



## Moving from the Traditional Practices to the Green Era

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### ABSTRACT

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As environmental issues have become of prime importance, green supply chain management (GSCM) has become a proactive approach for industries to improve their environmental performance and develop a competitive advantage. GSCM has been widely implemented by different industrial sectors to minimize the environmental impact of their supply chain activities, such as waste generation and pollution. Nowadays, industries are seeking to convert their traditional supply chain management (TSCM) to (GSCM) due to concerns about environmental sustainability and to improve their overall performance, develop a competitive advantage, and gain a brand image. This paper started with an interest in understanding the factors that lead companies to convert their traditional practices to more environmentally friendly activities. Many theories in the literature were employed to explore the topic of GSCM; three theories have been observed to be the vital theoretical pillars within the GSCM literature namely, institutional theory, stakeholder theory, and resource-based view theory. These theories will be discussed in this paper. The aim of reviewing these theories is to understand the transition process from TSCM into GSCM. Additionally, the transition from TSCM to GSCM is associated with tensions that may arise as companies still prioritize the economic goals over the environmental dimensions. This paper will investigate the potential tensions and conflicts GSCM barriers may cause between various stakeholders. Therefore, the goal of this paper is to explore what the pressures are for companies to implement green supply chain management, what drives or prevents companies from adopting GSCM. To accomplish this task, literature is reviewed, focusing on theories, tensions, drivers, and barriers that are related to the field of GSCM.

### KEYWORDS:

Green supply chain management; institutional theory; stakeholder theory; resource-based view theory and tensions

### 1. INTRODUCTION

Global warming, the scarcity of natural resources along with many other phenomena enforced governments and international bodies to play a more serious role towards the sustainability of the environment. The rapid increase of demands in the manufacturing sector has led to an increase in supply chain activities. Increasing supply chain activities are usually associated with waste generation, pollution, depletion of natural resources, climate problems, and disruptions in the eco-system (Kamalakanta Muduli et al., 2013). Due to an increase in customer and government awareness, environmental sustainability has become a key area of focus in recent business agendas (Ghadge et al., 2017). Thus, greening the supply chain is increasingly becoming a

concern for many organizations as they are beginning to realize that environmental management is a key strategy that has the potential to create a lasting impact on organizational performance (Diabat & Govindan, 2011). In this regard, the term green supply chain management (GSCM) has become increasingly popular in the last few years and an area of research interest. GSCM has emerged as an important organizational philosophy to achieve profit and market share goals by reducing environmental risks and impacts while improving the ecological efficiency of these organizations and their partners (Diabat et al., 2013; Qinghua Zhu et al., 2008). Therefore, companies are aiming to implement green practices in their business not only due to concerns about environmental sustainability but also to improve their overall performance, develop competitive advantage, and enhance their image positively (Ghadge et al., 2017). The concept of GSCM implies integrating environmental consideration within tradition SCM, including product design, procurement and supplier selection, manufacturing and production

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process, logistics and the delivery of the final product to the consumer, with the end-of-life management of the product (Emmett & Sood, 2010). According to Hervani et al. (2005), GSCM is the summation of green purchasing, green manufacturing/materials management, green distribution/marketing, and reverse logistics. However, Srivastava (2007) argues that GSCM has its roots in SCM and the environmental management literature and can be defined as “*integrating environmental thinking into supply chain management, including product design, material sourcing, and selection, manufacturing processes, delivery of the final product to the consumers as well as end-of-life management of the product after its useful life*”.

Businesses in return found themselves on the spotlight to make radical changes in their practices in order to fit into the 'green' era. Greening the supply chain starts by both external and internal pressures from various stakeholders. These pressures demand companies change their traditional practices to more environmentally friendly activities. Additionally, while initiating GSCM in TSCM, many obstacles can arise, and it can lead to negative impacts. These obstacles that block or prevent the implementation of GSCM are known as "barriers", and industries must equip themselves to eliminate them. However, it is difficult to remove all barriers simultaneously. Therefore, industries must identify the barriers that need to be dealt with in the initial stages of GSCM implementation. To implement GSC, no process can be managed in isolation. Thus, tensions can arise from integrating environmental activities into business practices and organizations may experience tensions related to GSCM implementation among various stakeholders.

With the aforementioned in mind, the primary objective of this paper is to create a framework that shows the factors that pressure, motivate and hinder companies to move from traditional practices to green activities.

## 2. LITERATURE REVIEW

The literature review focuses on theories, tensions, drivers, and barriers that are related to the field of GSCM.

### 2.1 Organizational theory and GSCM

The field of GSCM includes some theoretical foundation. A general view of some organizational theories that have been applicable in the GSCM literature will be discussed. Many theories in the literature were employed to explore the topic of GSCM; three theories have been observed to be the vital theoretical pillars within the GSCM literature namely, institutional theory, stakeholder theory, and resource-based view theory. These theories are used to understand the transition process from TSCM into GSCM. The use of these theories is well-established in previous literature, since they are the most cited and used theories in Green SCM field. We now provide an overview for each of the mentioned theories in the following subsections.

#### 2.1.1 Institutional theory

In this subsection, we explore the GSCM implementation from an institutional perspective, as Supply Chain Management is surrounded by multiple stakeholders and making decisions regarding the implementation requires an investigation of the institutional environment. The business strategy of firms is influenced by its institutional environment, and the external pressures that stem from customers, regulators, suppliers, media, competitors, and community groups are forcing firms to integrate environmental practices into their entire business process (DiMaggio & Powell, 1983). Institutional theory investigates the influence of external pressures on organizations. Sometimes these pressures are considered to be motivating factors that lead firms to adopt GSCM (Zhu et al., 2013). Institutional pressure encourages firms to adopt similar strategic actions to develop their external legitimization (Darnall et al., 2008). Where legitimate businesses are those businesses “*whose actions are seen or presumed to be desirable or appropriate within some socially constructed system of norms, values, beliefs, and definitions*” (Darnall et al., 2008). Organizations within the same industry that can adapt to the norms and similar kinds of institutionalized practices are rewarded through increased legitimacy, resources, and survival capabilities (Tate et al., 2011). Jennings and Zandbergen (1995) argue that institutional theory aims to explain how consensus is built around the concept of sustainability and how sustainability practices are developed and spread between organizations. Lee et al. (2013) argue that institutional theory offers a useful research framework for exploring how external factors influence firms to adopt environmental practices. In general, the institutional theory emphasizes that companies adopt initiatives for gaining legitimacy or social acceptance (Zhu & Sarkis, 2007). Firms' strategic choices are taken in relative to the requirements of the institutional environment pressures, under these pressures, stakeholders force firms to implement environmental practices, to adjust their business models and to reallocate their resources (Wu et al., 2012). But in case there is no institutional environmental pressure, organizations may not allocate their resources to environmental practices. Under intense institutional environmental pressures, firms will respond to their stakeholder's requirements and use their resources efficiently and devote themselves to implement green practices in an appropriate way (Wu et al., 2012). Tate et al. (2011) point out that institutional theory is relevant to the implementation of environmental activities as firms function in a way that meets social and legal expectations.

