

Conference Paper

A Reflection of Local Supplier Development towards Sustainable Social Supply Chain

Munira Halili and Yudi Fernando

Faculty of Industrial Management, Universiti Malaysia Pahang, Lebuhraya Tun Razak, 23600, Gambang, Pahang, Malaysia

Abstract

In today's business environment, supplier management is increasingly inclined to complexity and uncertainty due to rapid technological changes and globalization. The objective of this study is to review the necessary important of local supplier development towards sustainable social supply chain. Supplier management must be handled systematically, and maintaining a good relationship between manufacturer and supplier is vital. Therefore, it is critical for the supplier in making a well-informed decision. As an alternative, firms should consider developing a local supplier in making sure the availability of fast and reliable supplies to meet global requirement. The criticality is due to supplier selection contributes to overall supply chain performance. This study concludes that developing a local supplier will reduce the increased pressure to develop a direct economic relationship with local communities.

Keywords: supplier development, sustainable, social supply chain, manufacturing, supplier.

Corresponding Author:

Yudi Fernando
 yudi@ump.edu.my

Received: 5 August 2019

Accepted: 14 August 2019

Published: 18 August 2019

Publishing services provided by
Knowledge E

© Munira Halili and Yudi Fernando. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the FGIC2019 Conference Committee.

1. Introduction

Business process and decision making could lead to a firm's success or failure. Within this energetic business arena, the firm must always keep up with customers' requirement. Often customize configuration particularly will impose a risk to manufacturer specifications with regards to the material supplies. Therefore, relying on the supplier to sustain its business and produce good quality of products or services is critical. Failing to do so causes the firm to potentially unable to fulfill the orders and face obstacles in operating and managing its supply chain. To always be on top of the game, selecting a supplier that meets the firm's requirement and standard will ensure that no disruption in its supply chain.

Although maximizing profit and shareholder value is the top priority in any business, often time, firms are highly demanded to be accountable to the social implications as a result of their activities in their supply chains. Ensuring that no harm is done towards society at large is essential. Supplier's practices could have an impact to the

 **OPEN ACCESS**

manufacturing in terms of its performance indicator as well as branding and reputation as a society today has become aware of the negative issues surrounding firms' activities such as child labor and gender discrimination. News is shared rather quickly, particularly through the usage of social media. This has become a challenge to firms these days is making sure not only their manufacturing complies to good practices but likewise to their suppliers. Local supplier development will contribute to improving social sustainability as this act indicates that firms care of society's wellbeing by giving out opportunities to the locals and trusting their skills and capabilities by developing the community where firms operate. In addition to that, local government regulations could also be the factor enforcing local supplier development.

2. Literature Review

2.1. An Overview of Malaysia Manufacturing Industry

The manufacturing industry has significantly contributed towards firming up the economy of many countries, be it in the global arena or those in developing countries by supplying goods and services (Abdul-Rashid, Sakundarini, Raja Ghazilla, & Thurasamy, 2017). According to Janee Ali, Islam and Poon Howe (2013), the manufacturing industry globally has undergone drastic changes lately, not only focusing on efficiency alone, rather integrating the customer-focused technology-based through the open operating system to survive in this dynamic sector. This is supported by Naqshbandi, Kaur, Sehgal, and Subramaniam (2015) that Malaysia economy will become more driven by technology and using knowledge as its basis as Malaysia moves towards becoming a fully developed country.

Malaysia manufacturing sector are diverse and segregated into twelve areas namely non-metallic mineral industry, aerospace, textiles and textile products, basic metal products, electrical and electronics, engineering support, food and sustainable resources, machinery and equipment, medical devices, petrochemical, pharmaceuticals and wood and wood products and furniture and fixtures (Malaysian Investment Development Authority, 2019).

According to the Department of Statistics Malaysia (2019), the manufacturing sector recorded an increase in sales value of RM69.9 billion in April 2019, a growth of 6.8 percent as compared to RM65.5 billion last year. The electrical and electronics (E&E) alone shows the significant increase in sales value in April 2019 to 6.7% (Department of Statistics Malaysia, 2019). According to the Malaysian Investment Development Authority

(2019), E&E industry reportedly contributing significantly by foreign investments of RM8.2 billion, which equivalent to 84.5% of all investments in the industry. Hence, the E&E industry is, no doubt, the leading sector in Malaysia's manufacturing sector.

