and appraisal of firm's supplier in order to maintain sustainability therefore non-governmental organizations exerts pressure on firms.

Consumer goods contains a significant ingredient Palm oil which is being used in many of the goods such as chocolate, cleaning products, cosmetics, pharmaceutical hence increasing the demand of palm oil nationally & internationally, therefore creating rainforest deforestation. Due to this fact the companies who are non-governmental such as Green Peace exerts pressure in order to stop the procurement of non-sustainable palm oil (2010, the economist). As for example in 2009 Green Peace produced a short documentary regarding Kit-Kat chocolate bars on YouTube, the end of that short documentary focused to stop using Nestle products, the message was to highlight the purpose that organizations should use palm oil from sustainable sources. Nestle case is one of the prominent example that stakeholders putting out forceful act on organizations to encourage the use of palm oil to maintain sustainability not only within their boundaries but with respect to the whole supply chain. Such examples give a broad & healthier comprehension of consequences of external stakeholder groups on the organization's entire supply chain strategies.

The previous research which was took in this study has a central view but was remain questionable and it was the reaction of the pressure exerted from outside sources (stakeholders), non-government organizations like Greenpeace as mentioned in introduction phase example Nestle. Stakeholders exerted pressure on Nestle in order to avoid procurement of oil from unsustainable sources. Therefore, central view suggests that firms react against the pressure of outside sources by selecting strategies, tactics and practices. In result of this many innovative solutions, resources, more better strategies and capabilities arises (e.g., Reuter et al., 2010) ultimately creates competitive edge (e.g., Parmigiani et al., 2011; Zhu et

al., 2012; vachon & Klassen, 2008). Thus, research suggests that sustainable supply chain management not only achieve stakeholder's belief but also gain other benefits (Sarkis et al., 2010; Sharma and Henriques 2005)

At the extent of organization a common understanding suggests that stakeholders run corporate sustainability strategies. (Darnall et al., 2010) & the level of stakeholder effect on sustainability strategies be contingent on the ability of that certain stakeholder group (Lonex & Esley, 2006; Sadowsky & Henriques, 1999; Mitchell et al., 1997), At the point of supply chain the role & effect of external stakeholders finds out more complex. Sarkis and Zhu (2007) explains that bullying pressure from governments, customers, competitors bring advantage by adopting the practices of sustainable supply chain management which arised by understanding social & environmental problems, therefore this coercion guides the production of valuable & unique solutions to environmental & social problems.

Stakeholder pressure groups are external stakeholders of a company who exerts pressure on firms to influence them of doing business in specific manner which do not harm society in any case. From the era of industrial revolution till a specific period the only aim of businesses is to spent investments only in profit generating activities nevertheless gives a competitive edge, not create harmful effects on society either by environmentally or socially. Therefore, a huge importance took birth on concept of quality of life, which gain importance towards social responsibility. As the concept of social responsibility raised the straight yield of stakeholder has come up with so much progress. The concept of stakeholder pressure group took birth who hits business progress generated by its goals or is effected by its goals (Freeman, 1994). He distinguish the group of stakeholder in to two different categories. One is internal stakeholders who are the employees, managers and owners while the second is external stakeholders who are suppliers, customers, society, competitors and non-governmental organizations.

Different pressure groups partnering towards their shared goals and providing numerous benefits to society by exerting pressure on organizations to meet planet and people sustainability which can bring positive change in economic performance of firm and a nation at whole. As these groups contribute to make societies secure, share part in stable operating environments, encourage towards health, safety and reduction of diseases, empower marginalized groups and reduce inequality, alleviate poverty by creating more jobs and many more. They can recruit experts and highly motivated staff with least restrictions from governments and showing a major part in context of sustainable development by doing campaigns against firms ranging from hazardous waste to global ban on environment and social effect activities either in terms of resources, processes, and employees.

As these stakeholders at the time of origin were focusing on governments and inter-governmental processes but now and then they have changed with the retreat of state and regulatory activities and started to fix their sight towards powerful corporations who can be the rival of entire nation in terms of their benefits. Therefore, pressure of these groups is helping to bring attention on sustainable development not only on multinationals internal shareholders but brought focus of external shareholders as well. (Hui, Chan, & pin, 2001)

identified in their study that the internal stakeholders are the most significant influencers clearing that customers and supply chain are the main drivers. Hence secondary stakeholders do not have direct contractual relationship with firms (Esley & Lenox, 2006) they apply different influencing tactics. (Marshall et al., 2010) primary stakeholders can pressure to adopt environmental practices on behalf of secondary stakeholders, therefore stakeholder pressure groups started to change them lately by making a bond with internal shareholders and influence firms through public demonstration on streets, designing of campaigns, boycott of products and services as in the case of Nestle. Hence the continuous partnership with primary stakeholders, firms respect the demands of stakeholder pressure groups (Van der Lann et al., 2008). According to Freeman, the stronger relationship with these groups' leads to the mutual goals as argues in stakeholder theory that firms should manage the demands of stakeholders in best possible manner.

By continuously considering the attention of stakeholders companies now trying to adopt green supply chain management practices and analyzing the social concerns (Longoni & Cagliano, 2018). Subsequently glad to stakeholder activities that management is gaining competitive advantage in numerous aspects (Endrikat et al., 2014). Waste reduction strategies work towards CSP saves money and improve financial performance of a firm hence showing a positive effect on both the constructs. Working on social standards deciding on right training campaigns for employees, health and safety measures, incentives plans keep a company's supply chain sustainable, if all these constructs shows that, stakeholder pressure is a driver of SSCM which results in better CSP. Hence there is need of empirical study in Pakistani context that would help to understand how stakeholder pressure can affect corporate sustainability performance and financial performance by having a mediating role of sustainable supply chain management.

1.2 Problem Statement

There is a bundle of problems faced by firms to not taking actions on eco-friendly and social aspects. Firms are in ambiguity for business sustainability as there is an availability of numerous metrics which are claiming to measure sustainability, as different metrics serve different purposes some of them focus on product while other focus on organizations, therefore deciding of goals and selecting of right strategy for a specific problem is much harder to manage. Firms are facing difficulties in respect of what sustainability initiatives they should take because most of the time it affect people and society at macro level. In addition of it their results are not obvious at the very first time. Therefore, business needs proper guidance to set benchmarks of improvement.

Secondly consumers do not add sustainability into their purchase decisions which is making difficult for firms to rate sustainability in respect of product characteristics eventually firms are in problem to produce those goods and services which can meet customer's needs as well as maintain sustainability either by using cheap materials or by renewable production.

Thirdly it is also unclear for firms and their managers that how to encourage employees to undertake sustainability initiatives and is hard to identify which incentive plan should add with which employee as one good employee attract other and how to include sustainability

performance targets into employee incentive.

Fourthly sustainability is still does not fit neatly into the business case as firms and managers are willing to know the right returns on investments of it, what could be short and long term methods to assess them, how should they value those investments in their decision making and in framework of finance executives, as sustainability is a long term project and hard to evaluate hence firms face to lose their short term projects which can be easily evaluated and managed.

Fifthly firms are facing difficulties in differentiating between most important opportunities and threats, therefore which risk they should prioritize and make strategies to deal with them with stakeholders. Firms are facing problems in communication of their good deeds credibly and stop conveying misleading information about them by others. On the other side no common set of rules by firms has been decided for sustainable sourcing as it is hard to identify sustainable suppliers and the knowledge for sustainable sourcing is still not clear otherwise firms has a set of practices to benchmark suppliers in order to manage their supply chains. Investing on training, health and safety programs for firms, getting environment friendly certifications, machineries, sustainable packaging, sustainable suppliers, avoiding of tax imposed by government, stopping of threats from non-government organizations and maintaining goodwill of firms all these practices require right knowledge and investments which are not available in right amount.

1.3 Gap Analysis

In literature, the assurance of better environmental, social practices & influence of stakeholder's are prominently defined (Berman et al., 1999; Agle et al., 1999; Sharma & Vedenburg, 1998; Buysse & Verbeke, 2003). Nevertheless, little focus has been given to the bonding between two variables, one is stakeholder pressure & other is sustainable supply chain management. As well as little understanding about the two variables, how they contribute towards organizational sustainability.

Wolf (2014) assumes that SSCM can contribute positively to the reputation of an organization as a "good citizen" and, thereby, counter the impression that external stakeholder pressure is the only driver of SSCM. The study draws on Resource Dependence Theory in analyzing the three competing models of the potential stakeholder, SSCM and the corporate sustainability performance relationship. Findings suggest that stakeholder pressure and SSCM both contribute to an organization's sustainability performance. This study also visualize a complementing effect of SSCM between stakeholder pressure and sustainability. However, previous findings concluded that SP does not have a moderating effect on SSCM-CSP. The effect that SSCM effect on CSP vanish when SP is high (Delmas, 2001; Bjorklund, 2011; Del-mas & monitel, 2008; Gonzalez-Benito & Gonzalez-Benito, 2006; Lee & Klassen, 2008; large & Gimenez, 2011; Parmigiani et al., 2011). This study proposed a theoretical framework, modifying Wolf (2014) model, to incorporate the mediating role of sustainable SCM. This study is first of its kind to propose a mediating effect of SSCM that hypothesize stakeholders pressure enforcing SSCM procedures that leads to sustainable performance. Hence this research focused on identifying how stakeholder pressure affect corporate

sustainability & financial performance through sustainable supply chain management. Moreover, waste reduction which is an important factor of SSCM was not focused there.

Also, it has already been found the relationship of these variables in order to check corporate sustainability performance but what could be the impact on financial performance due to these measures is still not found. Hence, a short-term dimension measured by financial performance is also included in this framework to assess both long run as well as short run outcomes of SSCM. Above all, no such research was done in Pakistan. Hence the relationship between the sustainability measures is considered in the new study keeping in view the industries of Pakistan.

1.4 Purpose of Study/Research Objective

The main purpose of this study is to measure the relationship between stakeholder pressure (SP), sustainable supply chain management (SSCM), corporate sustainability performance (CSP) & financial performance (FP). The direct effect of (SP) and (SSCM) on financial performance (FP) & corporate sustainability performance (CSP) and as well as the indirect effect of stakeholder pressure (SHP), corporate sustainability performance (CSP) and financial performance (FP) mediated by sustainable supply chain management SSCM. Stakeholder pressure is captured by environment issues, and social supply chain issues. Sustainable SCM was measured by waste reduction (WR), green purchasing (GP) and social supply chain standards (SSCS).

Empirical support for this hypothesis is done by attaining data through questionnaire filling from different employees of different firms of Pakistan & identify that between stakeholder pressure & sustainable supply chain have a direct & positive relationship.

1.5 Research Question

- 1) Does sustainable supply change management have a direct effect on corporate sustainability performance?
- 2) Does sustainable supply change management have a direct effect on financial performance of a firm?
- 3) Does stakeholder pressure have a direct effect on corporate sustainability performance?
- 4) Does stakeholder pressure have a direct impact on financial performance of a firm?
- 5) What extent stakeholder pressure determine sustainable supply chain management which in turn bring corporate & financial performance of firm (a mediating effect)?