#### 2.1.2 Stakeholder theory

Currently, Organizations implement GSCM to respond to pressures that stem from different stakeholders. Stakeholders can affect the practices of organizations by exerting pressures on them (Kassinis & Vafeas, 2006). Organizations face various stakeholder pressures that are quite challenging to manage. Thus, the relationship between different

stakeholders and the company needs to be clearly understood. The theory of stakeholder has been investigated in much research. In 1984, Edward Freeman published his book, *Strategic Management: A Stakeholder Approach*. Since this book was published, Freeman has been considered as one of the leaders behind the stakeholder theory. A stakeholder is “any group or individual who can affect or who can be affected by the achievement of an organization's objectives,” including customers, employees, governments, investors, suppliers, communities, etc. (Freeman, 1984, as cited in Sarkis et al. (2011)). According to Freeman, “stakeholder theory states that for any business to be successful it has to create value for different parties (stakeholders), and we cannot look at any one of those stakes in isolation, their interest has to go together and the job of a manager or an entrepreneur is to figure out how the interest of those stakeholders go in the same direction.” Clarkson (1995) defined stakeholders as “persons or groups that have, or claim, ownership, rights, or interests in a corporation and its activities, past, present or future.”

Stakeholder theory states that organizations produce externalities that influence many groups (stakeholders), which are both internal and external to the organization (Sarkis et al., 2011). Externalities arise when the production of a good or service results in some costs, such as pollution damage, and they usually lead stakeholders to add pressures on firms to reduce the negative impact and focus on the positive one (Henriques & Sadosky, 1996; Sarkis et al., 2011). In 2004, Freeman revisited the stakeholder theory and suggested that organizations maximize their shareholder's values, but they must focus on their stakeholder's interests and expectations as well (Freeman, 2004). In other words, companies are accountable to more than just their shareholders; they are accountable to their stakeholders as well.

The literature identifies various types of stakeholders that bring pressures for environmental practices and force companies to implement green activities (Meixell & Luoma, 2015). Basically, not all stakeholders are equal, some stakeholders are less important to business than others, and this situation has led to various categorizations to group stakeholders. For example, Barrena Martínez et al. (2016); Max (1995) categorized stakeholders into primary and secondary groups, depending on their nature and their relationship established with the organization. Primary stakeholders are groups seen by the business to be vital to the organization; they are characterized as having a direct influence on the business and having a formal contract with the organization (employees, suppliers, shareholders, etc.). According to Clarkson (1995) “primary stakeholder groups are typically comprised of shareholders and investors, employees, customers and suppliers, together with what is defined as the public stakeholder group: the governments and communities that provide infrastructure and the markets, whose laws and regulations must be obeyed, and to whom taxes and other obligations may be due.”

Secondary stakeholders are groups who are not directly engaged in the economic activities of the organization and not having a contractual relationship with it. Secondary stakeholder groups are defined as “those who influence or affect or are influenced or affected by, the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival,” for example, media and other interest groups (Clarkson, 1995).

### 2.1.3 Resource-based view

As was mentioned, companies face various stakeholder pressures that are quite challenging; such pressures require firms to understand the importance of responding to different stakeholders in order to develop company competitive situation (Sarkis et al., 2010). At the same time, companies are required to manage the heterogeneous perspectives and the conflicting interests of their stakeholders, which requires them to develop a specific capability to manage these pressures (Rueda-Manzanares et al., 2008; Sarkis et al., 2010). For managing such pressures, the resource-based view of the company assumes that firms need to have the necessary capabilities and capacities in order to compete more effectively (Sarkis et al., 2010). Thus, organizations need to build the necessary capabilities for responding to various pressures.

The resource-based view (RBV) is a theory that is concerned with a company's strategies given their internal resources and capabilities (Lee et al., 2013). The RBV explains that sustainable competitive advantage is achieved through valuable, firm-specific resources (and capabilities) that rare, imperfectly imitable and non-substitutable (Barney, 1991). Research on the RBV theory focuses on the firm's skills, abilities, and knowledge (Coates & McDermott, 2002). The RBV investigates the firms' resources and capabilities that can help to create high rates of return and a sustainable competitive advantage (Sarkis et al., 2010). The focus is on internal resources available and developed within the company—not those obtained externally. (Resources and capabilities that can be acquired externally are not a source of sustained competitive advantage) (Coates & McDermott, 2002).

In the context of the RBV, company resources include all the assets, capabilities, processes, and knowledge within the company (Coates & McDermott, 2002). According to Barney (1991), resources are the source of competitive advantage. The term “resources” points out tangible and intangible assets. Tangible assets such as equipment, raw material and technology and intangible assets such as knowledge and employee skills, and customer loyalty. Labeling everything as a resource limits the concept of the theory, so a distinction between resources and capabilities is essential (Gavronski et al., 2011). The term resources was redefined as “the input to the production process such as capital equipment, skills of individual employees, finance and so on”, whereas, the term “capabilities” were redefined as “the capacity of a group of

resources to perform some task or activity” (Gavronski et al., 2011).

Similarly, Makadok (2001) emphasizes the distinction between resources and capabilities. The author defines capability as “an organizationally embedded firm-specific nontransferable resource that enhances the productivity of the firm’s other resources.” In short, capability refers to a company capacity to deploy resources. Therefore, capabilities are linked to the sustainable competitive advantage because they are harder to imitate or buy than the resources on which they are based (Gavronski et al., 2011).

### 2.2 Tension

The term sustainability points to interconnected and interdependent economic, environmental, and social concerns (Hahn et al., 2015). The integration of sustainability into supply chain management starts by focusing on combining “environmental” activities with supply chain management practices (Ahi & Searcy, 2013). Approaching the supply chain with green activities, clearly, indicates the increased attention given towards society and the environment (Ivascu et al., 2015). Moreover, the concept of “go green” has now widely grown onto the more established “sustainability” concept, which refers to a more general view of social, economic, and environmental concepts. This section seeks to explore tensions that are related to sustainability with a focus on tensions that relate to environmental activities.

Sustainability includes several contradictory yet interrelated elements, and it is associated with multiple tensions as firms are required to balance their economic, social, and environmental objectives (Van der Byl & Slawinski, 2015). Sustainability tensions may arise when at least two of the three goals of sustainability (social, economic, and environmental) are conflicting. For instance, one is increasing, which causes a worsening of another (decreasing) (Daddi et al., 2019). The triple bottom line only identifies and demonstrates the three dimensions of sustainability; it does not systematically address the relationship between these aspects (Hahn et al., 2015). Therefore, sustainability is a complex process, because of tensions that might arise between economic, social, and environmental objectives (Hahn et al., 2015), between short-term profitability and long-term environmental objectives (Slawinski & Bansal, 2015), and between the different interests of stakeholders (Hahn et al., 2015; Slawinski & Bansal, 2015). According to Tura et al. (2019) “tensions are usually understood as negative consequences, such as strain and conflict, that result from contradictory goals and interests between collaborating actors, and can hamstring, aggravate, or even break up business relationships and network partnerships.”

When companies work on optimizing their economic performance, tensions might arise with social and environmental performance, in other words, trade-offs might appear when organizations prioritize economic perspectives over social and environmental dimensions (Van der Byl & Slawinski, 2015). Trade-offs in sustainability refer to

situations where economic, social, and environmental dimensions cannot be carried out simultaneously (Van der Byl & Slawinski, 2015). At the same time, prioritizing social and environmental gains over economic perspectives is contrary to the win-win approach, and be considered as a win-lose approach. In short, the tensions focus on contradictory pressures, goals, or motivations with conflicting objectives and interests that can lead relationship or network partners apart (Tura et al., 2019).

