

# CONCEPTUAL MODEL FOR MODERATING EFFECT OF FIRM SIZE ON INSTITUTIONAL PRESSURES AND GREEN SUPPLY CHAIN PRACTICES ADOPTION

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## Abstract

*The concept of Green Supply Chain Management is highly discussed and drawn more attention in contemporary world today. The need of sustainable environment and sustainable organization motivates to draw more attention on Green Supply Chain Practices. Realizing this phenomenon number of researchers developed models to measure the effect of pressures on green supply chain practices adoption. In this study pressures on green supply chain practices are identified as normative pressures, coercive pressures, and mimetic pressures based on institutional theory. Previous studies showed that institutional pressures have significant effect on adopting green supply chain practices. But no single research in supply chain management field to study moderating effect of firm size on pressures and practices of green supply chain management. Therefore this study aims to provide conceptual model to test the moderating effect of firm size in the relationship of institutional pressures and green supply chain practices adoption by filling the identified gap. It is expected that proposed model will be more contributed to enhance the adoption of green supply chain practices by different size of manufacturing companies.*

**Keywords:** Green Supply Chain Management, Institutional Pressures, Firm Size, Green Supply Chain Practices Adoption

## 1. INTRODUCTION

The mounting prominence of the concept of Green Supply Chain Management is being discussing by the researchers today more than ever before. It is because of environmental issues raised through the process of delivering the products to end user. This process involves extraction and exploitation of natural resources (Srivastava, 2007). It becomes one of the main sources of serious environmental problems including global warming and acid rains (Kumar & Chandrakar, 2012). At present much of emphasis has been placed to mitigate global warming by reducing emissions from harmful greenhouse gases (Adopting for Green Economy: Companies, Communities and Climate Change, 2011). The same report further indicates that the leading companies, large and small are paying greater attention to the repercussions of climate change on their business as identified as risk of rising raw material or inputs prices, disruptions of their supply chain, threat to their labor force and changing their customer demand. Therefore most of the organizations tend to accept the green practices as a concern to environmental sustainability. The benefit of adopting green technology for business operations are not limited for the individuals who owns or operates the business but for the other stakeholders as suppliers, customers, and the society. Hence as cited in Abu Seman & Aslinda, 2012 Green supply Chain Management has been progressively accepted

and practiced by forward thinking organizations as an emergent environmental approach in supply chain management.

As an emerging research area, early literature focuses on the necessity of the green supply chain management. It is not merely about reducing the environmental impact, it is further about good business practices and higher profits. In fact, as cited in Srivastava, 2007 it is a driver for creating value not a cost center. As mentioned by Porter & van der Linde, 1995 the reasons for investing on greening is achieving competitive advantages through resource saving, waste eliminating and productivity improvement. Thus the present organizations have set up the wide networks of the suppliers to take advantages of their characteristics to gain the competitive advantage (Lakshmeera & Palanisamy, 2013).

However despite the importance of green supply chain management, it is complex to adopt green supply chain practices due to inter organizational nature (Lakshmeera & Palanisamy, 2013). Many of scholars reveal that reason to complicate of adopting green supply chain practices is because of diversity of inter organizational systems including different stakeholders with conflicting interests. (Jonathan , Klassen. & Jayaraman, 2007). Moving to the empirical studies on key factors or drivers that influence for adopting of green supply chain initiatives, the researcher identifies the different results for the same drivers (Khidir & Zailani, 2011).

Given that, even though the large no of studies have been conducted on the area of adoption of green supply chain practices still it is in the researchable due to contradictory findings ( Bowen, Cousins, Lamming, & Farukt, 2001) (Khidir & Zailani, 2011). Similarly the researcher realizes that there is lack in extant body of knowledge for moderating effect of firm size in relationship of institutional pressures and green supply chain practices adoption.

## **2. THEORETICAL BACKGROUND**

### **2.1 Green Supply Chain Practices**

There is a multidimensional expansion of the literature on the area of Green supply chain practices. Green supply chain management involves environmental thinking into supply chain practices. This gave a birth to the concept of “green supply chain practices”. So green supply chain practices implemented the practices of green design, green purchasing, green logistics, green packaging etc. ( Chang, et al., 2013). Al-Aomar & Weriakat (2012) pointed out all the steps and elements of the supply chain must be analyzed for its environmental impact in order to adopt green practices. The key practices mentioned in previous studies include green design, green operations, reverse logistics, waste management and green manufacturing (Srivastava, 2007). However a framework proposed by Lakshmeera & Palanisamy, (2013) categorized green supply chain practices in to inbound practices, operations practices, outbound practices, reverse logistics, management support, and customer support. Zhu & Sarkis, (2004) has identified four green supply chain practices as internal environmental management, external GSCM including green purchasing and cooperation with customers including environmental requirements, investment recovery, and eco-design practices.