1.6 Significance

This study will add to the existing knowledge of sustainability enjoyed by different firms of a developing country like Pakistan and understand stakeholder pressure mediated by sustainable supply chain management strategies ultimately results in corporate sustainability performance & financial performance of a firm. Firms strategies and decisions are propel by the coercive pressure from stakeholders, customers, nongovernmental organizations which

results in better & much workable new solutions to drive healthier economic, social & environmental conditions. This research can be used by students, researchers for academic purposes & can also use by firms as a reference point for designing of strategies, practices in order to gain sustainability. Different organizations will be able to identify how stakeholder pressure will affect sustainable supply chain management & what strategies they should formulate in order to reach at a better performance point of corporate sustainability and profits. This study could help organizations to select strategies and solution to bring sustainability in their supply chain how can these strategies and tactics can help to improve CSP & FP.

2. Literature Review

Chin et al. (2015) investigated the relationship between green supply chain management practices and identified that product design has a significant positive relationship with corporate sustainability performance. The sample size of 400 was used and the findings suggests that environment deliberate product design incorporates eco-friendly raw materials which provides zero impact life cycle of a product, duality, resilience and minimal environmental impacts in order to meet sustainability pillars.

(Benito 2008) investigated the effect of manufacturing pro-activity on environmental management. A sample of 184 companies was used. Finding suggests that environmental pro-activity is a differentiating characteristic of company where product design plays a differentiated role. It is showing that corporate sustainability performance can be achieved by incorporation of social issues of supply chain in manufacturing product by applying green practices, waste reduction strategies which will eventually meet the standards of social sustainability and corporate sustainability performance.

Ahmed et al. (2018) investigated the relationship criteria between sustainable product development and organizational performance. A sample of 273 suppliers in Malaysia was used. Finding suggests that in product design contributing of sustainable pillars leads to organization sustainability performance and meet satisfaction of interested parties.

Whooley (2004) identified in a study of CSR identified that satisfaction of employees is a key driver of sustainability in supply chain. Benefits in workplace, training and development, health and safety, compensation and benefits, equality and retirement funds improve moral of employees and (Jones et al., 2007) organization who think about the deprived and make efforts for their better standards will meet competitiveness and better brand image eventually achieve sustainability and better economic performance.

M. Ajmal et al. (2018) in conceptualizing the social sustainability in business world identified that the most important problem faced by firms is the addition of sustainability practices into the core functions of business. Rethinking, redesigning and development of business practices in a sustainable way to leap forward. Finding suggests that economic and environment sustainability can be attain altogether by having core social factors which are health, safety, training, education, equality on equal basis within an organization. Geibler et al. (2006) suggests that health and safety at work place is the core aspect of social responsibility.

On the other side, Stanwick and Stanwick (1998) examine the relationship between the corporate social performance and the financial performance of an organization between 1987 and 1992. The results of the study shows a significant positive correlation between CSP and profitability for all six years of the study. This study supports the view that profitability of the firm allows and/or encourages managers to implement programs that increase the level of corporate social responsibility

Stanwick (1998) investigated that corporate social performance and financial performance of firm are correlated to each other there is a significant positive relationship between two constructs that firm's economic success encourages managers to implement programs that can increase the level of CSR. Hence it concludes that to keep the care of social sustainability firms economic performance will increase.

Zhu et al. (2008) investigated an empirical examination of green supply chain management practices his result suggest that implementation of GSCM practices should be an integration of eco-design practices, green purchasing, waste reduction this view identified that green supply chain management practices shows an unambiguous role in attaining sustainability in supply chain to gain sustainable performance of firm eventually meets the standards of healthy environment and better economic performance.

Liu and Zhao (2008) identified the effects of green procurement in Chinese manufacturing industry and find that sustainable purchasing can enhance operational performance hence cost savings practices can lead to better operational performance (Green et al., 2012). Also identified that product based green procurement reduces the cost of production (Green et al., 1996).

Above studies suggests that environment, social and economic sustainability achieve by eco-friendly products or services through green purchasing, addressing product issues through eco-design and understanding well the corporate social responsibility makes environment sustainable have less harmful effects, minimal pollution and air emission and committed personnel attain better corporate sustainability and financial performance.

3. Theoretical Framework

3.1 Corporate Sustainability and Financial Performance

In order to improve the relationship with the social and environmental aspects CSP is the one for which strategies ensured by organization and shows that CSP is an important part of organization's actions & decisions which includes those exists in supply chain (Surroca et al., 2010). An altogether assessment of organization social & environmental performance.

Financial performance is the economic measure of sustainability which is also an altogether assessment of social & environmental performance ultimately results in better economic performance.

3.2 Stakeholder Pressure

Stakeholder pressure addresses the magnitude of responsibility cognize by organizations for

the conclusion regarding product design, distribution, purchasing, production (Primigiani et al., 2011).

In sustainable supply chain management the stakeholder pressure explains the situation in which a company is declared responsible related to its actions & decisions of product design, sourcing, distribution, production to stakeholders (Parmigiani et al., 2011). By the help of SSCM, organization make better sustainable measures with in their supply chain to improve stakeholder pressure. To further enlighten their relationship between the variables the resource dependency theory explain below.

3.2.1 Social & Environmental Supply Chain Issues

These are the issues involves in supply chain & measures position of company between stakeholders. It identifies at what degree these issues effecting an individual & find out the steps of prevention & procedures to control. Social issues in supply chain are related to product related which do not affect human safety, welfare and community development.

(a) Product related issues belongs to the characteristics that do not meet the specifications of being social and environmental therefore non-governmental organizations exerts pressure on firms to adopt sustainability.

- Product life cycle: products whose life complete with zero impact on society and environment from the collection of raw material, manufacture, distribution until elimination.
- Duality: products should have dual focus that is human and environment from the time of extraction, creation of product by workers till its disposal.
- Health: material of product that do not harm human health such as allergies.
- Responsible source: employees who manufacture products should be safe and healthy and are unlikely to be injured or attain illness.
- Environmental impact: Product or its material has low environmental impact over its entire life
- Economical: products with low cost have high negative impacts that it will harm consumers or society as whole.
- Efficient: consumption of low resources as compare to its value that do not harm planet and people but gives benefit of low cost which could be easy to purchase.
- Quality of life: product or material should please to people, it should not contain any material whose extraction effect life of labor.
- Resilience: products should contain resilient materials to bear any harm in stress.
- Reusable: materials or products that can be reusable ultimately creates low waste.

Environment issues from supply chain includes toxic waste, water pollution, loss of biodiversity or ecosystem, deforestation, harmful air emission, greenhouse gas emissions and

excess of energy use cause deterioration in ecological balance that leads governments, communities, individuals to take precautions against them (Walker et al., 2008).

- (a) Toxic waste is an undesired material which is a poisonous byproduct created during manufacturing, construction, farming, in hospitals. It contains metals, harmful radiations and is creating serious global issues and are critical to dispose out.
- (b) Water pollution is the impurity in water created by industrial waste, mining activities, marine dumping, chemical fertilizers, accidental oil leakages, global warming and many more.
- (c) Loss of bio-diversity is a decline in species (plant and animals) imposing significant effects on human health. It causes by the destruction of habitats through deforestation, global warming.
- (d) Deforestation is cutting of forests or trees for a non-forests use and compromising sustainability of the environment. It has severe harmful effects on climate, soil erosion, and greenhouse gases in atmosphere.
- (e) Greenhouse gas emission is a gaseous compound that has an ability to absorb radiations and trap it in atmosphere ultimately creates global warming.

As purchasing is a very starting step in creating a value chain and its whole success is the combination of environmental efforts, purchasing activities and environmental aim of an organization (Carter et al., 2000).

As firms have constant pressure from outside sources therefore firms go towards sustainable purchasing and put impact on suppliers to remain sustainable ultimately increase the CSP. When tier one supplier, tier two supplier maintain the environment practices ultimately firm get sustainable resources which contain high quality, can be reusable, have long lasting characteristics, less toxic and less harmful materials. Firms who apply it will also be able to differentiate themselves from its rival on behalf of goodwill due to maintenance of sustainability in business activities as well as gain in sales and profits. Therefore, green purchasing has a significant effect on corporate sustainability performance (Molina-Azorin et al., 2009). Taking steps on environment sustainability will ultimately saves health, safety of workers anticipate fulfilling of social standards.

Hart (1995) suggests that green purchasing will affect the economic performance significantly as per resource-based view. Schmidt et al. (2017) explained a way that businesses can achieve better financial performance by increasing corporate goodwill through applying a practice of green supply chain management which is green purchasing. Other studies also declared that GP has a positive effect on FP (Carter et al., 2000; Rao & Holt, 2005; Zhu & Sarkis, 2004; tang et al., 2012). It means that when firms invest on purchasing high quality products which can reusable in future as well having no harmful or toxic characteristics will affect financial performance negatively in short run this is just because of heavy investments but in long run it will satisfy needs of outside pressure sources and consumers eventually increase in sales, cost savings due to reusable factor and enhance

profits of firms by having better ROA and ROE. Hence clearing that by adopting green practices firms can achieve environmental sustainability and make operations sustainable which eventually improve operational performance and results in economic performance.

H01: There is a significant relationship between environmental issues and corporate sustainability performance.

H02: There is a significant relationship between environmental issues and financial performance.

H03: There is a significant relationship between environmental issues and green procurement.

H04: There is a significant relationship between environmental issues and social supply chain standards.

H06: There is a significant relationship between green procurement and corporate sustainability performance.

H07: There is a significant relationship between green procurement and financial performance.

3.3 Sustainable Supply Chain Management

Sustainable development is defined as in order to meet the requirements of the present or current peer group without creating any harm to the capacity of the future generation (Environment & development world commission, 1987) sustainable development is consist of three measures listed as economic, social and environmental.

It is the deliberate & unambiguous amalgamation & gaining of an organization's social, economic & environmental purposes in coordination systematically of Interorganizational business processes & this coordination is done in organized manner in order to improve the long-term sustainable performance of the company as a whole as well as its supply chain (Rogers & Carter, 2008). Creating the betterment in the upstream social & environmental conditions to draw incentive procedures happen by the focal organization done by creating rational capabilities which helps in achieving the above sustainable measures purposes (Corbett & klassen, 2006; Parmigiani et al., 2011).

This measure analyzed by three elements which are social supply chain standards, green procurement, waste reduction through them social & environmental issues in upstream supply chain can be bitterly design & improve by focal organizations. Social supply chain standards addresses the social issues. Green procurement identify policies to environmental issues which can stick suppliers to follow environmental standards. The organizations are adhere to identify suppliers who have the lower environmental impacts of their products & services.

Social supply chain leads to protect the social rights within a firm by assuring that right material has been sourced. As with the span of time new technologies, innovative products are introducing and are giving competitive advantage. These global changes led companies around the world to incorporate social responsibility. Safety and health is a major area of

CSR not only of employees but customers as well therefore green supply chain practices creates more positive image in eyes of stakeholders, society, customers and personnel by decreasing societal damages. Positive image is highly needed for both customers and personnel (Hoffman, 2001). Testa and Iraldo (2010) and Xie and Breen (2012) green practices can improve brand image, creates good relation with customers and motivates employees, therefore by improving product quality, life cycle, reliability, durability, resilience for customers, personnel and society by keeping in view the health, safety standards through green procurement creates significant relationship. Interest in social issues eventually give rise in practicing of supply chain standards therefore personnel and consumers feel own by firms and start being well committed for good wealth of organization lead to anticipation in attaining sustainability of firm.