Although manufacturing industries flourished significantly, several challenges are associated with industries success. Due to rapid technological advancements, to facilitate this, segregation between managing a firm's core competencies and subcontracting the non-core activities to the supplier is one the decision firm has to make. Integrating firm manufacturing with suppliers is one of the moves so that any possible issues can be detected at an earlier stage.

In addition to that, numerous cases concerning child labor and poor management of suppliers workforces were highlighted in recent years, which impacted the reputation of giant players in the industry. Issues such as Nike utilizing child labor at suppliers' factories in the 1990s as well as the suicidal case in Apple's supplier Foxconn in early 2000s are amongst those that had received severe backlashes from consumers and society. These inappropriate practices by suppliers are some of the examples of social issues related to product and process, because these aspects could have an impact to people and society surrounding global business networks as it is directly impacting the credibility of these huge corporations (Tate, Ellram, & Kirchoff, 2010; Mani, Gunasekaran, Papadopoulos, Dubey & Childe, 2016). Therefore, supplier selection is critical in ensuring the firm is economically and socially compliance.

2.2. Local Supplier Development (LSD)

Maintaining a good relationship with a supplier is crucial in running businesses. Supplier management is one of the aspects in the supply chain process that must be handled carefully as the supplier is the supply chain's primary foundation and the beginning of the chain process. According to Kannan, Khodaverdi, Olfat, Jafarian, and Diabat (2013) and Kannan, Govindan and Rajendran (2015), it is vital and crucial for firms to select the best supplier to ensure that firm's association throughout its chain is effective so that firm can successfully strive globally. Also, Jabbour, Jabbour, Latan, Teixeira, and Oliveira (2014) concluded that to achieve sustainability in a supply chain without supplier support is of a great challenge. According to Buyukozkan and Cifci (2011), triggering point in supply chain sustainability is the suppliers, making a shift in procurement's focus to not only on economics but also to incorporate social and environmental perceptions when selecting suppliers. This is because supply chain performance could be affected by these continuous efforts.

Kannan (2017) identified five critical factors in selecting suppliers. The factors highlighted are preserving continuous and long-run relations and coalitions, authorization by stakeholder, fairness in managing labor and human rights aspect are categorized under social concerns, whereas production of polluting agents is an environmental issue. Other criteria considered by firms during the supplier selection process are price, quality, and flexibility, among others. Further, Kannan (2017) also mentioned that the rise of suppliers' performance would contribute to the increment of an efficient supply chain.

Selection of supplier during the early days indicated that economic factors were the only criteria when selecting suppliers. However, these days, emphasizing social and environmental concerns has shifted focus from profits to sustainability, as well as stakeholders pressure (Thresh Kumar, Palaniappan, Kannan, & Shankar, 2014). Protection mechanism and underage labor have been identified as the highest driving and dependence power when selecting supplier based on a CSR perspective. This notion goes together with a request to put human rights central within CSR. This is due to globalization that somehow neglects this right and targeting on profits. Hence it becomes the key concerns for business in both practical and normative terms.

Suppliers performance and reputation impact the firms. If suppliers do not comply with the rules and regulations as well as bringing negative impacts to the environment or social aspects, firms will face the same bad reputations. High performing suppliers should be able to address common supply chain problems, which in turn preserving limited resources. Heckmann, Comes and Nickel (2015) in their paper shown that research on economic risks such as quality and delivery issues of suppliers and their sub-suppliers have been the focus of firms, however Foerstl, Reuter, Hartmann and Blome (2010) had earlier argued that social and environmental risks of suppliers and supply chains have gained much attention from firms.

According to Mani, Gunasekaran, and Delgado (2018), due to cost advantage, firms increasingly extend their supplier base to emerging countries. However, although cost advantage is important, firms nowadays face with societal pressures from stakeholders as well as bound to governmental laws and regulations, hence taking into consideration environmental and societal issues with regards to handling their suppliers (Ferri & Pedrini, 2018). Firms are seen to select and manage suppliers to increase their reputations and social standards; satisfactory working conditions is foreseen to reduce the likelihood of being penalized if firms involved in social scandals or misbehaviors.