### 2.3 GSCM drivers

This section focuses on the literature that addresses the main motivating factors in implementing green supply chain management (GSCM). The literature provides various research and case studies on GSCM drivers. Drivers, enablers or pressures of green supply chain are those factors whose existence motivates the manufacturing industries to implement GSCM practices to reduce or eliminate the environmental impact of the whole supply chain (Tseng et al., 2019). As it was mentioned before, GSCM concerns with the environmental issues and resource utilization efficiency in the entire supply chain and that makes it different from the traditional supply chain. Sustainable or green supply chain is considered as a way for many organizations to gain a competitive advantage. Therefore, investigating the drivers of implementation of the GSCM initiatives is critical for the organizations. In this section we will conduct a literature review to identify the drivers that stand behind the implementation of GSCM in companies.

Zutshi and Sohal (2004) did research in Australia to identify the critical success factors for successful implementation of an environmental management system. They found that, top management leadership as well as learning and training of employees are critical for successful adoption of environmental management system.

Zhu and Sarkis (2006) initiated a study to investigate drivers of GSCM in China, focusing on three different sectors, the automobile industry, the thermal power plants, and the electronic/electrical industry. They observed that Chinese companies tend to have higher environmental awareness after China’s entry to WTO, which could be a major driver and pressure for implementation GSCM. Their results show that the automobile industry has the strongest drivers and pressure to adopt GSCM, however the practice level is low. They suggested that the automobile industry has a good opportunity to gain a competitive advantage by integrating environmental consideration into the industry which is considered as a motivation factor in implementing GSCM. Zhu and Sarkis (2007) expanded their research in the automobile industry within China. Their studies brought that regulatory and market pressure are the main drivers for GSCM practice adoption and improve the environmental performance of organizations.

Studer et al. (2006) examined the incentives that engage Hong Kong businesses with voluntary environmental initiatives. The research was based on a questionnaire survey among

SMEs in Hong Kong. The results show that most SMEs are only willing to adopt environmental practices if they face some kind of obligation, either through legislation or as a result of customers or stakeholders demands.

Through conducting interviews from seven different organizations (public and private) in the UK, Walker et al., 2008 explored drivers which encourage to implement green supply chain management practices. They classified drivers into internal and external factors. Internal drivers include organization internal factors and supplier's environmental compliance requirements. While external drivers include regulation, customers expectation, competition, and society. These findings appear to match later study conducted by M.Lo (2013) in the high-tech industry of Taiwan. M. Lo (2013) stated that drivers to go green can be either internal such as reputation, cost and support from top management or external which include legislation, customers and competitors.

Holt and Ghobadian (2009) examined the extent and nature of greening the supply chain in the UK manufacturing sector. The authors' findings suggest that legislative drivers exert the most perceived pressure on manufacturing organizations. They concluded that Environmental Attitude (EA) is a key predictor of GSCM activity, and the engagement of managers is crucial to driving forward an internal environmental culture.

Zhu, Geng, Fujita, and Hashimoto (2010) investigated nine large Japanese manufacturers to examine GSCM implementations and drivers. They found out that Japanese laws and policies on reuse, recycling and recovery are critical and main drivers for these GSCM practices implementation. Diabat and Govindan (2011) identified eleven types of drivers of GSCM based on literature review and developed a model of the drivers affecting the implementation of GSCM using an Interpretive Structural Modeling (ISM) framework through an Indian case study. They concluded that green design, integrating quality environmental management into planning and operation process, reducing energy consumption, and reusing and recycling materials and packing drivers are at the top level of the ISM hierarchy.

A question was asked by Hoskin (2011) "why business needs to green the supply chain?" investigating the drivers and barriers for SMEs in New Zealand. His research considered the pressure from a large customer as the most important driver for SME environmental improvement. Whereas government legislation is a key external driver. He added another several drivers that improve environmental performance such as education of business owners and managers, material assistance for SMEs because SMEs invariably lack resources.

Huang et al. (2017) collected and analyzed data from 380 manufacturers in the electrical and electronic industries in Taiwan and found that the pressure from the local government, global restrictions and competitors encourage companies to adopt GSC practices in its activities. On the

other hand, they indicated that managers have a significant positive effect on the green supply chain practices, in terms of internal drivers.

Fertilizer and construction industry play an important role in Indian economy and are also a major cause for pollution and degradation of the environment (Singh, Jawalkar, & Kant, 2018; Mathiyazhagan, Datta, bhadauria, Singla, & Krishnamoorthi, 2018). From the Indian construction industries Mathiyazhagan et al., (2018) identified 27 drivers (under 7 categories) from the literature review and used AHP approach to rank these drivers based on judgements of industrial experts. The results show that government driver was identified as a topmost priority among the driver categories followed by market, supplier, customer, internal driver and environment. On the other hand, Singh et al., (2018) conducted a study using ISM model. They concluded that the government regulatory system and top management support play a critical role in implementing GSCM practices. Recent research by Ahmed & Najmi (2018) in Pakistan found that the leadership and institutional pressure have a significant influence on firms' internal green practices and external green collaboration.

### 2.4 GSCM Barriers

While there are several factors that drive industries to adopt environmentally sustainable practices, some forces hinder the motivations of organizations to implement GSCM. This implies that moving towards the green era is a complex and wide-ranging task (Da Silva et al., 2018; Mathiyazhagan et al., 2013). The factors that block or prevent the implementation of GSCM are known as "barriers". Although manufacturing industries may understand the importance of environmental initiatives, due to some hurdles, it could be difficult to put them into practice. Barriers limit the ability of companies to adopt the green concept and negatively impact GSCM adoption. Industries face a lot of barriers while implementing GSCM, and it's not an easy task to eliminate all barriers; however, if the dominant barrier is identified, it can be taken care of (Soda et al., 2017). Hence, industries must identify barriers that pose the biggest obstacles, as identifying and assessing the impact of these barriers on green practices could help industries prioritize the necessary steps required to eliminate/mitigate these obstacles (Balasubramanian & Shukla, 2017; Mathiyazhagan et al., 2016).

Wooi and Zailani (2010) investigated the barriers that impede SMEs in Malaysia to implement green supply chain practices and found that resource and technical barriers are the key obstacles that hinder the implementation of green supply chain initiatives.

Collins et al. (2010) initiated a survey to determine the barriers to companies in adopting environmental and social practices in New Zealand, and the result shows that costs, management time, and knowledge/skills ranked as the three top barriers.

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In the UK public sector organizations, Walker and Brammer (2009) investigated various factors that either hinder or motivate sustainable procurement practices. The study reported financial pressure and perception that sustainable procurement is costly are the most salient impediments to the implementation of sustainable procurement.

Elbarkouky and Abdelazeem (2013) identified various factors that either motivate or impede construction industries to implement GSC in developing countries with a focus on Egypt as an example. They found that lack of societal awareness, lack of regulations for recycling and remanufacturing of materials, and lack of green suppliers are the main top barriers that hinder the implementation of the environmental practices.

Mehrabi et al. (2012) used the Analytic Network Process (ANP) to find the influential barriers in implementing of GSCM in the petrochemical industries in Iran, and the results indicated that the lack of understanding among supply chain stakeholders is the most important barrier.

Mathiyazhagan et al. (2013) developed ISM model with 26 barriers, based on literature review and discussion with experts, aiming to identify which barrier is acting as the most dominant one for the implementing of GSCM in Indian auto component manufacturing industries. The result showed that the dominant barrier to GSCM implementation is the problem in maintaining environmental awareness among suppliers.

Govindan et al., 2014 expanded their investigation to various industries in South India and identified 47 initial barriers, under five categories based on a literature review and discussion with industrial experts. Through the Analytical Hierarchy Process (AHP), the scholars found that the technology barrier category was the leading barrier, followed by outsourcing, financial concerns, and knowledge barriers.