H08: There is a significant relationship between sustainable supply chain issues and corporate sustainability performance.

H09: There is a significant relationship between sustainable supply chain issues and financial performance.

H010: There is a significant relationship between sustainable supply chain issues and green procurement.

H011: There is a significant relationship between sustainable supply chain issues and social supply chain standards

On the other hand, right strategies to solve product related issues in supply chain can lead to reduce cost and waste. The reduction in waste helps in improving company's products. Most of the firms identify their product design and rethink that where the use of raw material can be reduced or how can expensive materials can be replaced. Efficient operations through consumption of limited or reusable resources implies low cost hence social supply chain issues has a significant relationship with waste reduction.

H012: There is a significant relationship between sustainable supply chain issues and waste reduction.

3.3.1 Green Procurement

For the procurement purpose decision making by the organizations to integrate the policy related to environment aspects highlighting main related issue, which is the product related which addresses to carry out the requirement of selecting the organization fulfilling minimum standards of products & services of suppliers. Manufacturing firms showing clear efforts to attain feasible and affordable greenness in supply chain therefore procurement shows significant impact on finished products as per quality, cost, value, reliability, duality (Srikanta et al., 2012). He proposed a conceptual framework or procedure of green procurement which consist of five phases as follows

1) Define green procurement environment which defines when, how and why green procurement should be initiated for being efficient and responsive, to measure the problems and capability of organization, anticipate external environment, level of risk and maturity,

degree of customer satisfaction through impact of product on environment. Therefore feasible supplier who will meet the minimum threshold of sustainability will appoint.

2) Then the evaluation of supplier's performance on behalf of environmental front in order to check their feasibility occur.

3) Identification of green purchasing indicators and significant categories for identification of risk, internal and external situations and opportunities to run GP effectively. Significant categories are classified into green which are green reputation and green strategy factors green reputation and non-green which are primary, secondary infrastructure and organizational attitude.

Table 1.

Green strategy factors	Green competency and certification, green customer image, environmental management system
Green reputation factors	Design for environment, focus towards lean, green innovation and green logistics, reverse logistics handling ability, waste management.
Organizational strategy factors	Quality system, employee relationship management, eagerness to adopt changes, new technology, information sharing
Infrastructure factors	Financial stability, capacity, infrastructure
Primary factors	Cost, product quality and reliability, delivery lead time, flexibility
Secondary factors	Cost reduction plan, value addition plan, customer response, packaging and handling ability

1) Prioritization of performance indicators of each significant category among themselves and first check on the basis of inputs of phase 1 and 2 then according to the degree of impact they are calculated.

2) Evaluation and rating of suppliers to check their aggregate performance using performance value analysis (PVA).

This evaluation of supplier on the basis of their performance is mandatory in manufacturing of product because it will eventually identify the characteristics of final product (Garzon et al., 2019). Hence it proves that the main component of green purchasing is sustainable supplier.

3.3.2 Waste Reduction

Different types of waste like waste of over production, over processing, transportation, unutilized skills, waiting, defects, inventory, motion, liquid waste, organic product waste and solid waste are creating harm to sustainability due to this fact nongovernmental organization exerts pressure to maintain sustainability in every aspect and follow the proper segregation of waste and ensure waste removal. While in the context of economy companies are responsible to pay for the waste which is not cost effective and increase the charge of production, raw

material so therefore the principles for waste management like reuse, eliminate, recovery, disposal has the highest value rather than creating waste it will eventually increase profitability, goodwill, corporate sustainability performance, competitiveness, customer loyalty and lesser pressure from non-governmental organizations. Companies should organize a structure of sustainable supply chain network (SSCN) to understand a sustainable economy and keep away from the end of life of natural resources and increase the life cycle of a product.

To deal with waste generation the alternative waste management strategies incorporated in environmental biology like waste prevention, waste minimization, recycling and reuse, biological treatment, incineration, landfills disposal.

Number of technologies use in manufacturing, post use portions of product-life cycles, environmental sensitive methods of manufacturing which includes less harmful materials, innovative chemical neutralization techniques to reduce reactivity, water and energy saving technologies bring to vanish waste in result reduce pollution relates to waste prevention.

Secondly, waste minimization also known as source reduction a most common strategy in manufacturing applications which is actually an altogether strategy of fabrication and designing of products and services which minimize the toxic appearance of resultant wastes may be creating issues in waste stream and in succeeding steps. The decrease in use of material conserve resources and bring decrease in manufacturing cost. Streamlined packaging minimize material use, boost up efficiency of distribution, cost cutting in fuel consumption and lesser air emission.

Thirdly, recycling and reuse considered as the attaining of reuse materials like paper, plastic, glass, metals, woods which can be further use in new product.

Fourthly, biological treatment belongs to treat waste as biodegradable material whose residual (remaining inorganic waste) use for further beneficial purposes. It accomplished by using aerobic composting and anaerobic digestion to separate organic fraction from inorganic material and convert into useable form like bio gas which produces electricity. Another treatment is the mechanical biological treatment (MBT) a mixture of mechanical and biological operations that can decrease volume through organic fraction degradation which is a beneficial energy sources and production of solid end-products such as compost. Fifthly, incineration is a waste burning at a very high temperature in order to generate electricity. Lastly, disposal of landfill also called as tip, dumb, garbage dump and rubbish dump are a disposal of solid and harmful waste isolated from public water and ground water.

The higher the production of waste, the more quantity one has to dispose out. Most of the wastes are rot, smelly, contains metals which are explosive and give birth to hazardous gases, companies who are managing their waste by reducing it either through reuse, recycle, recovery, incineration playing their part in keeping environment clean, saving earth, energy consumption and decrease their liability towards environment pollution in result increase their brand image. Companies who use to have waste removal strategies in policies of doing business will be able to create long term stakeholder value and cost- efficient operations.

Therefore, the WR has a significant relationship on CSP. Hence lower waste the higher will be the sustainability. The reduction of waste saves money through cost effective operations, gain of new products in lesser cost, creates more green jobs, better customer service, gain in sales will increase financial performance of firm therefore WR has significant relationship with FP.

H05: There is a significant relationship between environmental issues and waste reduction.

H015: There is a significant relationship between waste reduction and corporate sustainability performance.

H016: There is a significant relationship between waste reduction and financial performance.

3.3.3 Social Supply Chain Standards

The assessment to check whether in policies of supply chain social standards are added. As working conditions, safety, health, wages, working hours, right to collective bargaining, child labor, practices & punishments, non-discrimination are social standards highlights in social policies taking attention since past two decades given rise to social sustainability (Ashby et al., 2012) As safety being the most rated priority therefore according to company safety policy protection of employees from injuries or any harmful disease by providing safety belongings like helmets, gloves, masks, shoes, jackets to labor and prohibit usage of harmful substances like tobacco, alcohol and drugs fulfills health and safety issues. Avoid of applying biased working conditions instead apply according to the prescribed by law, training to employees for doing a specific job in right manner and right job by right one highlights the social concern in an organization. The right of collective bargaining for negotiation of wages and other conditions of employment is available, child labor working conditions is applying in firm according to federal law which is fourteen to fifteen years old cannot work more than eight hours and no more than three hours on school day. Wages on behalf of work and punishments on any bad act announce according to the guidelines. Ensuring these social standards in companies codes of conduct eventually leads to sustainable development as employee is a major resource of any company.

3.4 Social Standards, Corporate Sustainability Performance and Financial Performance

The Bruntland commission (1987) declared that until and unless the social needs of the society and employees of firm are not met till that time companies will not sufficiently meet corporate sustainability. Hence it is clear that firm's sustainability performance cannot be achieved till the time when firm does not address the social issues of employees or society. (Whooley, 2004) Hence employee satisfaction derive sustainability as social standard is one of the pillar of sustainable development. Therefore, workplace benefits, training, health and safety measures, retirement funds, equality and diversity improve the moral of employees and staff will feel committed towards firm success and ensure to work according to the best possible manner which cannot harm society and increase good will eventually meet the social sustainability which can bring increase in CSP.

As social standards deal with CSR hence according to stakeholder theory and instrumental theory higher the CSR level the higher will be the levels of financial performance (Garriag & Mele, 2004) social sustainability increases moral of employees they feel committed towards their work and responsibility and take part to ensure safety, if firms maintain social standards in firms codes of conducts then employees will do work according to prescribed rules if companies do not think employees to be their own blood then personnel will demotivated and terminates their jobs or do not perform their jobs properly hence will negatively affect sustainability which will bring loss in performance and profitability.

H013: There is a significant relationship between social supply chain standards and corporate sustainability performance.

H014: There is a significant relationship between social supply chain standards and financial performance.

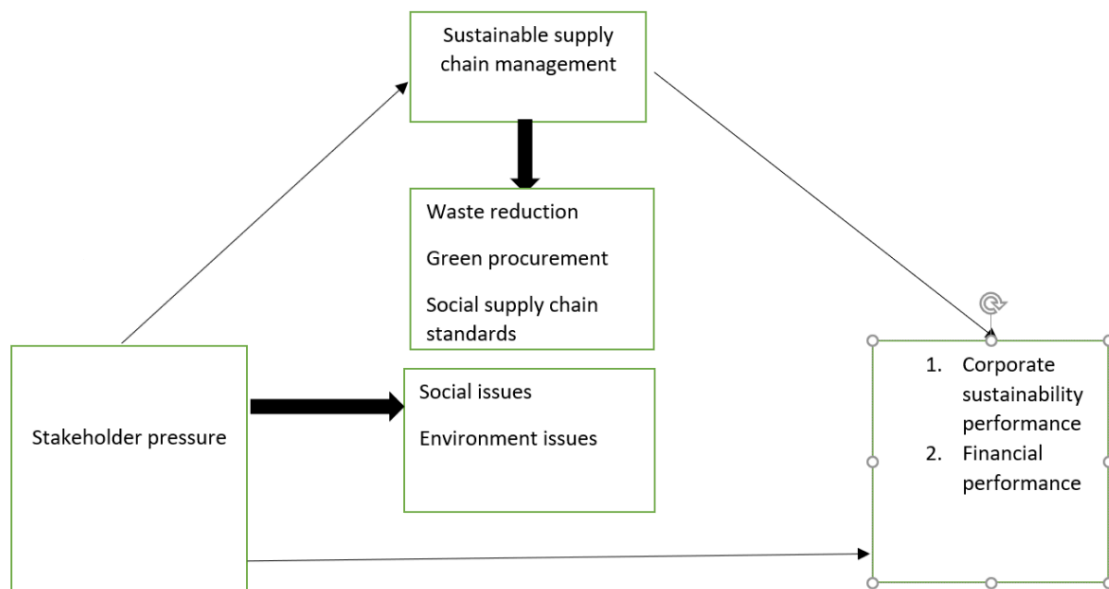


Figure 1. Framework

3.5 Resource Dependency Theory

This theory explains the durability of an organization based on capacity to purchase the needed resources from outside the environment (Salancik & Pfeffer, 1978). The theory explains company's behavior based on two conditions, one is anything which is useful for the organization & the second is one organization reliance upon the other for attaining the useful resources (Salancik & Pefeffer, 1978; Emerson, 1962). Reliance or dependence highlights the power of an organization to command the supplies which are necessary by another organization (Barney & Ulrich, 1984). Therefore, the basic idea of this theory is to explain the strategies which the organization use to minimize the outsourcing of the resources &

maximize the control over their own resources (Hillman et al., 2009).