Suppliers selection are based on certain criterion such as evaluation of quality and business practices (Chardine-Baumann & Botta-Genoulaz, 2014). Suppliers' quality

performance and fair trading are examples of these aspects. Closeness to suppliers' practices focusing on supply lead time reduction, geographical concentration of the supply base, close relationships with suppliers and direct deliveries from suppliers are also important for firms in ensuring that social performance is met (Ciccullo, Pero, Caridi, Gosling, & Purvis, 2017). Health and safety and wellbeing systems in the workplace and with suppliers are crucial to firms.

Tang and Zhou (2012) argued that firms must ensure their operation strategies are aligned with upstream suppliers and downstream customers to generate the largest benefits. A study conducted by Kumar and Rahman (2016) illustrated that external influence and sustainability adoption's expected benefits are important precursors of top management commitment towards integrating sustainability into supply chain operations. This will then influence the supplier practices such as supplier selection, supplier development, and supplier performance review, which further influenced the economic, social, and environmental sustainability performance of the supply chain.

Supplier development is generally targeting at producing a new capability, competency, and capacity of diverse suppliers (Goffin, Lemke, & Szwejczewski, 2006). The aim is to enhance the competitiveness and advantage for the firm and at the same time, provide growth for the local communities. Supplier development could also be deemed as improving the performance, which would be apparent in the way new products are introduced as well as the management of process and standard. To the firm itself, this move is a way to achieve cost savings as global sourcing is less required, the firm can oversee the quality, on-time delivery performance is improved which in turn increased profit (Krause, Handfield, & Tyler, 2007).

2.3. Sustainable Social Supply Chain and Local Supplier Development

This section aims to examine four aspects of sustainable practices towards local supplier development. The four identified elements are sustainable procurement, sustainable design, sustainable distribution, and sustainable production. It is worth to synthesize the relationship between these elements.

Sustainable procurement is defined as a process whereby firms meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the firm, but also to society and the economy, whilst minimizing damage to the environment (Department for Environment Food and Rural Affairs, 2006). Brammer and Walker (2011), in their studies, developed

two new dimensions of sustainable procurement practices, namely procuring locally and procuring from small suppliers. In addressing sustainable procurement practices, their study adopts the design and packaging of products, purchasing from small and local suppliers, products' potential for recycling or reuse, safety, labor rights, carbon reductions in the movement of products to facilities, operational excellence, product innovation, leadership, willingness of suppliers to commit to waste reduction goals, religion, and culture as dimensions.

Besides that, when it comes to sustainable design, the firm needs to take into consideration its social impact on society. Hence, the supplier must also be socially inclined so that both the manufacturers and suppliers are aligned on the business operating model. Zhang, Zhang, Fung, and Ng (2019) indicated that make-or-buy analysis and supplier selection are closely related to product design. Developing suppliers locally gives control to the firm in designing the products that meet societies acceptance. Besides that, the firm can ensure the design can produce good quality products and not harmful to consumers.

To sustain the firm's distribution channel, fast delivery is one of the criteria to determine a supplier's performance aside from cost and quality. Hence, strategic distribution is essential to ensure goods are delivered in a timely manner and efficient. Finding in the study conducted by Ashenbaum and Maltz (2017), found that purchasing managers deemed mutual responsibility to positively influence supplier delivery speed, whereas logistics managers found it to positively influence supplier price performance. Local sourcing has an advantage with regards to its short and deterministic lead-time to achieve high responsiveness (Yin, Wang, & Yin, 2018). By sourcing locally, the supplier has the advantage of responding competently to requirements which could lead to reducing inventory costs. It gives more flexibility to the firm by sourcing locally, particularly when a huge opportunity arises, or demand from existing customers suddenly increases. Since the suppliers are within the communities or county's border, the products are expected to be quickly delivered.

About the principles of sustainable production, indicators for economy stated that the favorable criteria in selecting suppliers locally as well as employing workers in all firm's areas are a portion of a firm's corporate social responsibility. Policy for this local suppliers' favorable criteria and guideline to employing local workers must be put in place for the local supplier development can be successfully achieved (Samuel, Agamuthu, & Hashim, 2013).