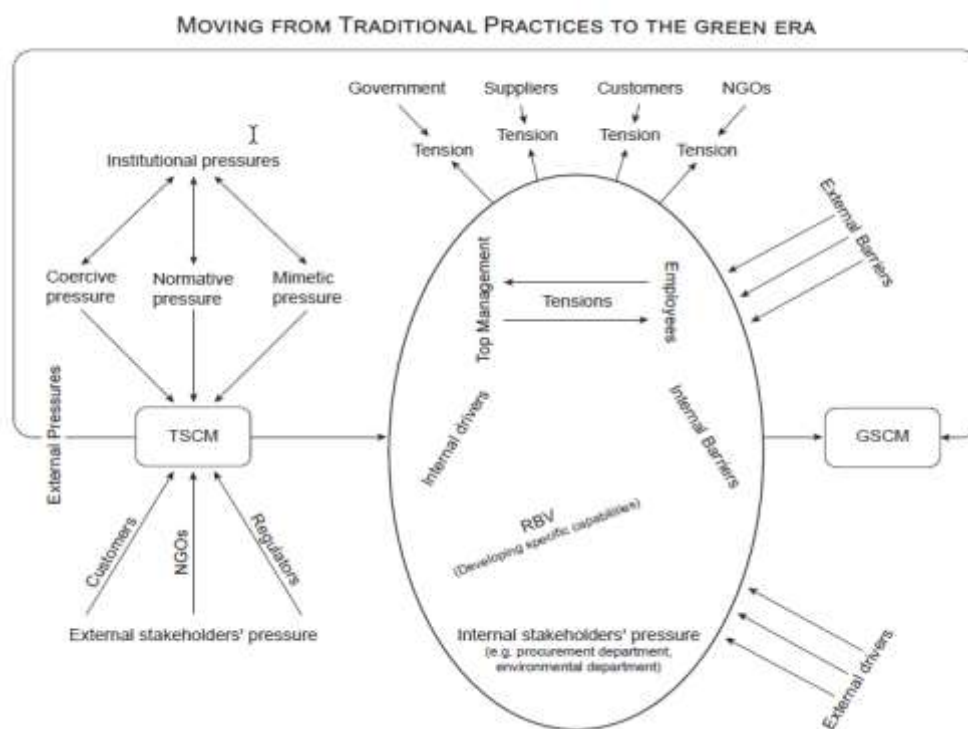
In order to explore what will drive Brazilian automotive industry to implement GSCM practices, Drohomerski et al. (2014) conducted a study to explore the main motivating factors and difficulties in adopting environmental practices by three car manufacturers. The authors concluded that the main barriers are the cost of implementation and the resistance of suppliers to implement certain clean technological practices for products because of the initial costs of implementation.

Rauer and Kaufmann (2015) investigated barriers that Western green-tech manufacturers experienced with their Western, first-tier suppliers, as the green-tech suppliers purchased their components from Chinese suppliers. The main purpose of the study was to investigate the external barriers that multi-tier supply chain partners face. The study found that it is difficult for firms to guarantee that its multi-tier supply chain partner is adopting the environmental standard, which means that sub-supplier management can be more complex and difficult than supplier management.

Wang et al. (2016) moved on to investigate the key barriers to the implementation of GSCM from the food packaging industries perspective in an Indian context by using the DEMATEL method. The study shows that Indian packaging industries have inadequate training regarding the green concept.

### 3 CONTENT ANALYSES AND FRAMEWORK

The main purpose of exploring some organizational theories in the GSCM literature, tensions, drivers, and barriers that hinder the implementation of environmental practices is to develop a conceptual framework to understand the transition process from TSCM to GSCM. The multi perspective framework is presented in **Figure 1**



Source (Author)

#### **4 TOWARDS A GSCM MULTI-PERSPECTIVE FRAMEWORK**

Pressures that emerge from internal and external stakeholders are considered one of the most relevant factors influencing a firm green initiative (Govindan & Bouzon, 2018). Accordingly, organizations implement environmental practices to respond to both external and internal pressures. A primary motivation for developing this framework is to show the internal and external factors that companies might face during moving to the green era. The theoretical framework of this paper was adopted from institutional theory, stakeholder theory and resource-based theory. These theories help to understand the movement towards the green concepts.

#### **5 DISCUSSION**

In this section, the theoretical foundation, tensions, drivers, and barriers presented in earlier sections will be discussed in the context of green perspectives.

##### **5.1 Institutional pressure promotes GSCM practices**

Institutional theory investigates how external pressures influence a firm to implement an organizational practice (Hirsch, 1975). Sarkis et al. (2011) argue that institutional theory is very useful to investigate how a firm addresses green issues because of external pressures, and, therefore, it has become the main research direction to study environmentally related practices.

According to DiMaggio and Powell (1983), institutional theory investigates the causes of isomorphism, and it explains the answer to the question “what makes organizations so similar?” The term “isomorphism” refers to a constraining process whereby an institution changes to resemble other institutions facing the same environmental conditions. In other words, it’s a kind of similar processes between companies under similar constraints. Thus, institutional isomorphism helps firms to adopt similar structures, strategies, and processes in order to face uncertainty and align with institutionalized expectations (DiMaggio & Powell, 1983). The institutional theory posits that organizational environments may be influenced by three types of pressures that lead to organizational isomorphism namely, coercive, mimetic and normative isomorphism (Cai et al., 2008; DiMaggio & Powell, 1983, 2000; Zhu et al., 2013).

##### **5.1.1 Coercive pressures**

These pressures stem from a variety of sources like government, investors, laws, partners who have influence power in the market (Cai et al., 2008; DiMaggio & Powell, 2000). Coercive pressures are defined as “formal or informal pressures exerted on organizations by other organizations upon they are dependent (DiMaggio & Powell, 2000). Informal pressures may result from the cultural forces and expectations of a community or environment in which the firm operate, whereas formal pressures stem from

government laws and regulations related to issues such as pollution controls (Masocha & Fatoki, 2018).

Rivera (2004) argues that coercive pressures usually forced by governments, in which firms are required to follow specific actions, or else they will be under legal sanctions. For instance, government agencies represent powerful institutions that may coercively affect the behavior of an organization, though, for example, penalties and trade barriers (Sarkis et al., 2011). In short, coercive pressures stems from other organizations in which the firm is dependent (e.g., governmental agencies, headquarters, important customers) and this fact indicates that coercive forces are very important factors that lead to GSCM implementation.

In the context of GSCM implementation, Cai et al. (2008) found that coercive pressures mainly come from regulatory forces. According to Zhu et al. (2013), internal governmental regulations, as well as international regulations, have caused increased institutional pressure for improved environmental management by Chinese companies. Additionally, organizational change management may be done as a response from government pressure (coercive pressure) in order to follow environmental criteria. In this research, environmental regulations are considered as a coercive pressure exerted on firms to adopt GSCM, and this approach shows how important coercive pressures are as forces that lead to environmental management practices.