On behalf of SSCM, RDT explains that identifies to make sure the gain of resources whose lifelong opportunity is warned by the increasing shortage higher utilization & pollution (Hart, 1995).

In such a representation the economic is the first most delight: SSCM is perceived as instrumental (Preston & Donaldson, 1995) for ensuring the sustainable survival the SSCM is a main key. As well as this strategy would suggests the creation of rational abilities (Reuter et al., 2010; Parmigiani et al., 2011) with supplier of the short resources. For example, the manufacturing of chocolate company increases knowledge to obtain the palm oil from the sustainable ways & teach the same to suppliers for maintaining sustainable purchasing. The purpose is to develop the sustainable production of palm oil from those suppliers. This approach gives a benefit to be independent the external environment. The non-governmental organization or local community links into this discussion. Green peace do not have any direct relationship with Nestle hence Nestle is not dependent on Green peace for resource attainment. The example given in introduction claims that the secondary stakeholders has not any contract relationship with company (Lonex & Esley, 2006), but they can enforce power over them that the Green peace threaten Nestle to stop purchasing palm oil from unsustainable sources & creates a detailed program for reasonable purchase. Foreman (1999) used RDT in order to explain that in which manner the stakeholders effect the behavior of organization by impacting the approach of critical resources. The Foreman explain the two types of resource control strategies for actors. In first type the actors can identify, if the company will achieve the required resources, this type of “with -holding strategy” results the impact of stakeholders of keeping back the resources with the resolution or warning. As for example the supply of palm oil from Sinar Mas has been stopped by Nestle in result hurting the resources of palm oil suppliers. Secondly, a strategy known as the “Usage strategy” which entitle that the stakeholders do not cease the resources supply by putting something in return. For the sustainable attainment of palm oil Nestle put its efforts in order to request the supplier to make its production processes sustainable & achieve the certifications regarding the sustainable production. In result Nestle is purchasing from Sinar Mas & other supplier the authentic palm oil which is certified.

The types of pathways act as an influencer which are direct & indirect persistently differentiate by (Frooman, 1999). The strategies in which the stakeholders control the movement of resources into the organization, on the other side the indirect strategies in which the stakeholders put efforts with the partners (Ally) the one who hold or control the movement of resources to the company by using them or withholding them (Frooman, 1999, p. 198). As for example the Green peace controls the Nestle by using the indirect strategy against the supply chain strategies of Nestle by adopting third party as an influencer to stop purchasing the Nestle products, in result Nestle request the Sinar Mas by using the direct strategy for producing the sustainable palm oil.

The whole discussion proves out a reactive SSCM strategies translates that companies only involve in SSCM when due to the pressure of stakeholders, when the resources access are in

fear. But it is also possible that companies involve in SSCM to sort out the resource dependency issues. For example, to be proactive an approach of sustainability for the long-term supply from suppliers the companies want to grow the supplier's sustainability.

3.5.1 Resource Dependence & Proactive SSCMs

Proactive SSCM strategies that, to an organization sustainability is an important aim irrespective to stakeholders profess. In this approach the organizations for the long-term sustainability of resources identifies its dependency as well as promoting the social, economic & environmental impacts in supply chain (Banerjee, 2003). As for example Walmart made its fish supply chain sustainable by purchasing fish from sustainable sources who are certified by Marine stewardship council. This is because Walmart faced shortage of fish in 1990s as they found out that pollution, overfishing, humiliation of oceanic wildlife effects the situation in the coming years. Therefore, Walmart make its supply chain sustainable other than stakeholder pressure (Denend, 2007). As a consequence, the adoption of sustainable supply chain management by companies or organization in order to boost of their corporate social responsibility irrespective of stakeholder groups pressure.

Stakeholder pressure addresses the magnitude of responsibility cognize by organizations for the conclusion regarding product design, distribution, purchasing, production (Parmigiani et al., 2011). In order to respond all stakeholder group it is difficult for the organization due to the difference in the expectations. Stakeholder declaration may even create clashing compulsion on organization in case of extreme urgencies (Gavetti et al., 2005). The stakeholder management strategies have designed by the organizations that find out the stakeholders declaration on the basis of their benevolence, reputation & urgency (Mitchell et al., 1997). By developing the "Good citizenship" stakeholder should make better their CSP & strategy development process can be better by improving effectiveness involving expectations of stakeholders (Yaziji, 2004). Concluding these all-reasoning claims that stakeholder pressure & SSCM both have a boosting effect on organization's CSP in an independent manner. SSCM achieve the access of unfavorable resources in the upstream supply chain, reduction in stakeholder pressure results to integrate stakeholder at corporate level in decision making process but less on supply chain level.

4. Research Method

4.1 Sampling

The target population for this survey are the employees on different level working in different organization of the most cosmopolitan city Karachi in Pakistan. Participation was on voluntarily basis no compensation was awarded in return. This study employees a convenience sampling method as it allows the researchers to select the sample subjects from the target population based on who are willing and who are easily accessible to be recruit in research. It is also least expensive and least time-consuming method as compare to others. A total of 310 administrative questionnaires were distributed to the employees of different organizations of manufacturing firms and responses received in return were luckily 310 showing 100% response rate.

4.2 Instrument

The questionnaire questions were adopted from different papers of recognized journals. Green purchasing questions were adopted from the paper effects of green supply chain practices on environmental performance by (Sibel et al., 2018). Waste minimization questions were adopted from initiatives and outcomes of green supply chain management by (Zhu et al., 2007). Social supply chain standards questions from sustainable supply chain management in small and medium enterprises by (Kot, 2018). Stakeholder pressure questions were adopted from paper a taxonomy of green supply chain management capability among electronics related manufacturing firm by (Shang et al., 2010). Corporate sustainability performance and economic performance questions were taken from paper impact of implementing green supply chain practices on corporate performance by (Younus et al., 2016; Sezen et al., 2019) More specifically the questions measures the mediating variable sustainable supply chain management which is sub divided into different measures which are waste reduction, green purchasing, social supply chain standards, the other independent variable is stakeholder pressure which is sub divided into environmental issues and social supply chain issues while lastly the dependent variables which are corporate sustainability performance and financial performance. All items in each variable construct were gauge using five- Likert scale ranging from 1 strongly agree to 5 strongly disagree.

5. Empirical Analysis

5.1 Demographic Analysis

Table 2. Respondents profile

Variable	Category	Frequency	Percentage
Gender	Male	267	86.1%
	Female	43	13.9%
Age	21-30	181	58.4%
	31-40	101	32.6%
	41-50	24	7.7%
	50-60	4	3%
Organizational Tenure	1-10 years	233	75.2%
	11-20 years	59	19%
	21-30 years	18	5.8%
Position	Director	11	3.5%
	Managing director	8	2.6%
	Senior manager	53	17.1%
	Manager	97	31.3%
	Executive	7	2.3%
	Senior officer	76	24.5%
	Officer	56	18.1%
Owner	2	0.6%	

5.2 Descriptive Statistics

Table 3.

S#	Questions	Descriptive Stats		Confirmatory Factor Analysis		
		Mean	S.D	Outer Loading	T-stats	P-Values
<u>Sustainable supply chain management</u>						
Social supply chain standards						
1.	Employee & stakeholders are a part of sustainable (long term) development.	0.4844	0.0615	0.4849	7.8863	0.0000
2.	Firms should provide health & safety belongings to employees.	0.4388	0.0620	0.4418	7.1275	0.0000
3.	To note injuries record avoid reoccurrence of accidents.	0.4345	0.0631	0.4342	6.8773	0.0000
4.	Firms should provide safety and health programs to its stakeholders.	0.5360	0.0471	0.5376	11.4128	0.0000
5.	Firms should apply ethical conducts of doing business.	0.5694	0.0425	0.5668	13.3301	0.0000
6.	Recycling/reusing of materials is necessary for long term availability of resources.	0.5579	0.0433	0.5582	12.8946	0.0000
7.	Disposal of waste for sustainable environment must teach by firms (acting towards reducing the amount of waste)	0.6424	0.0363	0.6442	17.7587	0.0000
8.	Firms should provide methodologies to employees for environment friendly design of products.	0.6999	0.0333	0.6990	20.9730	0.0000
9.	Life cycle assessment is necessary.	0.6691	0.0322	0.6706	20.7967	0.0000
10.	Firms should invest on its suppliers for environment friendly production of raw materials for long term availability of resources.	0.4985	0.0529	0.4999	9.4458	0.0000
11.	Firms should force its suppliers for environment, social & economic s awareness seminars/certifications for suppliers).	0.6302	0.0360	0.6290	17.4801	0.0000
12.	Selection of supplier should be based on ecological guidelines (Choosing supplier upon environment guidelines)	0.6094	0.0370	0.6098	16.4782	0.0000
<u>Green Procurement (Sustainable purchasing)</u>						
1.	The company evaluates environmental practices of suppliers.	0.7010	0.0345	0.7011	20.2989	0.0000
2.	Company collaborates with suppliers to reduce packaging/packaging & material waste.	0.6755	0.0421	0.6778	16.0924	0.0000
3.	Company should purchase eco-labelled products.	0.7177	0.0378	0.7173	18.9609	0.0000
4.	Firms should do efforts to buy recycled materials.	0.7359	0.0393	0.7353	18.7085	0.0000
5.	Use of standardized components to facilitate their reuse.	0.7925	0.0254	0.7913	31.1220	0.0000
<u>Waste reduction</u>						
1.	To minimize excess packaging/ unrecyclable components. (Design of products for reuse, recycle, and recovery of material).	0.7879	0.0292	0.7888	26.9894	0.0000
2.	To avoid water/ energy/ material consumption.	0.7688	0.0319	0.7708	24.1496	0.0000
3.	Firms should work on the basis of waste minimization regulations waste & conduct waste audits.	0.8012	0.0280	0.8008	28.5804	0.0000
4.	Waste of natural resources is a harm to sustainability & increase cost of firm.	0.6117	0.0515	0.6112	11.8795	0.0000
<u>Stakeholder pressure</u>						
Social supply chain issues						
1.	Stakeholder gives pressure to ensure safety for employees, customers & suppliers through eco design.	0.6643	0.0659	0.6704	10.1800	0.0000
2.	Stakeholders put pressure towards investment in profit sharing schemes with employees.	0.8050	0.0299	0.8068	26.9843	0.0000
3.	To hire trained staff for maintaining sustainability in supply chain.	0.6865	0.0455	0.6827	15.0024	0.0000
<u>Environment Issues</u>						
1.	To minimize resources waste bring pressure from stakeholders on firms & suppliers to upgrade technology (Acquisition of clean technology and equipment)	0.6569	0.0517	0.6568	12.7104	0.0000
2.	Stakeholders put pressure to have ISO 14000 (environmental certification)	0.7691	0.0292	0.7692	26.2991	0.0000
3.	Stakeholders put pressure to avoid environment damaging inputs & do sustainable purchasing. (Avoid use of hazardous products).	0.7700	0.0286	0.7674	26.8465	0.0000
4.	To use efficient operations and logistics to avoid pollution. (Cleaner transportation method).	0.6140	0.0426	0.6122	14.3603	0.0000
5.	Stakeholders put pressure on company to collaborate with suppliers & develop environment programs. (cross-functional cooperation for environment improvement)	0.7132	0.0305	0.7153	23.4821	0.0000
6.	Organization cooperate with customers for cleaner production, eco-design, green packaging.	0.7003	0.0372	0.7006	18.8502	0.0000
7.	Stakeholder put pressure to enhance product quality, customer services & overall cost to decrease.	0.6616	0.0396	0.6618	16.7156	0.0000
<u>Corporate sustainability performance</u>						
1.	Prevention of waste leads to long term availability of resources. (applying green practice helps in reducing in wastes)	0.7309	0.0386	0.7330	18.9768	0.0000
s.	Investments in waste minimizations schemes, enhance health & safety of workers & on suppliers leads to good position sustainability in market place.	0.8287	0.0226	0.8280	36.6135	0.0000
3.	Meeting expectations of diverse stakeholders bring sustainability.	0.6708	0.0556	0.6732	12.1162	0.0000
4.	Follow laws & regulations of governments' leads to grow business sustainable (decrease fine on environmental accidents)	0.6466	0.0573	0.6475	11.2976	0.0000
<u>Financial Performance</u>						
1.	Stakeholder pressure has an impact on corporate financial performance ultimately improves return on investment.	0.6870	0.0548	0.6874	12.5394	0.0000
2.	Waste reduction bring profitability in company & reduction in products cost. (decrease cost of energy consumption & material purchasing)	0.8092	0.0279	0.8107	29.0763	0.0000
3.	Investment on training of employees & suppliers for sustainability is a long term investment increase profits and sales growth.	0.7368	0.0458	0.7365	16.0811	0.0000