By incorporating the above sustainable practices in firms' operations, it is likely will assist in developing suppliers locally. Fast response and delivery and close relationship within are critical to ensure firms able to meet customers' requirements globally.

3. Reflection

Local sourcing is deemed as the best approach for a manufacturing firm to maintain its aggressiveness towards fulfilling customer's needs. Therefore, developing a local supplier is required to assist suppliers in enhancing their skills and capability. By this move, the firm is seen as building the communities where it operates, in turn, brings a good reputation and image to society. To ensure that this kind of program is successful and effective, this paper recommends that authority to set a certain requirement to out-source certain activities to local suppliers. Guidelines and enforcements by policymaker are seen as appropriate to ensure that this approach is effective. Frequent follow-ups and audits could be conducted to measure suppliers' performance.

The systematic approach between firm and supplier is deemed necessary as a long-term strategic goal. Regular monitoring is required to ensure the plan is executed into actual performance to further improve its supply chain. To rate its success, it is recommended that both the manufacturer and supplier to have a mutual understanding of its end goal. This can be achieved by on-going engagement and communications to ensure the goals are met.

4. Conclusion

In the current economic situation where marketplace changes rapidly, firms are expected to change faster and align with the current changes. This also applies to the suppliers as firms rely heavily on innovations from the business partners. The development of local suppliers addresses disperses suppliers by having an integrated and comprehensive initiative. By this development, it is foreseen that the local suppliers will be equipped with suitable skills so that firms' ultimate goal to achieve profits and to operate in effective and efficient ways is achievable.

Acknowledgment

The authors convey their appreciation to the Division of Research & Innovation, Universiti Malaysia Pahang for funding this study (RDU grant no: 172207; PGRS grant no: 190365).

References

- [1] Abdul-Rashid, S. H., Sakundarini, N., Raja Ghazilla, R. A., & Thurasamy, R. (2017). The impact of sustainable manufacturing practices on sustainability performance. *International Journal of Operations & Production Management*, 37, 182–204.
- [2] Ashenbaum, B., & Maltz, A. (2017). Purchasing-logistics integration and supplier performance: An information-processing view. *International Journal of Logistics Management*, 28, 379–397.
- [3] Brammer, S., & Walker, H. (2011). Sustainable procurement in the public sector: An international comparative study. *International Journal of Operations and Production Management*, 31, 452–476.
- [4] Buyukozkan, G., & Cifci, G. (2011). Computers in Industry A novel fuzzy multi-criteria decision framework for sustainable supplier selection with incomplete information, 62, 164–174.
- [5] Chardine-Baumann, E., & Botta-Genoulaz, V. (2014). A framework for sustainable performance assessment of supply chain management practices. *Computers and Industrial Engineering*, 76, 138–147.
- [6] Ciccullo, F., Pero, M., Caridi, M., Gosling, J., & Purvis, L. (2017). Integrating the environmental and social sustainability pillars into the lean and agile supply chain management paradigms: A literature review and future research directions. *Journal of Cleaner Production*.
- [7] Department for Environment Food and Rural Affairs. (2006). Procuring the Future - Sustainable Procurement National Action Plan, 1–92.
- [8] Department of Statistics Malaysia. (2019). Monthly Manufacturing Statistics Malaysia, April 2019. Retrieved June 16, 2019, from Department of Statistics Malaysia, Official Portal website: https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=90&bul_id=a2ZIRWxNNWpicmFFV0tHcHRxcTZDdz09&menu_id=SjgwNXdiMOJIT3Q2TDBIWXdkdUVIdz09
- [9] Ferri, L. M., & Pedrini, M. (2018). Socially and environmentally responsible purchasing: Comparing the impacts on buying firm's financial performance, competitiveness and risk. *Journal of Cleaner Production*, 174, 880–888.
- [10] Foerstl, K., Reuter, C., Hartmann, E., & Blome, C. (2010). Managing supplier sustainability risks in a dynamically changing environment-Sustainable supplier management in the chemical industry. *Journal of Purchasing and Supply Management*, 16, 118–130.