##### **5.1.2 Normative pressures**

Organizations are influenced by normative pressures; sometimes, these pressures arise from external forces like media, non-governmental organizations, or consumers (A. Ball & Russell Craig, 2010). Normative pressures “arise from values and standards of conduct promoted by professional networks, industry associations, and academic institutions” (Rivera, 2004; Tate et al., 2011). Mainly, this pressure stems from external stakeholders (e.g., professional environmental groups, and the International Organization for Standardization (ISO) who have an interest related to the organization's environmental practices (Yang, 2018; Zhu & Sarkis, 2007). In the context of GSCM, socially related demands such as those for green products from the customers and the markets form the core normative pressures to adopt the green practices (Sarkis et al., 2011; Zhu et al., 2013). In developed countries like Canada and England, normative pressures mainly stem from consumer ethical values and ecological thinking (Amanda Ball & Russell Craig, 2010; Sarkis et al., 2011). In developing countries such as China, exports, and sales to consumers in developed countries are two important drivers that encourage organizations to implement GSCM practices (Sarkis et al., 2011). The sustainability standards of firms may also force their suppliers to implement green practices, which means that suppliers are also among the main players for these pressures (Tate et al., 2011).

### 5.1.3 Mimetic pressures

Implementing GSCM is associated with uncertainty because of unclear economic payoffs. Under uncertainty, when identifying their processes and structures, firms look towards other firms. It usually happens when firms are uncertain about goal ambiguity, have a poor understanding of organizational technologies, or when the environment creates symbolic uncertainty, they copy the procedures and structures of those firms that have successfully adapted to the environment (DiMaggio & Powell, 1983; Yang, 2018). If competitors who have implemented GSCM are perceived favorably by customers, other firms in the same field will also implement GSCM (Yang, 2018). Through imitation, organizations may rely on the actions of successful competitors to repeat their success story (Cai et al., 2008; DiMaggio & Powell, 1983; Zhu et al., 2013). Mimetic institutional pressure occurs when firms copy and imitate competitors merely because of their success, and, therefore, becomes a standard response to deal with uncertainty (DiMaggio & Powell, 1983). In developed countries like France, Germany, and Canada, imitation has a significant role in the adoption of GSCM related activities (Sarkis et al., 2011). In the context of developing countries, globalization plays a significant role for organizations to learn from their foreign competitors to implement green practices (Sarkis et al., 2011). This fact indicates that mimetic pressures have an important role in driving organizations to avoid uncertainty. Jennings and Zandbergen (1995); Yang (2018) point out that mimetic pressures are demands that firms face to appear legitimate and competitive, and such mimetic pressures play a significant role in the diffusion of practices; good practices spread because of competitive pressure.

### 5.2 Stakeholder's pressure

Stakeholder theory has been widely used in environmental research (Govindan & Bouzon, 2018). The firm's stakeholders play an important role in motivating, and hindering, sustainability in SCM. The theory mentions that "companies produce externalities that influence many groups (stakeholders), which are both internal and external to the firm" (Sarkis et al., 2011). Various classifications have been used to categorize stakeholders. Sarkis et al. (2010) classified stakeholders into internal and external groups. Internal stakeholders have an operational role in the company, including employees, directors, board, management, etc. Employees are stakeholders that impact or are impacted by the company, and they are the source of a company's success. In addition, successful environmental policy planning requires employee's participation (Buzzelli, 1991). Additionally, top management support plays an important role in implementing environmental practices. Azzone et al. (1997) argued that managers environmental awareness could help firms to overcome the complexity of "green" actions to achieve significant environmental core competencies. Therefore, employee and managerial stakeholders (internal stakeholders) have important roles in pressuring the company to implement environmental activities, which can result in a

virtuous circle of proactive environmental strategies (Sarkis et al., 2010).

In this section, the focus will be on external stakeholders because they have the most influence affect to force companies to implement environmental practices (Sarkis et al., 2010).

External stakeholders are not direct members of a firm but can affect or be affected by its operation, including customers, government regulators, the community, etc. External stakeholders can regulate or influence public opinion towards or against, the company's environmental activities (Sarkis et al., 2010). In the context of environmental issues, the regulatory bodies and government stakeholders play a significant role in pressuring companies to adopt environmental practices (Freeman, 2004). According to Sarkis et al. (2010), firms must follow the environmental regulations to avoid legal sanctions, and in order to protect their public image and customer relations. Another source of external stakeholder pressures can be represented in non-governmental organizations and the community; such stakeholders groups include media, environmental parties, and labor unions (Sarkis et al., 2010). Again, each of these groups has the capacity to mobilize public opinions in favor of, or opposition to, the organization's green practices. In addition, companies that will not follow these stakeholder pressures, risk facing public protests (Sarkis et al., 2010). Similarly, Gunningham et al. (2004); Sarkis et al. (2010) argue that community groups and nongovernmental organizations play a significant role in pressuring organizations to adopt green practices through diffusing public information that can affect consumer decisions to choose products from competitors that meet the environmental criteria.

In a similar study, Kassinis and Vafeas (2006) studied the relationship between stakeholder pressures and firm environmental performance with a focus on both community and regulatory stakeholders (government and legislatures), particularly in terms of the ability of communities and regulators to affect company environmental performance. The authors observed that governments and legislatures could pressure companies to take on environmental protection initiatives as part of the way they operate the business. Accordingly, environmental regulations by governments and legislatures have an important influence on firms to reconstruct their strategic approaches accounting for the environment. With respect to community stakeholders, the authors categorized community stakeholders into three groups: (i) community income- Those stakeholders who are wealthy, (ii) community population density- those stakeholders who live in densely populated areas, and (iii) community environmental preferences- Those stakeholders who care about the environment. The result showed that the three groups exert stronger pressures on firms to embrace environmental practices.



According to Delmas and Montiel (2007) organizations which are looking for developing their environmental performance must focus on the performance of companies in the upstream level of their supply chain. For instance, suppliers who do not show interest in environmental performance could affect the image and the reputation of customers who buy their products. Therefore, corporate customers stakeholder could pressure their suppliers to implement better environmental management practices by providing them with certified certification showing their compliance with all environmental regulations (e.g., ISO 14001) (Delmas & Montiel, 2007; Sarkis et al., 2010). These kinds of pressures exist as a result of the fact that corporate customers want to ensure that their purchases follow the environmental criteria.

Customers as an external stakeholder can pressure companies to adopt environmental strategies. Henriques and Sadorsky (1996) observed in their study that customer pressure is positively influencing firm environmental plan. Similarity, Fraj-Andrés et al. (2009) found out that customer pressures can drive managers to have a deeper involvement in environmental protection

### 5.3 The Resource-based view of competitive advantage

In the context of green perspectives, scholars have utilized the RBV theory to examine phenomena related to GSCM practices. Companies nowadays focus on adopting environmental practices to gain competitive advantage (Lee et al., 2013). According to Barney (1991), the company's image and reputation are considered significant resources. The RBV theory is helping to investigate how firms' resources influence internal environmental practices because firms strategies depend on their internal competencies and ability to sustain them (Lee et al., 2013). Creating knowledge and capabilities to adopt green practices is considered a resource, and that fits the concept of the RBV well (Lai et al., 2010; Sarkis et al., 2011). Knowledgeable and skilled personnel are also considered as a vital resource in establishing green supply capabilities (Bowen et al., 2001; Yu et al., 2017).