According to the above table the mean of the variable social supply chain standards ranges from 0.4345 to 0.6999, while the same item deviates in range of 0.0322 to 0.0620 and the outer loading ranges from 0.4342 to 0.6990, as the value for outer loading should be greater than 0.5 hence the three values are below 0.5 and remaining are above 0.5 which are significant values.

The mean of the variable green procurement ranges from 0.6755 to 0.7925, while the same item deviates in range of 0.0254 to 0.0421 and the outer loading ranges from 0.6778 to 0.7913, values are above 0.5 which are significant. The mean of the variable waste reduction ranges from 0.6117 to 0.8012, while the same item deviates in range of 0.0280 to 0.0515 and the outer loading ranges from 0.6112 to 0.8008, all values are above 0.5 which are significant. The mean of the variable social supply chain issues ranges from 0.6643 to 0.8050, while the same item deviates in range of 0.0299 to 0.0659 and the outer loading ranges from 0.6704 to 0.8068, all values are above 0.5 which are significant. The mean of the variable environmental issues ranges from 0.6140 to 0.7700, while the same item deviates in range of 0.0286 to 0.0517 and the outer loading ranges from 0.6122 to 0.7692 all values are above 0.5 which are significant. The mean of the variable corporate sustainability performance ranges from 0.6466 to 0.8287, while the same item deviates in range of 0.0226 to 0.0573 and the outer loading ranges from 0.6475 to 0.280, all values are above 0.5 which are significant. The mean of the variable financial performance ranges from 0.6870 to 0.8092, while the same item deviates in range of 0.0279 to 0.0548 and the outer loading ranges from 0.6874 to 0.8107, all values are above 0.5 which are significant. All the p values are 0.000 which are quite significant, the p-value less than 0.1 indicates weak evidence against null hypothesis and the hypothesis are accepted.

6. Inference Methodology

A SMART PLS methodology was employed to test the hypothesis and descriptive statistics was used to explore data characteristics. PLS SMART allows for the test, in the same analysis, of factor analysis and hypothesis. This technique provides fuller information about the extent to which the research model is supported by the data regression technique. The result is more vigorous analysis proposed research model and very often a better methodological assessment tool. PLS algorithm and Bootstrapping test was run to test the hypothesis.

6.1 Structural Equation Modeling

To test hypothesis we have used structural equation modelling (SEM) whereas PLS SMART software was used. To measure the indirect and direct effects of all constructs PLS algorithm and bootstrapping was run. SEM equation modeling has been identified as the foremost procedure that has been used below different regression models and methods (Barren & Kenny, 1986). It used to evaluate the structural relationship between exogenous and endogenous variables. It includes factor analysis and multivariate analysis. Moreover, the equation of regression targets an explaining each constructs to assess the cause and effect relationship while all factors in causal model could demonstrates their cause and effect at exact time. Likewise, the idea of using regression has been viewed as reasonable for small and large data and do not require any indirect effect. Hayes (2013) & the both effects can

check by bootstrapping (Shrout & Bolger, 2002).

6.2 Measurement of Outer Model

It is to study about reliability and validity while the test of reliability and validity has been done through convergent validity and discriminant validity in SMART PLS.

6.3 Composite Reliability

It tells about the stability of questionnaire outcomes. For the similar target position at whatever point questionnaire reutilize it will give similar outcome. It tells about the inside consistency & repeatability of the survey is high. The primary measure for unwavering quality is to maintain a strategic distance from unfairness in research. Like this it tends to improve by testing the pursuit procedure & investigation, as is done utilizing diverse research and examination techniques or different researchers. It also incorporates dependability and legitimacy of exploration. Reliability of measurement instruments was evaluated using composite reliability. All the values were above normally and threshold accepted value i.e. 0.70.

6.4 Factor Loadings

The table below mentioned loadings in (CFA) confirmatory factor analysis, loadings 0.5 or above are considered as strong while less as 0.5 are considered as less effective or can be removed from the data.

6.5 Convergent Validity

Convergent validity contains Cronbach's alpha which shows the consistency in the results, composite reliability and average variance extracted to examine construct validity, composite validity was identified and all the values are greater than or equal to 0.6 which shows that good reliability and considered good for confirmatory research (Daskalakis, 2008). Composite reliability is the healthier or vigorous determinant of reliability as compare to Cronbach's alpha. On the other hand the average variance extracted values should also be more than 0.5 which shows that the values have adequate convergent validity. In this study almost all values are above more than 0.5 but those who are not are supposed less effective for the study.

Table 4.

Variables	Cronbach's Alpha	Composite reliability	Average Variance Extracted (AVE)
Corporate sustainable performance	0.6949	0.8134	0.5238
Environmental issues	0.8246	0.8697	0.4896
Financial performance	0.6010	0.7899	0.5574
Green procurement	0.7745	0.8472	0.5265
Social supply chain issues	0.5386	0.7649	0.5222
Social supply chain standards	0.8082	0.8502	0.3260
Waste reduction	0.7310	0.8331	0.5578

6.6 Discriminant Validity

Discriminant validity can be explained as, when the single constructs irrespective specific one differentiate from the other construct in the model (Carmines & Zeller, 1979). Its results are adequate when Average extracted variance (AVE) of any constructs is more than 0.5 which means that the minimum 50% of variance has been taken by the constructs (Chin, 1998). It is established when the values present in diagonal are significantly higher than those values which are in off-diagonal in parallel rows and columns. The test of discriminant validity run in order to check that the measurements which are unrelated ideas are actually un-related or not. A practical estimation of discriminant legitimacy explains that a trial of an idea is not exceptionally associated with different test intended to quantify hypothetically various ideas, as shown in below table. As per this study the top values in each factor column which are the square root of AVE are almost higher than the values below it which means that there is the availability of discriminant validity.

Table 5.

Variables	CSP	EI	FP	GP	SSCI	SSCS	WR
Corporate sustainable performance	0.7238						
Environmental issues	0.5148	0.6997					
Financial performance	0.5501	0.5169	0.7466				
Green procurement	0.5213	0.5535	0.4413	0.7256			
Social supply chain issues	0.4021	0.6545	0.3887	0.4507	0.7226		
Social supply chain standards	0.5415	0.5560	0.5260	0.6737	0.4427	0.5709	
Waste reduction	0.5419	0.5184	0.5205	0.6183	0.3741	0.6760	0.7469

6.7 Model Fit Measures

Table 6.

	Saturated Model	Estimated Model
SRMR	0.0667	0.0967
D_ ULS	3.2955	6.9305
D_ G	0.9176	1.0915
Chi-Square	1544.2834	1721.8692
NFI	0.6549	0.6152

In Smart PLS the fitness of a model can be explain as, various measures such as standardized root -mean -square residual (SRMR) and the exact model fits like d_ ULS and d_ G, normal fit index (NFI) and chi-square.it consist on the value of saturated model and the estimated model as mentioned in above table. The saturated model measures the correlation between all

constructs. While on the other side the estimated model takes model structure into account and is based on total effect scheme.

6.8 Hypothesis Testing

In SMART PLS, bootstrapping is one of the key step which gives the data of constancy of factor guesstimate. Sub test are drawn everywhere from the first example including substitution, in this process (Hair, Metthews, & Sarsedt, 2017). It provides the news of stability of coefficient estimate. In this process a large number of sub-samples are drawn from the original sample with replacement (Hair et al., 2016). After running the bootstrap routine smart PLS shows the t-values for structural model estimates derived from the bootstrapping procedure. The results of path coefficients for all the hypothesis are shown in the table below. The t-value greater than 1.645 ($p < 0.1$) shows that the relationship is significant at 95% confidence interval. Path showing whether the relationship is significant or not. Path diagram is shown below.

