



An Evaluation of Government Role in Green Supply Chain Management through Theories

Hossein Nezakati^{1*}, Meghdad Abbasian Fereidouni², Azmawani Abd Rahman³

¹University Putra Malaysia, Selangor, Malaysia, ²Limkokwing University of Creative Technology, Cyberjaya, Malaysia, ³University Putra Malaysia, Selangor, Malaysia. *Email: hossein_na@upm.edu.my

ABSTRACT

Companies self-regulating were mostly for improving their reputation and public image rather than achieving to sustainability goals and this led to shift to co-regulating approach. In co-regulation practices, however, non-governmental organizations (NGOs) initially played a vital role to reduce the companies' misuse of self-regulating era, but given that many companies have tied with NGOs and under business-NGOs partnership concealed the corruptions. The aim of this study is to evaluate the role of governments in green supply chain management (GSCM) in order to examine the coercive and supportive dimensions of governments' effects on all stakeholders' actors. In this regard, stakeholder theory, institutional theory and resource based view have been utilized to identify and explain the governments' role in the chain. The findings of this research suggested that governments' stewardship role can be more appropriate to the GSCM in order to coordinate and integrate the supply chain activities. This study has proposed a conceptual model which it can be empirically tested for future studies.

Keywords: Non-governmental Organization, Government Policy, Green Supply Chain Management

JEL Classifications: D73, M48, Q55

1. INTRODUCTION

With the evolution of green supply chain technologies and boosting green product market shares, almost all companies initiated to launch an environmental friendly product (EFP) version to the market. For instance, most of appealing abroad automotive manufacturers have found the vast green segment of customers and released successful green cars under name of hybrid and electronic vehicles (Hafezalkotob, 2015). Because of their full efficiency and less emission, customers accepted to support and buy these kinds of cars in most western European and North American countries as well as South Korea and Japan. On the other hand, environmental challenges, such as climate changes, natural resources depletion, and air and water pollution increased civil society awareness and caused non-governmental organization (NGO) pressure on the firms. Gradually, companies have been imposed to practice green supply chain management (GSCM) in their business model, either because of increasing of demands of EFP or due to stakeholders' pressure such as NGOs and governments (Ding et al., 2015).

Since adoption of GSCM, companies in order to implement and control sustainability strategies and initiatives, with the ultimate goal of improving sustainability performance, companies establish governance mechanisms and structures to manage relationships with their supply chain actors (Formentini and Taticchi, 2016). With globalization and free market strength and the subsequences of privatization and deregulations, governments roles had been weakened and multinational corporates practiced self-regulating and monitoring with implementing private standards, management systems and codes of conduct during 80s decade (Poret, 2014; Lewis, 2009). Despite cost reduction for governments, corporate self-regulating could not be existed after many incidents and whistle blowing of companies catastrophic environmental and social exercises. According to Utting (2002), companies self-regulating were mostly for improving their reputation and public image rather than achieving to sustainability goals and this led to shift to new approach: Co-regulating and multi-stakeholder theory. In co-regulation practices, however, NGOs initially played a vital role to reduce the companies' misuse of self-regulating era

(Meixell and Luoma, 2014), but Chen et al. (2015) reported that many companies have tied with NGOs and under business-NGOs partnership concealed their corruptions. Many studies criticized the NGOs independency and argued in many cases, NGOs have been funded from companies which made them dependent to companies (Poret, 2014; Epperly and Lee, 2013).

Investigating the role of government in GSCM has become a topic for only few researchers in recent year (Sheu, 2015; Hafezalkotob, 2015; Vermeulen and Kok, 2012). The literatures related to the government's role in GSCM still lacking and the needs for more research in this area is indispensable (Tieguhong et al., 2015). The aim of this study is to explore the role of governments in increasing positive effect of green supply chain adoption and reducing negative incident related to green supply chain implementation. Utilizing stakeholder theory, resource based view (RVB) and institutional theory helped the research identifies how interaction between government and other stakeholders of green supply chain can mitigate the effect of current GSCM issues.

The reminder for this study is investigating the theories and literature related to government role in GSCM for next section and followed by analyzing the key role of governments in integrating and coordinating the assessment of adoption and implementation of GSCM by private sector as self-regulation or by NGOs as co-regulation and monitoring. A discussion part depicts the pivotal role of government in a framework which it can be helpful for future researchers to test the suggested relationships. At the end of this study, the researcher summarizes all the findings and provided discussions under conclusion part.

2. LITERATURE AND THEORIES

In order to find and explain the role of government in implementation of green supply chain, the researcher identified that using stakeholder theory can clarify the actors in adoption and implementation of GSCM. Based on stakeholder theory, in this study, government, NGOs, media and customers have been assumed as stakeholder of buyer and supplier, private sector, in which they can influence or be influenced by their stakeholders (Meixell and Luoma, 2014). The second theory that has been used in this study is institutional theory which provides an academic lens by which the researcher can detect and test the effect that gives legitimacy to organization, with factors like social environment, culture, history, tradition and regulation, as well as economic motivations and resources (Glover et al., 2014). With institutional theory, managers can understand and explain how and why some certain exercise has been chosen without clear economic return (DiMaggio and Powell, 1983). To explain the importance of internal resources in defining firm actions, the researcher utilized RVB theory as third theory in this study (Clemens and Douglas, 2006).