The RBV theory gives attention to intangible assets; those assets may be more firm-specific and be able to create profit than purchasable resources (Coates & McDermott, 2002). According to Sarkis et al. (2010), companies can build the necessary capabilities through training, because training is considered as an effective tool to increase workforce (human resource) awareness towards the green concept. Training programs can provide employees with new knowledge that will help them to understand how the environment can impact and be impacted by their duties and decisions. Accordingly, developing organizational knowledge within the organization requires developing knowledge capabilities of employees, especially those who are responsible for environmental management practices (Sarkis et al., 2010). Therefore, the tactical capability can be created through developing employees' knowledge and skills via education and training

efforts (Sarkis et al., 2010). Likewise, Coates and McDermott (2002) pointed out that learning and knowledge are fundamental to the development and utilization of resources and capabilities in the RBV theory. According to Coates and McDermott (2002); Teece et al. (1997) capabilities are formed from knowledge, which developed from learning that happens within the organization. Hence, the development of organizational knowledge, is central to the development of dynamic capabilities (Gavronski et al., 2011). The dynamic capabilities perspective has emerged as a complement to the RBV theory to clarify how companies adjust capabilities in rapidly changing markets (Hart & Dowell, 2011; Teece et al., 1997). Dynamic capabilities are an extension of the RBV, which suggest that companies with resources that satisfy VRIN requirements allow them to attain competitiveness (Song & Choi, 2018). Dynamic capabilities are those that can be developed via the internal system; these capabilities relate to organizational learning, which is responsible for developing knowledge resources within the organization (Sarkis et al., 2011). Thus, Dynamic capabilities reflect an organizational ability to develop new and innovative shapes of competitive advantage, given path dependencies and market positions (Teece et al., 1997).

Hart (1995) extended the theory of the RBV to include environmental issues: The Natural-Resource-Based View (NRBV). The author claims that the RBV theory ignored the interaction between a firm and its natural environment, and this omission could create serious obstacles on companies trying to create sustainable competitive advantage (Hart & Dowell, 2011). In other words, Hart (1995) states that "*it is likely that strategy and competitive advantage in the coming years will be rooted in capabilities that facilitate environmentally sustainable economic activity-- a natural resource-based view of the firm.*" The NRBV assumes that firms underinvest in environmental activities and resources (Tate et al., 2011). According to Hart (1995), the NRBV framework consists of three interconnected strategies: pollution prevention, product stewardship, and sustainable development. Pollution prevention aims to stop waste and emissions rather than cleaning them up "at the end of the pipe." This approach can create cost reductions that could be a competitive advantage to the firm (Hart & Dowell, 2011). Product stewardship helps companies to reduce economic and social costs of the products because it expands the scope of pollution prevention to the entire value chain of the company's product systems (Guang Shi et al., 2012; Hart & Dowell, 2011). The last, sustainable development strategy is not limited only to environmental concerns, but it also focusses on economic and social concerns. According to Hart and Dowell (2011), each of those strategies has different environmental driving forces, builds upon different key resources, and has a different source of competitive advantage. From the context of the NRBV, a sustainable competitive advantage relies on the organization related to its environment and firms can create a sustainable competitive

advantage from non-imitable environmental practices, in addition, in order to create sustainable development, organizations should assert product stewardship and the strategic capability of pollution prevention (Tate et al., 2011; Wu et al., 2012).

### 5.4 Tensions around GSCM

As organizational environments get more global, dynamic, and competitive, conflicting interests intensify, which lead to multiple tensions (Smith & Lewis, 2011). Tensions may appear from competing strategies and goals to satisfy contradictory interests and demands of varied internal and external stakeholders. It arises from the need to satisfy multiple stakeholders and result in competing strategies and goals.

To implement GSC, no process can be managed in isolation. Thus, tension can arise from integrating environmental activities into business practices. According to Hahn et al. (2015), tensions may relate to different types of economic, social, and environmental concerns because tensions exist at different levels, requiring change processes and operating in conflicting temporal or spatial settings.

In this paper, we classify tensions into two categories: (1)- Internal tensions: refers to internal struggle inside the company. (2) External tensions: refers to conflicts between the company and external stakeholders.

#### 5.4.1 Internal tensions

At the firm level, conflicting interests arise between internal stakeholders: “managers, employees, and the management, all have different goals and priorities,” it is hard for a company to focus on one stakeholder without getting into problems with the other (van Bommel, 2018). There are opposing yet coexisting roles and values which develop tension of personal vs. organizational interests (Smith & Lewis, 2011; van Bommel, 2018). The transition from TSCM to GSCM can create ambiguity between individuals, especially if the organizational mission is mainly about a profit motive. In other words, some members of the firm are interested in environmental practices while others are more concerned about the financial performance (van Bommel, 2018). For example, when an organizational member tries to address environmental issues that are not a part of the organizational agenda. Thus, there is a risk of disapproval, and this fact shows that personal preferences for sustainability are not necessarily aligned with the organizational sustainability agenda (Hahn et al., 2015). In short, these tensions show that individual and organizational-level preferences may differ while addressing economic, social, and environmental aspects. Similarly, Bansal (2003) argues that the organizational agenda might not be aligned with the belief of individual, organizational members towards some sustainability issues.

Additionally, moving towards the green era, is usually accompanied by tensions related to the organizational change process, which could be related to technology, structural change, or innovation. In other words, there are tensions

concerning different sustainability strategies, tensions regarding the types of innovations and tensions related to different pathways of technological and structural change (Hahn et al., 2015).

#### 5.4.2 External tensions:

On the other hand, companies and external stakeholders may have different demands, leading to tensions. Organizations need to manage each stakeholder interests. For instance, some organizations depend on key suppliers who may dominate critical raw material; such a situation can make organizations feel that implementing environmental practices may lead to increased dependency on those suppliers who might leverage their unique positions to raise prices or influence contract position (Tura et al., 2019). In the context of GSCM, due to the limited number of green suppliers, companies may need to increase dependency on key suppliers who have a dominant role in supplying green material. Increasing dependence on green suppliers can put companies at risk, especially if those suppliers have opportunistic behavior. Thus, tensions may arise between the company and its suppliers.

Changing regulations due to changing political climate can lead to tensions between companies and the government especially in developing countries, as organizations fear that permanently changing political decisions and legislation may negatively influence sustainability implementation (Tura et al., 2019). Furthermore, green products have higher prices compared to traditional products; therefore, firms may charge higher prices from the customer, and this might lead to tensions between the company and its customers.

#### 5.5 GSCM motivating factors.

Drivers of GSCM refers to the factors that motivate the industries to reduce their environmental impact in their supply chain. According to the literature, there are numerous motivations for companies to implement green practices. In this paper, we classify drivers of GSCM based on internal and external factors. Internal driver refers to the driver which does exist inside the company itself. Whereas external drivers refer to external factors that encourage or pressure organizations to adopt environmental practices.

Based on the systematic literature reviews done by Ansari and Kant (2017), Dubey, Gunasekaran, Papadopoulos and Childe (2015) or Schrettle, Hinz, Scherrer-Rathje and Friedli (2014) we can identify Which drivers have the greatest impact on the implementation of GSCM practices. All these researchers agree that government regulations and top management commitment are the most significant drivers both in developed and developing countries. This finding implies that governments play a crucial role in greening the supply chains. Legislation and a threat of fine are a strong driver. EU recognizes this and restricts the use of harmful substances in the products, as well as has several environmental policies to reach various goals in restrained timeframes. Domestic and international laws and regulations are a good source of information for firms' managers, and a great source of

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awareness that in order to preserve the environment for future generations, we must act now. This can serve as an economic incentive to save on penalty fees. However, external forces are not enough for successful implementation of GSCM. An organization must be in sync internally, with support and commitment from top and middle-level management.