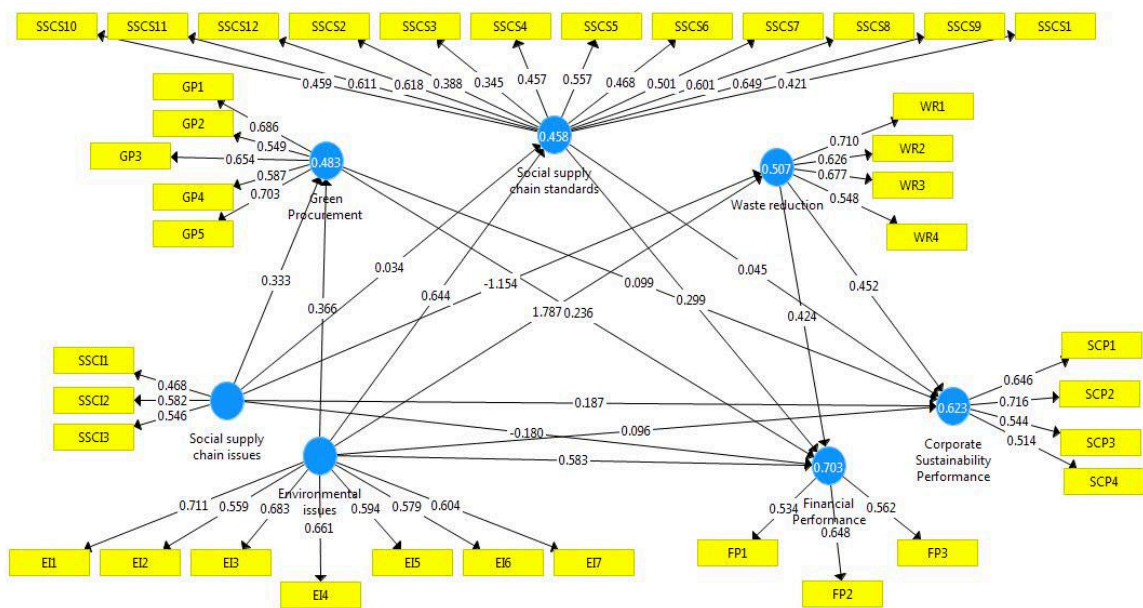


Figure 2. Path diagrams

Table 7. Hypothesis table

Hypothesis	Est	T-stats	P-Values	Result
H01: There is a significant relationship between environmental issues and corporate sustainability performance.	0.2016	2.4917	0.0130	Accept
H02: There is a significant relationship between environmental issues and financial performance.	0.2513	3.0268	0.0026	Accept
H03: There is a significant relationship between environmental issues and green procurement.	0.4522	6.7625	0.0000	Accept
H04: There is a significant relationship between environmental issues and social supply chain standards.	0.4658	6.3491	0.0000	Accept
H05: There is a significant relationship between environmental issues and waste reduction.	0.4786	6.8157	0.0000	Accept
H06: There is a significant relationship between green procurement and corporate sustainability performance.	0.1398	1.8039	0.0719	Accept
H07: There is a significant relationship between green procurement and financial performance.	-0.0054	0.0688	0.9452	Reject
H08: There is a significant relationship between sustainable supply chain issues and corporate sustainability performance.	0.0525	0.8167	0.4145	Reject
H09: There is a significant relationship between sustainable supply chain issues and financial performance.	0.0455	0.6289	0.5297	Reject
H010: There is a significant relationship between sustainable supply chain issues and green procurement.	0.1547	2.0761	0.0384	Accept
H011: There is a significant relationship between sustainable supply chain issues and sustainable supply chain standards	0.1379	1.9109	0.0566	Accept
H012: There is a significant relationship between sustainable supply chain issues and waste reduction.	0.0609	0.8202	0.4125	Reject
H013: There is a significant relationship between sustainable supply chain standards and corporate sustainability performance.	0.1620	2.0327	0.0426	Accept
H014: There is a significant relationship between sustainable supply chain standards and financial performance.	0.2123	2.6306	0.0088	Accept
H015: There is a significant relationship between waste reduction and corporate sustainability performance.	0.2218	2.8917	0.0040	Accept
H016: There is a significant relationship between waste reduction and financial performance.	0.2330	3.0811	0.0022	Accept

As per the above table of hypothesis, the P-Values less than equal to 0.1 ($p \leq 0.1$) are considered as significant which means that the values showing the weak evidence against null hypothesis and hypothesis are accept, on the other hand the P-Values greater than 0.1 ($p > 0.5$) considered as the strong evidence against null hypothesis and the hypothesis are rejected at confidence interval 97.5%.

As the data for this study has been collected from different organizations of Pakistan & the

quantitative approach of data collection was used, for collecting the primary data through questionnaire was filled by 310 respondents of different organizations.

The table indicates that in the organizations of a developing country as Pakistan there is statistically positive significant relationship of Environment issues with sustainable supply chain management and dependent variables which are corporate sustainability performance and financial performance of a firm. As the P-Values of environment issues on the variables mention before are less than 0.1 like in hypothesis (H01, H02, H03, H04, and H05) clearly shows that the values are positively significant and showing the weak evidence against null hypothesis and the hypothesis are accepted. Concluding these p values shows that when environmental controversies are increasing there is chance of increasing of sustainable supply chain management as well as the chance of increasing the corporate sustainability performance and financial performance in a private sectors organization of Pakistan. Focal organizations try to strengthen their relationships with stakeholder for the sake of reducing the threat of taking back the resources and hurts organization reputation. Therefore, it is to create the integration of stakeholder capabilities to promptly understand stakeholder perception (Harrison et al., 2010; Hurt & Sharma, 2004; Kassinis & Vefas, 2006). The combination of focal organization intensify corporate sustainability performance (Zhu & Sarkis, 2007; Sharma, 2000).

On the other hand, the other variable of stakeholder pressure is social supply chain issues which has a positive significant effect on green procurement and social supply chain standards like in hypothesis (H010 & H011) which means as the stakeholder pressure increases the focal organizations starts to make better their sustainable procurement and social standards to meet the supply chain sustainability. While social issues has no significant direct relationship with waste reduction, means the increasing change in social issues does not bring change in waste reduction and on the same pace with corporate sustainability performance & financial performance like in hypothesis (H08, H09, H012) because the P-Values are greater than 0.1 and therefore showing strong evidence against null hypothesis and null hypothesis are rejected).

The variables of sustainable supply chain management has a positive significant effect with corporate sustainability performance and financial performance of a firm as in hypothesis (H06, H013, H014, H015, H016) showing by increasing in applying of practices in sustainable supply chain management will increase the CSP and FP because p-values are smaller than 0.1 showing significant effect.

And green procurement showing the negative non-significant effect on financial performance because the p-value is greater than 0.1 as in hypothesis (H07) and null hypothesis rejected.

Table 8. Significant mediation effects

Relation	Est	T-stats	P-Values
Environmental issues -> Green Procurement -> Corporate Sustainability Performance	0.0632	1.6830	0.0930
Environmental issues -> Social supply chain standards -> Corporate Sustainability Performance	0.0755	2.0016	0.0459
Environmental issues -> Waste reduction -> Corporate Sustainability Performance	0.1061	2.5773	0.0102
Environmental issues -> Social supply chain standards -> Financial Performance	0.0989	2.5141	0.0122
Environmental issues -> Waste reduction -> Financial Performance	0.1115	2.7071	0.0070

As per the results generated the above table shows specific indirect effect of three variables showing the mediating effect of SSCM. There is a positive strong relationship among the environmental issues, SSCM which ultimately leads to CSP. It shows that as environmental issues or controversies increases has an impact on sustainable supply chain management practices which leads to bring a change on CSP because p-values are less than 0.1. Concluding EI has an impact on SSCM which leads to CSP. On the other side environmental issue has not a significant indirect relationship with SSCM to achieve FP because P value is greater than 0.1 it means to achieve financial performance no impact of environmental issues on green purchasing is necessary.

Sustainable supply chain issues have not an impact on SSCM, in order to achieve CSP & FP. This whole table shows there is a mediating effect for EI to achieve CSP, but not on FP in case of green purchasing. And there is no mediating effect between sustainable supply chain issues, SSCM which leads to CSP & FP due to larger p-values.

7. Discussion

This study found that environmental issues has a direct positive effect means significant relation with corporate sustainability performance (CSP) and financial performance (FP) supporting hypothesis (H01 to H05) this means that minimization of resources waste, upgrading technology, working according to the ISO 14000 guidelines, sustainable purchasing, environment sustainability programs, eco-design packaging, cleaner production, waste reduction, employee safety, training, sustainable supplier selection all due to the pressure exertion from stakeholder like customers, suppliers, non-governmental organizations can bring change in corporate sustainability performance, as the increase in stakeholder pressure for keeping environment sustainable can bring increase in CSP and FP (Hart & Ahuja, 1996; Russo & Fouts, 1997; Konar & Cohen, 2001; King & Lonex, 2002) it is also clear that stakeholder pressure force organizations to act according to the expectations of stakeholders in order to achieve reputation and sustainable performance and will not face withholding of resources and can bring new strategies, solutions and tactics of doing business (e.g., Reutal et al., 2010) these all make the supply chain management sustainable and can have competitive advantage as compare to other firms (e.g.m Parmigiani et al., 2011; Zhu et al., 2012; Vachon & Klassen, 2008) and some of the stakeholder theorists explained that the financial performance of any organization is identify by its stakeholder's decision on behalf

of organization's actions (e.g., Frooman, 1999). On the other hand, social supply chain issues have insignificant effect on waste reduction (WR), CSP and FP supporting to hypothesis (H08, H09, H012) indicating that it is not necessary to incorporate social network, social interactions to enhance relationship in order to achieve corporate sustainability performance as well as SSCI, social issues focuses on legislative health and safety issues instead of ethical problems (Seuring & Muller, 2008; Carton & Easton, 2011; Seuring, 2004, Linton & Klassen, 2007; Seuring, 2004 carter and auston, 2011; Ashby et al., 2012; Seuring, 2013). While social supply chain issues have significant effect on green purchasing (GP) and social supply chain standards (SSCS) indicating that increase in stakeholder pressure in social issues bring increase in sustainable supply chain management.

On the other hand sustainable supply chain management has a direct positive effect means significant relationship with CSP and FP, it is indicating that SSCM is directly related to the understanding of being independent to stakeholder pressure and are getting benefits by attaining SSCM strategies proving as a good citizen organizations, build reputation by promoting environment and social sustainability in their supply chain yet most of the literature prove this results that some organizations do this on voluntarily basis for sustainable one (e.g., Schneider & Wallenburg, 2012; Zhu & Sarkis, 2007; Srivastava, 2007).

On the other hand the indirect effects of SP to achieve CP & FP is mediated by SSCM showing that to have CP organizations have to take support of SSCM strategies when SP is high, means the higher stakeholder pressure the more use of sustainable supply chain management strategies and the higher will be the corporate sustainability performance because it leads to the development of innovative solutions to environment problems (Zhu & Sarkis, 2007) and to achieve CSP and FP the SSCM does not giving a mediating effect on SP because of having insignificant p-values.

8. Conclusion

This study aims to identify the relation of stakeholder pressure, sustainable supply chain management, corporate sustainability performance and financial performance by collecting 310 respondents from different organizations of a largest cosmopolitan city Karachi Pakistan. Model which is presented in this research consist of four variables which are as follows, independent variable is stakeholder pressure and it is sub divided into environmental and supply chain issues or controversies, mediating variable is sustainable supply chain management which is sub-divided into waste reduction, green purchasing and social supply chain standards, and lastly the two dependent variables which are corporate sustainability performance and financial performance. These variables have not been researched until now. From the results it is concluded that for CSP and FP environmental issues are playing a major role and this antecedent has a significant effect on both the outcomes indicating that organizations act according to the pressure exerted by outside sources. Concluding the increase in stakeholder pressure (Environmental issues) will increase in corporate sustainability performance and financial performance while the social issues indicating that it is not necessary to incorporate social network, social interactions to enhance relationship in order to achieve CP as well as SSCI has significant effect on green purchasing (GP) and

social supply chain standards (SSCS) indicating that increase in stakeholder pressure in social issues bring increase in sustainable supply chain management. While SSCM has significant relationship with CSP and FP, it is indicating that SSCM is directly related to the understanding of being independent to stakeholder pressure and are getting benefits by attaining SSCM strategies proving as a good citizen organization and maintaining financial position (e.g., Schneider & Wallenburg, 2012; Zhu & Sarkis, 2007; Srivastava, 2007). Indirect effects of SP to achieve CP & FP is mediated by SSCM showing that to have CP organizations have to take support of SSCM strategies when SP is high, means the higher stakeholder pressure the more use of sustainable supply chain management strategies and the higher will be the corporate sustainability performance because it leads to the development of innovative solutions to environment problems (Zhu & Sarkis, 2007) and to achieve CSP and FP the SSCM does not giving a mediating effect on SP because of having insignificant p-values. These results are different as compare to the researches done previously because the industries, regions and countries are different as well as in Pakistan supply chain management is not a vast field right now it is an emerging field and it requires more to be at the better position and ultimately organizations time to time will reach at innovative idea, strategies, tactics and solutions for the sake of being independent and act as a sustainable one. The practical implications of this research would be indirect effects of SP to achieve CP & FP is mediated by SSCM showing that to have CP organizations have to take support of SSCM strategies when SP is high, means the higher stakeholder pressure the more use of sustainable supply chain management strategies and the higher will be the corporate sustainability performance because it leads to the development of innovative solutions to environment problems (Zhu & Sarkis, 2007) and to achieve CSP and FP the SSCM does not giving a mediating effect on SP because of having insignificant p-values.