As the most developed theory in management literature, institutional theory investigates how external forces influence an organization. It is one of the most common foundations upon which to study green issues (Clemens and Douglas, 2006). Based on this theory, coercive forces, normative and mimetic

forces impose firms to adopt certain strategies (DiMaggio and Powell, 1983). Normative forces and mimetic pressure can push organizations and firms to improve their green performance. Legitimacy imposes stakeholders to adopt sustainable practices as proper and appropriate concept. Government as regulatory agency and a policy maker legitimates the market and business environment which firms concerns to conform the rules. In this matter, institutional theory can be used to explain how changes in regulations, social values and technological advancements can influence companies' decision making regarding environmental performance and green activities (Glover et al., 2014).

According to the resource-based view, resources which are valuable, inimitable and non-substitutable can bring sustained competitive advantages for firms. In order to be valuable, resources should take advantage of opportunities or minimize threats from the firms' external environments (Clemens and Douglas, 2006). Governments as well as other stakeholders in supply chain can be assumed as external environment which can provide the firms with value, inimitability, rareness, and non-substitutability. However governments not only can exert institutional forces in order of limiting factors for firms, based on RBV theory, but also governments can influence firms resources.

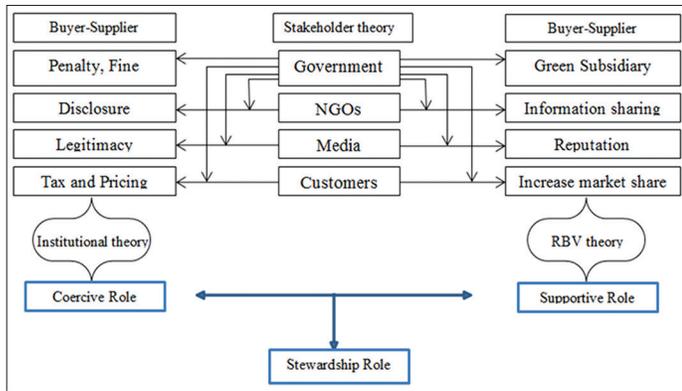
3. GOVERNMENT ROLE IN GSCM

Putting all the monitoring related roles on the shoulder of NGOs, media and customer can be worse (Epperly and Lee, 2013) as much as government rely on self-regulating of companies. Aforementioned, many scandals, green washing, whistle blowing, misleading in natural contaminating is due to the lack of government supervision on the chain. Government as powerful stakeholder of green supply chain can easily enforce the companies by influencing their internal and external resources. In one point of view, the government, as regulator can provides incentives for green performing companies by subsidizing the EFP products or stimulating customers to buy green products which it increase the market share for them. Government also can encourage media to improve the legitimacy of green companies. In second action, governments may impose taxes for companies that not practicing sustainability in their supply chain management (Clemens and Douglas, 2006). This role also known as control and command, however, can increase companies misleading, but it can destroy the reputation of companies in case of disclosure (Chen et al., 2015). In third point of view, government can play as stewardship role and integrate and coordinate the circumstances between supply chain actors. In many cases, central and local government budget deficit causes that government cannot apply the appropriate policies on private sectors (Sheu, 2015). Based on stewardship role, the government can either enforce or encourage the firms to improve their green supply chain practices with less spending budget and more using other stakeholders in the chain.

3.1. Supportive Role

Adoption and implementation of green supply chain are required incentives for the companies (Bush et al., 2015). Governments, in one hand can indirectly benefits green companies by stimulating customers to buy ERP products in which it increases market

Figure 1: Proposed conceptual model of government’s role in green supply chain management



share of ERP products for companies (Ding et al., 2015) and publishing green companies lists to media, in which it rises reputations of green companies and finally led to increases their incomes. Moreover, government may influence NGOs to empower their relationship with the green businesses. On the other hand, government can directly support green practicing companies by making policy such as pricing strategy for ERP product and subsidizing green technologies. In this order, green companies can benefit from low threat of new entry to the sector that they are working (Formentini and Taticchi, 2016). Governments are imposing penalty for polluting the environment and using the incomes either to subsidize to reduce the price for ERP producer or bringing green technologies for sustainable supply chain practitioners (Ding et al., 2015).

3.2. Coercive Role

Using coercive approach, governments always try to increase the awareness of green related issues in private sectors (Clemens and Douglas, 2006). Also known as command and control approach, government coercive actions exerted on firms have increased other stakeholders’ pressure on focal firms and suppliers to improve their supply chain activities. Based on institutional theory, companies are trying to plan and answer to the external forces which legitimates their activities (DiMaggio and Powell, 1983). Failing to reach to this goal, companies’ reputation would easily disrupted by government disclosure. Government also can impose taxes on environment unfriendly product to enforce customers buying ERP products (Hafezalkotob, 2015).