- [11] Goffin, K., Lemke, F., & Szwejczewski, M. (2006). An exploratory study of “close” supplier-manufacturer relationships. *Journal of Operations Management*, 24, 189–209.
- [12] Heckmann, I., Comes, T., & Nickel, S. (2015). A critical review on supply chain risk - Definition, measure and modeling. *Omega (United Kingdom)*, 52, 119–132.
- [13] Jabbour, A., Jabbour, C., Latan, H., Teixeira, A., Oliveira, J. (2014). Quality management, environmental management maturity, green supply chain practices and green performance of Brazilian companies with ISO 14001 certification: Direct and indirect effects. *TRANSPORTATION RESEARCH PART E*, 67, 39–51.
- [14] Janee Ali, A., Islam, A., & Poon Howe, L. (2013). A study of sustainability of continuous improvement in the manufacturing industries in Malaysia. *Management of Environmental Quality: An International Journal*, 24, 408–426.
- [15] Kannan, D. (2017). Role of multiple stakeholders and the critical success factor theory for the sustainable supplier selection process. *International Journal of Production Economics*, 195, 391–418.
- [16] Kannan, D., Govindan, K., & Rajendran, S. (2015). Fuzzy axiomatic design approach based green supplier selection: A case study from Singapore. *Journal of Cleaner Production*, 96, 194–208.
- [17] Kannan, D., Khodaverdi, R., Olfat, L., Jafarian, A., & Diabat, A. (2013). Integrated fuzzy multi criteria decision making method and multiobjective programming approach for supplier selection and order allocation in a green supply chain. *Journal of Cleaner Production*, 47, 355–367.
- [18] Krause, D. R., Handfield, R. B., & Tyler, B. B. (2007). The relationships between supplier development, commitment, social capital accumulation and performance improvement. *Journal of Operations Management*, 25, 528–545.
- [19] Kumar, D., & Rahman, Z. (2016). Buyer supplier relationship and supply chain sustainability: Empirical study of Indian automobile industry. *Journal of Cleaner Production*, 131, 836–848.
- [20] Malaysian Investment Development Authority (2019). Electrical and Electronics. Retrieved June 16, 2019, from Official Website, Malaysian Investment Development Authority website: <http://www.mida.gov.my/home/electrical-and-electronic/posts/>
- [21] Mani, V., Agarwal, R., Gunasekaran, A., Papadopoulos, T., Dubey, R., & Childe, S. J. (2016). Social sustainability in the supply chain: Construct development and measurement validation. *Ecological Indicators*, 71, 270–279.

- [22] Mani, V., Gunasekaran, A., & Delgado, C. (2018). Enhancing supply chain performance through supplier social sustainability: An emerging economy perspective. *International Journal of Production Economics*, 195, 259–272.
- [23] Naqshbandi, M. M., Kaur, S., Sehgal, R., & Subramaniam, I. D. (2015). Organizational culture profile of Malaysian high-tech industries. *Asia-Pacific Journal of Business Administration*, 7, 2–19.
- [24] Samuel, V. B., Agamuthu, P., & Hashim, M. A. (2013). Indicators for assessment of sustainable production: A case study of the petrochemical industry in Malaysia. *Ecological Indicators*, 24, 392–402.
- [25] Tang, C. S., & Zhou, S. (2012). Research advances in environmentally and socially sustainable operations. *European Journal of Operational Research*, 223, 585–594.
- [26] Tate, W. L., Ellram, L. M., & Kirchoff, J. (2010). Corporate Social Responsibility Reports: a Thematic Analysis Related To Supply Chain Management. *Journal of Supply Chain Management*, 19–44.
- [27] Thresh Kumar, D., Palaniappan, M., Kannan, D., & Shankar, K. M. (2014). Analyzing the CSR issues behind the supplier selection process using ISM approach. *Resources, Conservation and Recycling*, 92, 268–278.
- [28] Yin, Z., Wang, C., & Yin, Q. (2018). Coordinating overseas and local sourcing through a capacitated expediting transportation policy. *Transportation Research Part E: Logistics and Transportation Review*, 118, 258–271.
- [29] Zhang, X., Zhang, L., Fung, K. Y., & Ng, K. M. (2019). Product design: Incorporating make-or-buy analysis and supplier selection. *Chemical Engineering Science*, 202, 357–372.