Firms strategies, tactics and decisions are propel by the coercive pressure from stakeholders, customers, non-governmental organizations which results in better & much workable new solutions to drive healthier economic, social & environmental conditions. This research can be used by students, researchers for academic purposes & can also use by firms as a reference point for designing of strategies, practices in order to gain sustainability.

From this study, different organizations will be able to identify how stakeholder pressure will effect sustainable supply chain management & what strategies and tactics they should formulate in order to reach at a better performance point of corporate sustainability and profits and help organizations to select strategies, deciding of tactics and solution to bring sustainability in their supply chain how can these strategies and tactics can help to improve CSP & FP.

8.1 Limitations and Future Recommendations

This study is restricted to the respondents from Karachi Pakistan and the results are based on the private sector manufacturing companies. As well as the responses are closed-ended respondents were not able to give answers in details. Therefore, in future this can be based interviews because the open-ended question further clear the situation as well as in future the industry can be change and can conduct on public sector industry. It is suggested that

organizations should create a liaison with academic institutions to further enhance research activities in Pakistan ultimately it would be helpful for better response and results.

References

- Agle, B. R., Mitchell, R. K., & Sonnenfeld, J. A. (1999). Who matters to CEO's? An investigation of stakeholder attributes and salience, corporate performance and CEO values. *Academy of Management Journal*, 42(5), 507–525. <https://doi.org/10.5465/256973>
- Ahmad, H. M. A. H., Iteng, R., Saad, R., Abdul, R., & Mohd, K. I. (2018). The criteria of sustainable product development and organizational performance. *International Journal of Supply Chain Management*, 7, 497–501.
- Ashby, A., Leat, M., & Hudson-Smith, M. (2012). Making connections: A review of supply chain management and sustainability literature. *Supply Chain Management: An International Journal*, 17(5), 497–516.
- Bai, C., & Sarkis, J. (2010). Green supplier development: Analytical evaluation using rough set theory. *Journal of Cleaner Production*, 18(12), 1200–1210. <https://doi.org/10.1016/j.jclepro.2010.01.016>
- Banerjee, S. B. (2003). Who sustains whose development? Sustainable development and the reinvention of nature. *Organization Studies*, 24(1), 143–180. <https://doi.org/10.1177/0170840603024001341>
- Bansal, P., & Mark, R. (2014). DesJardine. Business sustainability: It is about time. *Strategic Organization*, 12(1), 70–78.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal*, 42(5), 488–506. <https://doi.org/10.5465/256972>
- Björklund, M. (2011). Influence from the business environment on environmental purchasing: Drivers and hinders of purchasing green transportation services. *Journal of Purchasing and Supply Management*, 17(1), 11–22. <https://doi.org/10.1016/j.pursup.2010.04.002>
- Burhan, N. A. H., & Rahmanti, W. (2012). The Impact of Sustainability Reporting on Company Performance. *Journal of Economics, Business, and Accountancy| Ventura*, 15(2), 257–272.
- Buysse, K., & Verbeke, A. (2003). Proactive environmental strategies: A stakeholder management perspective. *Strategic Management Journal*, 24(5), 453–471.

<https://doi.org/10.1002/smj.299>

Carter, C. R. (2005). Purchasing social responsibility and firm performance: The key mediating roles of organizational learning and supplier performance. *International Journal of Physical Distribution & Logistics Management*, 35(3), 177–194. <https://doi.org/10.1108/09600030510594567>

Carter, C. R., & Jennings, M. M. (2004). The role of purchasing in corporate social responsibility: A structural equation analysis. *Journal of Business Logistics*, 25(1), 145–186. <https://doi.org/10.1002/j.2158-1592.2004.tb00173.x>

Carter, C. R., Kale, R., & Grimm, C. M. (2000). Environmental purchasing and firm performance: An empirical investigation. *Transportation Research Part E*, 36(3), 219–228. [https://doi.org/10.1016/S1366-5545\(99\)00034-4](https://doi.org/10.1016/S1366-5545(99)00034-4)

Carter, C. R., & Rogers, D. S. (2008). A framework of sustainable supply chain management: Moving toward new theory. *International Journal of Physical Distribution & Logistics Management*, 38(5), 360–387. <https://doi.org/10.1108/09600030810882816>

Chin, T. A., Tat, H. H., Sulaiman, Z., & Muhamad Zainon, S. N. L. (2015). Green Supply Chain Management Practices and Sustainability Performance. *Advanced Science Letters*, 21(5), 1359–1362. <https://doi.org/10.1166/asl.2015.6029>

Corbett, C. J., & Klassen, R. D. (2006). Extending the horizons: Environmental excellence as key to improving operations. *Manufacturing & Service Operations Management*, 8(1), 5–22. <https://doi.org/10.1287/msom.1060.0095>

Darnall, N., Henriques, I., & Sadorsky, P. (2010). Adopting proactive environmental strategy: The influence of stakeholders and firm size. *Journal of Management Studies*, 47(6), 1072–1094. <https://doi.org/10.1111/j.1467-6486.2009.00873.x>

Delmas, M. (2001). Stakeholders and competitive advantage: The case for ISO 14001. *Production & Operations Management*, 10(3), 343–358. <https://doi.org/10.1111/j.1937-5956.2001.tb00379.x>

Delmas, M., & Montiel, I. (2008). The diffusion of voluntary international management standards: Responsible care, ISO 9000, and ISO 14001 in the chemical industry. *Policy Studies Journal*, 36(1), 65–93. <https://doi.org/10.1111/j.1541-0072.2007.00254.x>

Delmas, M. A., & Toffel, M. W. (2008). Organizational responses to environmental demands: Opening the black box. *Strategic Management Journal*, 29(10), 1027–1055. <https://doi.org/10.1002/smj.701>

Denend, L. (2007). Wal-Mart's sustainability strategy (Case OIT-71), 1–50. Stanford: Stanford Graduate School of Management.

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20(1), 65–91. <https://doi.org/10.2307/258887>

- Eesley, C., & Lenox, M. J. (2006). Firm responses to secondary stakeholder action. *Strategic Management Journal*, 27(8), 765–781. <https://doi.org/10.1002/smj.536>
- Eltayeb, T. K., Zailani, S., & Ramayah, T. (2011). Green supply chain initiatives among certified companies in Malaysia and environmental sustainability: investigating the outcomes. *Resources, Conservation and Recycling*, 55(5), 495–506.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review*, 27(1), 31–41. <https://doi.org/10.2307/2089716>
- Endrikat, J., Guenther, E., & Hoppe, H. (2014). Making sense of conflicting empirical findings: A meta-analytic review of the relationship between corporate environmental and financial performance. *European Management Journal*, 32(5), 735–751.
- Felipe, S. G., Manon, E., Mauricio, C., & Laure, M. (2019). A green procurement methodology based on Kraljic Matrix for supplier's evaluation and selection: a case study from the chemical sector. *Supply Chain Forum: An International Journal*, 20(3), 185–201.
- Foerstl, K., Reuter, C., Hartmann, E., & Blome, C. (2010). Managing supplier sustainability risks in a dynamically changing environment: Sustainable supplier management in the chemical industry. *Journal of Purchasing and Supply Management*, 16(2), 118–130. <https://doi.org/10.1016/j.pursup.2010.03.011>
- Foo, M. Y., Kanapathy, K., Zailani, S., & Shaharudin, M. R. (2019). The Impact of Green Purchasing Capabilities and Practices on Firm Sustainability. *Science Proceedings Series*, 1, 16–21.
- Freeman, R. E. (1994). The politics of stakeholder theory: some future directions. *Business Ethics Quarterly*, 4(4), 409–421.
- Frooman, J. (1999). Stakeholder influence strategies. *Academy of Management Review*, 24(2), 191–205. <https://doi.org/10.5465/amr.1999.1893928>
- Garriga, E., & Melé, D. (2004). Corporate social responsibility theories: Mapping the territory. *J. Bus. Ethics*, 53, 51–71.
- Gavetti, G., Levinthal, D. A., & Rivkin, J. W. (2005). Strategy making in novel and complex worlds: The power of analogy. *Strategic Management Journal*, 26(8), 691–712. <https://doi.org/10.1002/smj.475>
- Geibler, J., Liedtke, C., Wallbaum, H., & Schaller, H. (2006). Accounting for the Social Dimension of Sustainability: Experiences from the Biotechnology Industry. *Business Strategy and the Environment*, 15, 334–346.
- Gonzalez-Benito, J. (2008). the Effect of Manufacturing Pro-Activity on Environmental Management: An Exploratory Analysis. *International Journal of Production Research*, 46, 7017-7038.
- González-Benito, J., & González-Benito, O. (2006). The role of stakeholder pressure and managerial values in the implementation of environmental logistics practices. *International*

Journal of Production Research, 44(7), 1353–1373.
<https://doi.org/10.1080/00207540500435199>

Gonzalez-Benito, J., & Gonzalez-Benito, O. (2010). A study of determinant factors of stakeholder environmental pressure perceived by industrial companies. *Business Strategy & the Environment*, 19(4), 164–181.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River: Pearson Prentice Hall.

Harrison, J. S., Bosse, D. A., & Phillips, R. A. (2010). Managing for stakeholders, stakeholder utility functions, and competitive advantage. *Strategic Management Journal*, 31(1), 58–74. <https://doi.org/10.1002/smj.801>

Hart, S. L. (1995). A natural resource-based view of the firm. *Academy of Management Review*, 20(4), 986–1014. <https://doi.org/10.5465/amr.1995.9512280033>

Hart, S. L., & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment*, 5(1), 30–37.

Hart, S. L., & Sharma, S. (2004). Engaging fringe stakeholders for competitive imagination. *Academy of Management Executive*, 18(1), 7–18. <https://doi.org/10.5465/ame.2004.12691227>

Henriques, I., & Sadosky, P. (1999). The relationship between environmental commitment and managerial perceptions of stakeholder importance. *Academy of Management Journal*, 42(1), 87–99. <https://doi.org/10.2307/256876>

Hillman, A. J., & Keim, G. D. (2001). Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strategic Management Journal*, 22(2), 125–139. [https://doi.org/10.1002/1097-0266\(200101\)22:2<125::AID-SMJ150>3.0.CO;2-H](https://doi.org/10.1002/1097-0266(200101)22:2<125::AID-SMJ150>3.0.CO;2-H)

Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of Management*, 35(6), 1404–1427. <https://doi.org/10.1177/0149206309343469>

Hui, I. K., Chan, A. H. S., & Pun, K. F. (2001). A study of the environmental management system implementation practices. *Journal of Cleaner Production*, 9(3), 269–276.