3.3. Stewardship Role of Government

The idea of stewardship pulled from management and organization literatures in the United States (VanSant, 1996). It argues governments to decentralize in order to make a partnership and empowering as basic governance strategy with their partners. However governments can directly and indirectly influence private sectors as well as other stakeholder in supply chain in order to encourage or impose them to practice green and sustainable, but the governments sometimes are needed to play coordinating and integrating role between all stakeholders in the chain. In one point, governments can empower the NGOs and other civil society position in order to give them the required legitimacy. Moreover, governments can facilitate the way of information sharing in supply chain and monitor the practitioners of green supply chain

(Bush et al., 2015). Consequently, based on all stated findings, conceptual model of this study is proposed (Figure 1).

4. CONCLUSION

Stakeholder theory conveyed that government, media, NGOs and customers as stakeholders of focal firms and suppliers have a pivotal role in sustainable supply chain management. In this study, the research intended to evaluate the role of government in GSCM and explore the effect of government interaction in this chain. Using institutional theory and RBV theory facilitated this study to find government impact on internal and external firms’ resources in order to either enforcing or encouraging them to enhance their green supply chain performances. Based on institutional theory, government can play a coercive role in order to enforce the private sectors to adopt and implement GSCM in their business model. These kinds of pressures can be applied by media, NGOs and customers hence government influence them to monitor, control and boycott the firms. On the other hand, government supportive role can be identified based on RBV theory which is also can be made by other stakeholders which are influenced by governments. In conclusion, government can use verity of tools and promoted policies to play its stewardship role in GSCM. It has been suggested that governments support and supervise other stakeholders in order to overcome environmental issues exerted from focal firms and suppliers. For further studies, researchers can test the proposed conceptual model in order to examine the government relationships with other stakeholders and define new approaches.

REFERENCES

- Bush, S., Oosterveer, P., Bailey, M., Mol, A. (2015), Sustainability governance of chains and networks: A review and future outlook. *Journal of Cleaner Production*, 107, 8-19.
- Chen, S., Zhang, Q., Zhou, Y. (2015), Impact of supply chain transparency on sustainability under NGO scrutiny. *SSRN Electronic Journal*. Available from: <http://faculty.washington.edu/yongpin/Sustainable%20Supply%20Chain%20paper.pdf>.
- Clemens, B., Douglas, T. (2006), Does coercion drive firms to adopt ‘voluntary’ green initiatives? Relationships among coercion, superior firm resources, and voluntary green initiatives. *Journal of Business Research*, 59(4), 483-491.
- DiMaggio, P., Powell, W. (1983), The Iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147.
- Ding, H., Zhao, Q., An, Z., Xu, J., Liu, Q. (2015), Pricing strategy of environmental sustainable supply chain with internalizing externalities. *International Journal of Production Economics*, 170, 563-575.
- Epperly, B., Lee, T. (2013), Corruption and NGO sustainability: A panel study of post-communist States. *Voluntas*, 26(1), 171-197.
- Formentini, M., Taticchi, P. (2016), Corporate sustainability approaches and governance mechanisms in sustainable supply chain management. *Journal of Cleaner Production*, 112, 1920-1933.
- Glover, J., Champion, D., Daniels, K., Dainty, A. (2014), An institutional theory perspective on sustainable practices across the dairy supply chain. *International Journal of Production Economics*, 152, 102-111.
- Hafezalkotob, A. (2015), Competition of two green and regular supply chains under environmental protection and revenue seeking policies

- of government. *Computers and Industrial Engineering*, 82, 103-114.
- Lewis, J. (2009), The why and how of partnerships: Policy and governance foundations. *Australian Journal of Primary Health*, 15(3), 225.
- Meixell, M., Luoma, P. (2015), Stakeholder pressure in sustainable supply chain management. *International Journal of Physical Distribution and Logistics Management*, 45(1/2), 69-89.
- Poret, S. (2014), Corporate-NGO partnerships in CSR activities: Why and how? *Cahier de Recherche*, 21, 1-28.
- Sheu, J. (2015), Supplier hoarding, government intervention, and timing for post-disaster crop supply chain recovery. *Transportation Research Part E: Logistics and Transportation Review*, 90, 134-160.
- Tieguhong, J., Ingram, V., Mala, W., Ndoye, O., Grouwels, S. (2015), How governance impacts non-timber forest product value chains in Cameroon. *Forest Policy and Economics*, 61, 1-10.
- Utting, P. (2002), Regulating Business through Multi-Stakeholder Initiatives: A Preliminary Assessment. *Voluntary Approaches to Corporate Responsibility: Readings and a Resource Guide*.
- VanSant, J. (1996), Governance as Stewardship: Decentralization and Sustainable Human Development. *The United Nations Development Programme (UNDP) USA: Research Triangle Institute*. p1-7.
- Vermeulen, W., Kok, M. (2012), Government interventions in sustainable supply chain governance: Experience in Dutch front-running cases. *Ecological Economics*, 83, 183-196.