As it was mentioned before that GSC drivers represent the factors which support the organization to adopt GSCM

practices. Government regulation seems to have the most influence power for adopting GSC practices, which indicate that the main driver has to come from external pressure. However, there are other factors that encourage businesses to implement environmental criteria in their management system. It is clear that businesses are motivated to apply green initiatives by internal and external pressures.

| Internal drivers for GSCM             | Description  | Literature support   |
|---------------------------------------|--|--|
| Top management commitment             | Leadership role is considered a key driver and the most important internal factor in implementing GSC initiatives. A successful GSC needs to be fully supported by the top management. The mindset of top managers is crucial in the success of GSC practices. | (Zutshi & Sohal, 2004), (Zhu et al., 2007) (M. Lo, 2013), (Holt & Ghobadian, 2009), (Diabat & Govindan, 2011), (Huang et al., 2017), (Singh, Jawalkar, & Kant, 2018) and (Ahmed & Najmi, 2018) |
| Training employees                    | The consciousness of employees about the environment is considered to be a critical factor to implement environmental criteria. Education of business owners and managers and their work encourage companies to go green.                                      | (Zutshi & Sohal, 2004) and (Hoskin, 2011)  |
| Innovation and technological advances | New technologies enable firms to monitor and control their processes more accurately and effectively, minimizing the energy and inputs consumption.  | (Ansari & Kant, 2017) and (Bhattacharya, Jain & Choudhary, 2011)   |
| Lean manufacturing                    | Lean and green share many common goals, therefore it is easier for firms that adopted lean practices to step it up to green practices. Lean manufacturing, similarly, as green manufacturing, wants to minimize the waste during production.                   | (Dües, Tan & Lim, 2013)  |
| Resource optimization                 | Reducing inputs and energy consumptions can provide significant savings, as the cost of raw materials and energies is rising.  | (Bhattacharya, Jain & Choudhary, 2011), (Zarte, Pechmann & Nunes, 2019) and (Mittal et al., 2017)  |
| Health and safety issues              | Good working conditions lead to increased productivity and safety of workers. Costs related to sick leave and labor turnover are reduced, as the ability to retain employees improves. Happy employees are motivated and productive employees.                 | (Diabat, Kannan & Mathiyazhagan, 2014) and (Carter & Rogers, 2008)   |
| Green corporate image                 | Corporations that are more in the attention of media and public tend to feel a bigger pressure to act greenly to preserve their reputation and brand image. Such corporations are also often more successful in attracting and preserving talent.              | (Zhu et al., 2010), (Nawrocka, 2010) and (Kapetanopoulou & Tagaras, 2011)  |
| Economic incentives                   | Awareness of firms that the adoption of GSCM leads to financial savings in forms of reduced costs, higher revenues and profitability acts as a driver, as, of course, companies strive for high profits.   | (Govindan, Muduli, Devika & Barve, 2016), (Kapetanopoulou & Tagaras, 2011) and (Dubey, Gunasekaran, Papadopoulos & Childe, 2015)   |
| Increased market share                | Adoption of GSCM opens new doors for companies, esp. on the international highly competitive market, attracts new customer base, and thus increases its market share.  | (Dubey, Gunasekaran, Papadopoulos & Childe, 2015)  |

| External drivers                 |  |  |
|----------------------------------|--|--|
| Government rules and legislation | Government regulations and legislation are representing the main drivers of the GSC practices. Government strengthens environment regulations to encourage companies to implement environmental initiatives. The pressures coming from the government affect the firms and drive them to limit greenhouse gas emissions and limit the use of nonrenewable resources. | (Mathiyazhagan, Datta, Bhadauria, Singla & Krishnamoorthi, 2018), (Walker, Di Sisto, & McBain, 2008) (Zhu et al., 2007), (Studer et al., 2006), (M. Lo, 2013), (Holt & Ghobadian, 2009), (Zhu et al., 2010), (Hoskin, 2011), (Huang et al., 2017) and (Singh et al., 2018) |
| Customer awareness               | The environmental awareness of the customer is considered to be a strong driver for green initiatives. Customer awareness of the negative impact of certain products/services on the environment pushes firms to produce environmentally friendly products and adopt GSC initiatives.  | (Mathiyazhagan et al., 2018), (Studer et al., 2006), (Walker et al., 2008), (M. Lo, 2013) and (Hoskin, 2011)   |
| Green initiatives by competitors | Competition among competitors plays an important role in implementing GSCM initiatives. Competition and gaining competitive advantage are a clear driver for adopting GSCM practices.  | (Walker et al., 2008), (Huang et al., 2017) and (M. Lo, 2013)  |
| Collaboration with suppliers     | The selection of suppliers is an important decision for firms adopting environmental practices and the materials should be obtained from green suppliers who develop environmental strategies. However, there was a lack of previous research that identified suppliers as a key driver of GSC practices.  | (Mathiyazhagan et al., 2018), (Walker et al., 2008) and (Zhu et al., 2007)   |
| Investor pressure                | Activist shareholders might exert pressure on companies to report and decrease their negative impact on the environment.   | (Govindan, Muduli, Devika & Barve, 2016)   |

**5.6 GSCM Impeding factors**

Again, we classify GSCM Barriers based on internal and external factors. Internal barriers refer to the obstacles that exist inside the organization itself and prevent the implementation of GSCM. The most common internal barrier to adopt GSCM observed in the literature is the financial barrier, especially in developing countries. Financial barriers have been reported as a main barrier to GSCM in many articles ( Abdulrahman et al. (2014); (Al Zaabi et al., 2013; Da Silva et al., 2018; Drohomerecki et al., 2014; Dube & Gawande, 2016; Ghazilla et al., 2015; Govindan et al., 2014; Govindan et al., 2016; S. Luthra et al., 2016; Muduli & Barve, 2013; Nigam, 2014; Oelze, 2017; Perotti et al., 2015; Walker & Brammer, 2009; Walker & Jones, 2012; Wooi & Zailani, 2010; Xia et al., 2015). It is self-evident that converting traditional SCM into GSCM requires high initial cost and financial support. Financial resources are the most important requirement for upgrading technology, improving the infrastructure, be informational, invest in R&D, hire highly skilled human resources, and so on. Additionally, cleaner production technology, reverse logistics, green manufacturing, green purchasing, green transportation, adoption of ISO certifications, green design, eco-friendly

packaging and clean disposal techniques are some of the significant drivers of environmental practices and all of these elements require high funds for their implementation (Mudgal et al., 2010).

On the other hand, external barriers in GSCM are those factors that impede the implementation of green practices and organizations do not have control over. Many studies concluded that poor support from the government is a major barrier for moving towards environmental practices. The lack of government support can be explained in several ways which include: the lack of laws and regulation (Sunil Luthra et al., 2011), the lack of government supportive policies towards reverse logistics activities and waste disposal methods (Moktadir et al., 2018), the lack of support from government in terms of incentives, tax rebates, and practices that rewards the adoption green practices (Barve & Muduli, 2013; Elbarkouky & Abdelazeem, 2013; Mathiyazhagan et al., 2017), and the lack of government willingness to invest in green activities e.g. infrastructure (Mathiyazhagan et al., 2017). Hence, government legislation plays an important role in improving environmental performance by introducing new environmental legislation to drive companies to implement the green concept (Ghadge et al., 2017).