Hull, C. E., & Rothenberg, S. (2008). Firm performance: The interactions of corporate social performance with innovation and industry differentiation. *Strategic Management Journal*, 29(7), 781–789. <https://doi.org/10.1002/smj.675>

Jiang, B. (2009). The effects of interorganizational governance on supplier's compliance with SCC: An empirical examination of compliant and non-compliant suppliers. *Journal of Operations Management*, 27(4), 267–280. <https://doi.org/10.1016/j.jom.2008.09.005>

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: User's reference guide*. Chicago: Scientific Software International

- Jones, P., Comfort, D., & Hillier, D. (2007). What's in store? Retail marketing and corporate social responsibility. *Marketing Intelligence & Planning*, 25(1), 17–30.
- Kassinis, G., & Vafeas, N. (2006). Stakeholder pressures and environmental performance. *Academy of Management Journal*, 49(1), 145–159. <https://doi.org/10.5465/amj.2006.20785799>
- King, A., & Lenox, M. (2002). Exploring the locus of profitable pollution reduction. *Management Science*, 48(2), 289–299.
- Konar, S., & Cohen, M. A. (2001). Does the market value environmental performance? *Review of Economics and Statistics*, 83(2), 281–289.
- Koplin, J., Seuring, S., & Mesterharm, M. (2007). Incorporating sustainability in supply chain management in the automotive industry, the case of Volkswagen. *Journals of Cleaner Production*, 15, 1053–1062.
- Kuo-Chung, S., Chin-Shan, L., & Shaorui, L. (n.d.). *Journal of Environmental Management*, 91, 1218–1226.
- Large, R. O., & Gimenez, C. (2011). Drivers of green supply management performance: Evidence from Germany. *Journal of Purchasing and Supply Management*, 17(3), 176–184. <https://doi.org/10.1016/j.pursup.2011.04.006>
- Lee, S.-Y., & Klassen, R. D. (2008). Drivers and enablers that foster environmental management capabilities in small- and medium-sized suppliers in supply chains. *Production & Operations*. <https://doi.org/10.3401/poms.1080.0063>
- Longoni, A., & Cagliano, R. (2018). Inclusive environmental disclosure practices and firm performance: the role of green supply chain management. *International Journal of Operations & Production Management*, 38(9), 1815–1835. <https://doi.org/10.1108/IJOPM-12-2016-0728>
- Markley, M. J., & Davis, L. (2007). Exploring future competitive advantage through sustainable supply chains. *International Journal of Physical Distribution & Logistics Management*, 37(9), 763–774. <https://doi.org/10.1108/09600030710840859>
- Mian, M. A., Mehmood, K., Matloub, H., & Petri, H. (2018). Conceptualizing and incorporating social sustainability in the business world. *International Journal of Sustainable Development & World Ecology*, 25(4), 327–339.
- Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. *Academy of Management Review*, 22(4), 853–886. <https://doi.org/10.5465/amr.1997.9711022105>
- Molina-Azorin, J. F., Claver-Cortes, E., Lopez-Gamero, M. D., & Tari, J. J. (2009). Green management and financial performance: A literature review. *Management Decision*, 47(7), 1080–1100.
- Murillo-Luna, J. L., Garce's-Ayerbe, C., & Rivera-Torres, P. (2008). Why do patterns of

- environmental response differ? A stakeholders' pressure approach. *Strategic Management Journal*, 29(11), 1225–1240. <https://doi.org/10.1002/smj.711>
- Muthe'n, L. K., & Muthe'n, B. O. (2010). *Statistical analysis with latent variables. User's guide* (6th ed.). Los Angeles:
- Muthe'n, L. K., & Muthe'n, N. S. (2010). The transparent supply chain. *Harvard Business Review*, 88(10), 76–82.
- Ngwakwe, C. C. (2009). Environmental responsibility and firm performance: Evidence from Nigeria. *International Journal of Humanities and Social Sciences*, 3(2), 97–103.
- Parmigiani, A., Klassen, R. D., & Russo, M. V. (2011). Efficiency meets accountability: Performance implications of supply chain configuration, control, and capabilities. *Journal of Operations Management*, 29(3), 212–223. <https://doi.org/10.1016/j.jom.2011.01.001>
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Stanford: Stanford University Press.
- Phillips, R., & Caldwell, C. B. (2005). Value chain responsibility: A farewell to arm's length. *Business and Society Review*, 110(4), 345–370. <https://doi.org/10.1111/j.0045-3609.2005.00020.x>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–904. <https://doi.org/10.1037/0021-9010.88.5.879>
- Pullman, M. E., Maloni, M. J., & Carter, C. R. (2009). Food for thought: Social versus environmental sustainability practices and performance outcomes. *Journal of Supply Chain Management: A Global Review of Purchasing & Supply*, 45(4), 38–54. <https://doi.org/10.1111/j.1745-493X.2009.03175.x>
- Qinghu, Z., Joseph, S., & Kee-Hung, L. (n.d.). *Journal of Environmental Management*, 85, 179–189.
- Reuter, C., Foerstl, K., Hartmann, E., & Blome, C. (2010). Sustainable global supplier management: The role of dynamic capabilities in achieving competitive advantage. *Journal of Supply Chain Management: A Global Review of Purchasing & Supply*, 46(2), 45–63. <https://doi.org/10.1111/j.1745-493X.2010.03189.x>
- Routroy, S., & Pradhan, S. K. (2012). Framework for green procurement: A case study. *Int. J. Procurements Management*, 5(3), 316–336.
- Sarkis, J., Gonzalez-Torre, P., & Adenso-Diaz, B. (2010). Stakeholder pressure and the adoption of environmental practices: The mediating effect of training. *Journal of Operations Management*, 28(2), 163–176. <https://doi.org/10.1016/j.jom.2009.10.001>
- Sarkis, J., Zhu, Q., & Lai, K.-H. (2011). an organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, 130(1), 1–15. <https://doi.org/10.1016/j.ijpe.2010.11.010>

- Schmidt, C. G., Foerstl, K., & Schaltenbrand, B. (2017). The supply chain position paradox: Green practices and firm performance. *Journal of Supply Chain Management*, 53(1), 3–25.
- Seuring, S. (2004). Integrated chain management and supply chain management comparative analysis and illustrative cases. *Journal of Cleaner Production*, 12(8), 1059–1071.
- Seuring, S. (2013). A review of modeling approaches for sustainable supply chain management. *Decision Support Systems*, 54(4), 1513–1520.
- Sharma, S. (2000). Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal*, 43(4), 681–697. <https://doi.org/10.2307/1556361>
- Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16(15), 1699–1710.
- Sharma, S., & Henriques, I. (2005). Stakeholder influences on sustainability practices in the Canadian forest products industry. *Strategic Management Journal*, 26(2), 159–180. <https://doi.org/10.1002/smj.439>
- Sharma, S., & Vredenburg, H. (1998). Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strategic Management Journal*, 19(8), 729–754. [https://doi.org/10.1002/\(SICI\)1097-0266\(199808\)19:8<729::AID-SMJ967>3.0.CO;2-4](https://doi.org/10.1002/(SICI)1097-0266(199808)19:8<729::AID-SMJ967>3.0.CO;2-4)
- Shernaz, B., & Ruzbeh, B. (n.d.). Does corporate sustainability impact firm profitability. *Evidence from India Management Decision*, 56(8).
- Sibel, Y. Ç., & Bulent, S. (2018). Effects of green supply chain management practices on sustainability performance. *Journal of Manufacturing Technology Management*, <https://doi.org/10.1108/JMTM-03-2018-0099>
- Surroca, J., Tribo, J. A., & Waddock, S. (2010). Corporate responsibility and financial performance: The role of intangible resources. *Strategic Management Journal*, 31(5), 463–490. <https://doi.org/10.1002/smj.820>
- Stanwick, P., & Stanwick, S. (1998). The relationship between corporate social performance, and organizational size, financial performance and environmental performance: an empirical examination. *Journal of Business Ethics*, 17, 195–204.
- Sustainable Supply Chain Management in Small and Medium Enterprises. (2018). Retrieved from <https://www.researchgate.net/publication/324454568>
- The Economist. (2010). the other oil spill. *Economist*, 71–73. London: Economist Newspaper Limited.
- Tracy, A., Lee, D., Nelson, D., & Walker, J. (2010). The determinants of corporate sustainability performance. *Accounting and Finance*, 50(1), 31–51.
- Tribo, J. A., & Surroca, J. (2011). *Can we trust cheap social talk?* In Annual Conference of

the Strategic Management Society, Miami, Florida, November 2011

Ullman, A. A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of U.S. firms. *Academy of Management Review*, *10*(1), 540–557. <https://doi.org/10.5465/amr.1985.4278989>

Ulrich, D., & Barney, J. B. (1984). Perspectives in organizations: Resource dependence, efficiency, and population. *Academy of Management Review*, *9*(3), 471–481. <https://doi.org/10.5465/amr.1984.4279680>

Vachon, S., & Klassen, R. D. (2008). Environmental management and manufacturing performance: The role of collaboration in the supply chain. *International Journal of Production Economics*, *111*(2), 299–315. <https://doi.org/10.1016/j.ijpe.2006.11.030>

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance—financial performance link. *Strategic Management Journal*, *18*(4), 303–319. [https://doi.org/10.1002/\(SICI\)1097-0266\(199704\)18:4<303::AID-SMJ869>3.0.CO;2-G](https://doi.org/10.1002/(SICI)1097-0266(199704)18:4<303::AID-SMJ869>3.0.CO;2-G)

Walker, H., Di Sisto, L., & McBain, D. (2008). Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of Purchasing & Supply Management*, *14*(1), 69–85.

Whooley, N. (2004). *Social responsibility in Europe*. Retrieved from <http://www.pwc.com>

Wolf, J. (2014). The relationship between sustainable supply chain management, stakeholder pressure and corporate sustainability performance. *Journal of Business Ethics*, *119*(3), 317–328. <https://doi.org/10.1007/s10551-012-1603-0>

World Commission on Environment and Development. (1987). *Our common future*. New York: Oxford University Press.

Yaziji, M. (2004). Turning gadflies into allies. *Harvard Business Review*, *82*(2), 110–115.

Younis, H., Sundarakani, B., & Vel, P. (2016). The impact of implementing green supply chain management practices on corporate performance. *Competitiveness Review*, *26*, 216–245.

Zhu, Q., & Sarkis, J. (2004). Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises. *Journal of Operations Management*, *22*(3), 265–289. <https://doi.org/10.1016/j.jom.2004.01.005>

Zhu, Q., & Sarkis, J. (2007). The moderating effects of institutional pressures on emergent green supply chain practices and performance. *International Journal of Production Research*, *45*(18/19), 4333–4355. <https://doi.org/10.1080/00207540701440345>

Zhu, Q., Sarkis, J., & Lai, K-h. (2012). Examining the effects of green supply chain management practices and their mediations on performance improvements. *International Journal of Production Research*, *50*(5), 1377–1394. <https://doi.org/10.1080/00207543.2011.571937>

Zhu, Q., Sarkis, J., Lai, K., & Geng, Y. (2008c). The role of organizational size in the adoption of green supply chain management practices in China. *Corporate Social Responsibility and Environmental Management*, 15(6), 322–337.

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