### **2.2 Institutional Pressures**

Institutional theory ( DiMaggio & Powell, 1983) is used to explain the key institutional pressures for adopting green supply chain practices. Institutional theory depicts

organizational legitimacy as a by-product of an organization adopting particular structures, beliefs, and behaviors due to cultural and social pressures enacted from their external environment (Barley & Tolbert, 1997). External environment is not exclusively impacted by institutions but institutional theory incorporates institutions as ideas, practices and process and the actions and behaviors are significantly influenced by institutions which they are located. Institutional theory is based on the notion that organizations located within the same environment are susceptible to adopting similar structures, behaviors and activities (Shonk & Bravo, 2010). And also institutional theory asserts that firms adopt initiatives in order to gain legitimacy or social acceptance. Institutional theory can be used to study how a company addresses green issues due to external pressures (Jennings & Zandbergen, 1995). In Institutional theory, three forms of pressures are identified as normative, coercive, and mimetic pressures (DiMaggio & Powell, 1983).

### ***2.2.1 Normative Pressure***

Normative pressures are exerted by firms in the similar industry or people in the similar groups. For the green supply chain practices adoption, the information on costs and benefits of adopting green practices are likely to be shared within the same industry. Furthermore sharing these norms among members of similar network facilitates potential influence on adopting green supply chain practices (Cai S., Souza, Goh, Li, & Lu, 2008).

### ***2.2.2 Coercive Pressure***

Coercive pressures are exerted by external bodies through formal or informal power. Government agencies or rules and regulations are example for normative pressures that influence to organizational behavior. Most of the literature support the regulatory forces as coercive pressure (DiMaggio & Powell, 1983), (Cai S., Souza, Goh, Li, & Lu, 2008).

### ***2.2.3 Mimetic Pressure***

Mimetic pressures occur when an organization follow successful competitors in the industry. Firms may imitate successful competitors through benchmarking in order to reduce the risk of adopting green supply chain practices or gain second mover advantages (Cai S., et al., 2008).

## **2.3. Firm Size**

Size of a firm is an important element influencing various factors of a firm (Zawawi, Wahab, & Al-Mamun, 2014). According to Abiodun, (2013) firm size plays an important role in determining the kind of relationship the firm enjoys within and outside of its operating environment. Size of a firm is determined by two ways as annual turnover and number of full time employees. Effect of firm size has been much queried in the field of corporate finance. Previous studies showed that firm size is an important determinant of profitability (Abiodun, 2013). Since firm size is important element it is been used to test the moderating effect in many fields. Jayaram, Ahire, & Dreyfus, (2009) studied the moderating effect of firm size on total quality management and effectiveness of a firm while Wahab, Abdullah, Uli, & Rose, (2009) used the size as a moderator in their study of knowledge transfer. However the researcher could not find any literature regarding firm size effect on adopting green supply chain practices. But researcher found that number of researchers used firm size as a profiling

variable in many studies in the field of green supply chain management. Vanpoucke, (2014) used firm size as a profiling variable in his study expecting that firm size may influence the implementation of environmental practices as larger firms have more resources available to devote to environmental initiative and receive greater pressure from stakeholders than smaller firms. Therefore researcher's prime objective is to propose a model to find the moderating effect of firm size on institutional pressures and green supply chain practices adoption in order to fill the knowledge gap of the existing literature.

### 3. CONCEPTUAL MODEL

Based on the above theoretical background the researcher build following conceptual model to measure the moderating effect of firm size on institutional pressures and green supply chain practices. Institutional pressures are broadly categorized based on institutional theory as normative, coercive, and mimetic pressures and the model shows how firm size moderate the effect of institutional pressures to adopt green supply chain practices.