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| Internal Barriers for GSCM   | Description  | Literature support   |
|--|--|--|
| Poor quality and lack of skilled human resources in adopting GSCM      | Quality human resources can support companies with new ideas, adopt easily to new systems/technology, use of different techniques to solve problems.                       | (Luthra et al., 2011); (Mathiyazhagan et al., 2013); (Muduli et al., 2013); (Govindan et al., 2014)  |
| Lack of top management commitment in implementing GSCM                 | Top management are not showing interests in green practices.   | (Walker & Brammer, 2009) ;(Mathiyazhagan et al., 2016)   |
| Financial constraint   | The high investment required to implement green practice methodologies such as green design, green manufacturing, green labeling of packing, green technologies.           | (Mudgal et al., 2010) ;(Luthra et al., 2011); (Walker & Jones, 2012); (Drohomeretski et al., 2014); (Jayant & Azhar, 2014); Dhull & Narwal, 2016); (Nigam, 2014); (Dube & Gawande, 2016) |
| Lack of understanding on how to incorporate in purchasing              | Because of the lack of knowledge and understanding, the organizations are deficient in getting the concept of green buying.  | (Walker & Brammer, 2009) ;(Walker & Jones, 2012) ;(Dhull & Narwal, 2016)   |
| Lack of ethical standard and corporate social responsibility           | Absence of moral responsibility that includes a range of social and environmental growth.  | (Mudgal et al., 2010) ;(Balasubramanian, 2012); (Mathiyazhagan et al., 2013); (Elbarkouky & Abdelazeem, 2013);(Govindan et al., 2014)  |
| Lack of training in GSCM/Lack of employees green training              | Training is an essential factor to adopt GSCM system, and it helps to maintain and monitor growth.   | (Balasubramanian, 2012); (Mathiyazhagan et al., 2013); (Govindan et al., 2014); (Barve & Muduli, 2013) ;(Jayant & Azhar, 2014)   |
| Poor and absent of organizational culture                              | Environmental culture and developing environmental management practices are very important factors for adopting GSCM.  | (Mehrabi et al., 2012); (Jayant & Azhar, 2014); (Aragão & Jabbour, 2017)   |
| Fear of complexity to implement  | The environmental practices are too difficult/complex to implement.  | (Balasubramanian, 2012); (Elbarkouky & Abdelazeem, 2013) ;(Majumdar & Sinha, 2019)   |
| The resistance offered by employees to adopt new advanced technology   | Believing that an increase in mechanization may lead to firing and reduction of employment opportunities.  | (Muduli et al., 2013); (Barve & Muduli, 2013) ;(Jayant & Azhar, 2014); (Balon et al., 2016)  |
| Difficulty in transforming positive environmental attitude into action | Although organizations possess environmental behavior, it is not easy for them to put it into actions.   | (Luthra et al., 2011) ;(Govindan et al., 2014); (Kaur et al., 2018)  |
| Fear of changing to a new system                                       | Fear of implementing new systems can lead to fear among employees and can drive them to resist changes.  | (Govindan et al., 2014); (Barve & Muduli, 2013); (Mathiyazhagan et al., 2016); (Kaur et al., 2018)   |
|  |  |  |
| External barriers for GSCM   |  |  |
| Lack of government support system                                      | Government not making industry-friendly policies toward GSCM and not giving benefits to those organizations implementing GSCM.   | (Mudgal et al., 2010) ;(Luthra et al., 2011); (Mehrabi et al., 2012); (Mathiyazhagan et al., 2013); (Govindan et al., 2014) ;(Jayant & Azhar, 2014); (Singh et al., 2016)                |
| Lack of customer demands for green products                            | Customers are not fully aware of green products, which may result in a lack of demand. Uncertainty of market demand for green products affects the implementation of GSCM. | (Mudgal et al., 2010) ;(Balasubramanian, 2012); (Abdullah et al., 2016) ; Dhull & Narwal, 2016); (Dhull & Narwal, 2016)  |
| Lack of government regulations   | Poor government regulations and legislation regarding the  | (Walker & Jones, 2012); (Barve & Muduli, 2013); (Rauer & Kaufmann, 2015); Dhull & Narwal,  |

|  |  |   |
|--|--|---|
|  | environmental responsibility of the industries.  | 2016); (Oelze, 2017); (Mathiyazhagan et al., 2016); (Kaur et al., 2018); (J. Kaur & Awasthi, 2018   |
| International crisis and economic downturn | Recession could affect the decision of implementing the green concept  | (Balasubramanian, 2012); (Balon et al., 2016  |
| Cost of eco-friendly packaging             | The high cost of environmentally packaging could be a major barrier.   | (Zhu & Geng, 2013) ;(Al Zaabi et al., 2013); (Govindan et al., 2014); (Z. Wang et al., 2016); (Movahedipour, Zeng, Yang, & Wu, 2017); (Kaur et al., 2018); (Da Silva et al., 2018); (Sirisawat & Kiatcharoenpol, 2018 |
| The high cost of hazardous waste disposal  | Disposing of hazardous waste is costly because of the threat involved.   | (Zhu & Geng, 2013) ;(Mathiyazhagan et al., 2013); (Al Zaabi et al., 2013); (Govindan et al., 2014); (Jayant & Azhar, 2014); (Z. Wang et al., 2016); (Kaur et al., 2018); (Da Silva et al., 2018)                      |
| Lack of green suppliers                    | Implementing environmental practices, require green materials provided by suppliers. Firms are reluctant to implement green practices if these materials are not available from the standard distribution network. | (Walker & Brammer, 2009) ;(Elbarkouky & Abdelazeem, 2013); (S. Balasubramanian & Shukla, 2017); (Agyemang et al., 2018)   |

## 6 CONCLUSION

The theoretical framework of this paper was adopted from institutional theory, stakeholder theory, and resource-based theory. These theories help to understand the movement towards the green concepts. Organizations implement GSCM to respond to both external and internal pressures. These pressures demand organizations to change the philosophy of their actions. To convert TSCM to GSCM, a change should occur, change that include renewing an organizations direction, structure, and capabilities.

Institutional theory postulate that companies always need to follow their surrounding environment by adhering to government regulations and rules, and therefore, they need to implement environmental practices. Simply, institutional theory shows how external drivers promote green practices. Stakeholder theory posits that firms seek to satisfy all stakeholders in order to meet their expectations. As was mentioned before, there is no more significant challenge for companies than balancing between their traditional practices and the environment. Therefore, organizations face pressures to change the philosophy of their actions. Moreover, such change towards more environmental practices requires the companies to develop specific capabilities. The RBV of the company assumes that firms need to have the necessary capabilities and capacities in order to compete more effectively. Therefore, companies should focus on developing capabilities for responding to various pressure.

While transitioning from TSCM to GSCM, tensions may arise. These tensions can arise from integrating environmental activities into business practices or organizations may experience tensions with GSCM implementation from various stakeholders. In this paper we classified tensions into two types. Internal tensions which

point to internal struggle inside the organization which could be related to technology, structural change, or innovation. Whereas external tensions refer to conflicts between the company and external stakeholders. Increasing the price of the green products could result in a conflict between the company and its customers, thus tension arise. Additionally, instability of the political situation of the country can lead to tensions between companies and the government especially in the developing countries.

Drivers of GSCM implementation can be divided into internal and external drivers. Both groups have a significant impact on the adoption of green practices. From internal drivers, top management commitment was found to be the main enabler that enhanced other drivers as well as practices. Out of the external drivers, government legislation showed to be a strong driver to comply with environmental regulations in order to avoid financial penalties and bad reputation.

It was observed that different industries have different views regarding GSCM implementation. Moreover, as environmental laws and policies vary across countries, it is possible that different countries will have diverse opinions regarding obstacles to GSCM adoption. It is necessary to identify barriers that impede the adoption of GSCM, and industries must equip themselves to understand these barriers and eliminate them.

It should be noted in this context that eliminating all barriers at once is a difficult task but identifying the dominant ones could help companies find an appropriate solution and take the right decision. Moreover, by clearly understanding the barriers, organizations can determine their weak areas and implement strategies to improve these areas, which, in turn, will enhance the effectiveness of green practices.

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