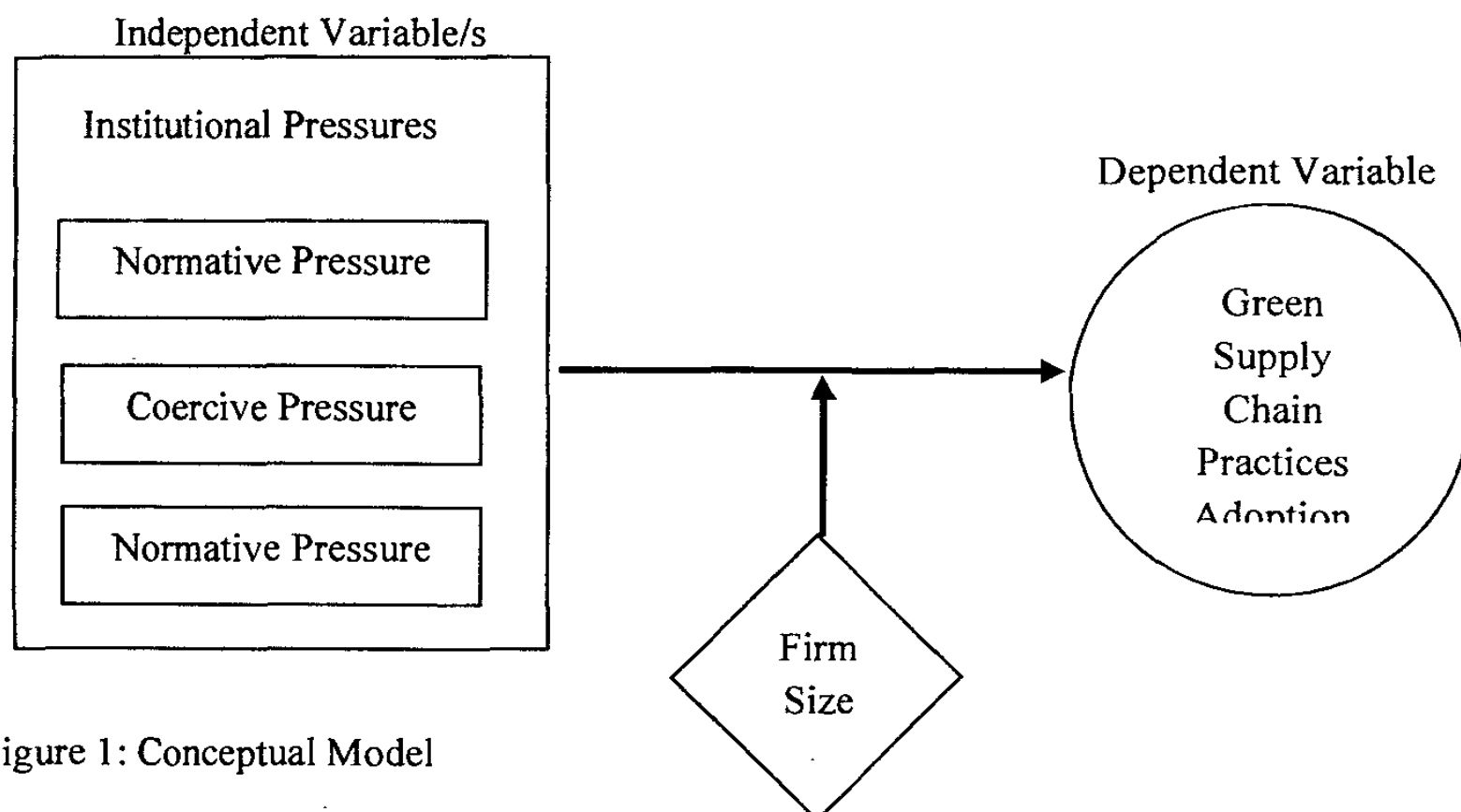


Figure 1: Conceptual Model

### 4. CONCLUSION

With the global trend of greening, researcher assumes that all the manufacturing companies have to adopt green supply chain practices in the future. Therefore identifying the key pressures for adoption of green supply chain practices and the effect of firm size on that relationship, is important to study to strengthen this area further. Since there is still no study testing moderating effect of firm size on supply chain discipline, this study will be filled the literature gap and contributed more to the existing knowledge. The researcher further anticipates that proposed model will be more contributed to enhance the adoption of green supply chain practices by potential manufacturing companies.

### 5. FUTURE RESEARCH DIRECTION

Since this is a conceptual paper, further researches can be done using the proposed model. Future researchers in the field of supply chain management will be encouraged to test this model using primary data collected from the manufacturing firms in any context. Besides

future researchers can also consider different constructs to adopt green supply chain practices and see the effect of firm size on that relationship.

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