SUSTAINABLE SUPPLY CHAIN MANAGEMENT: SUPPLIER RELATIONSHIPS AND SUSTAINABLE ABILITIES IN SME’S
Anna Tsaparas
Deakin University, Australia.
Corresponding Email: a.tsaparas92@hotmail.com

Abstract
To transform a supply chain into a ‘sustainable supply chain,’ suppliers need to change their existing production practices (Faisal 2010). It is vital that firms realize the importance of working collaboratively with supply chain partners (suppliers) to increase sustainability performance (Faisal 2010). Ambrose, Marshall & Lynch (2010) state managing the buyer-supplier relationship is a fundamental aspect of the success of firms, and the successful management of stakeholder relationships contributes to strong performance. However, information sharing is important to provide sustainable requirements to suppliers (Beske & Seuring 2014). Sustainable practices and performance have great importance in today’s business world and should be a part of a business’s operational strategies, and such considerations are no longer tied to large companies and multi-national businesses. (Laszlo 2011; Malesisos et al. 2018). In fact, SMEs are proposed to make better contributions to the environment than larger organizations as the decisions are made locally (Natarajan & Wyrick 2011). The main purpose of this research paper is to analyse large-scale companies’ expectations towards their suppliers, and sustainable practices. The second phase of the research incorporates Small to Medium Enterprises (SMEs) ability to incorporate these practices, and the third aim is how they align with supplier relationships. The study can assist professionals in integrating sustainable supplier developments in the supply chain and help smaller suppliers (SME’s), understand sustainable expectations in their buyer-supplier relationships. The study provides a new contribution to sustainable supplier research which is a growing requirement in Sustainable Supply Chain Management (SCCM) literature (Singh & Trivedi 2016).

Keywords: Sustainable Supply Chain Management (SCCM), Corporate Social Responsibility (CSR), Small to Medium Enterprise (SME’s), Buyer-Supplier Relationships.

1. Introduction
Sustainable practices such as environmental, economic and social responsibility have been a growing concern in today’s business world and research; SME’s require greater awareness of sustainable practices in the supply chain, to be more responsible towards their customers and suppliers. This research paper will outline fundamental concepts that can help SME’s develop greater practices in their supply chain. The primary purpose of this research paper is to analyse larger firm expectations in the supply chain towards their suppliers (as buyers) for sustainable practices. To what extent do large-scale organisations create effective, sustainable supplier relationships? As well as, the ability of SME’s may have to incorporate sustainable practices based on (large-scale firm) supplier requirements. The findings will incorporate insight on sustainable improvement practices for SME’s and a better insight to guide SME’s to a more sustainable impact in the supply chain.
Sustainable Supply Chain Management and Supplier Practices

Sustainable Supply Chain Management (SCCM) is formally defined as: “The management of material, information, and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development. i.e., economic, environmental and social, into account which is derived from customer and stakeholder requirements” (Seuring & Muller 2008, p. 1700). In the same way as customer pressures, the actual global political agenda pushes industries toward the awareness that sustainability challenges cannot be addressed by one player alone. Firms are not only held accountable for their actions, but also for the environmentally sustainable practices of their stakeholders. This responsibility is growing in importance as firms are believed to outsource up to 80 percent of their costs of goods sold (Murfield & Tate 2017).

Traditionally, buyer-supplier purchasing was considered an administration function, where the relationships between the supply chain players tended to be adversarial, however, many firms are now starting to incorporate collaboration approaches (Humphreys, Shiu & Chan 2001). According to (Leppelt et al., 2011) supplier-relationships encompass practices related to supplier selection, supplier evaluation, and development. Supplier development is also known as supplier collaboration belongs to a research field based on buyer-supplier relationships. Suppliers play an essential role in implementing sustainable initiatives and in achieving environmental, gains. There have been many positive implications of collaborative partnerships among supply chain members, and the positive performance of indirect stakeholder development. E.g., one example of an environmental supply chain demonstrates Dannon. The yoghurt producer works directly with farms that supply dairy for their yoghurt products to increase transparency to customers, improve their use of land and reduce environmental footprints in Dannon’s supply chain (Murfield & Tate 2017).

For corporate social responsibility to be successful, firms need all members of the supply chain to act in a responsible manner, both environmentally and socially. Although, issues can occur when the last member of the supply chain which deals directly with the end customers does not have complete information about the suppliers and sub-suppliers behaviour and is unable to control how they implement their assigned work, specifically, in a sustainable manner (Wiese et al. 2013). With incomplete information, this leads to a lack of power and influence across the supply chain for the development of sustainable practices (Ciliberti et al. 2011).

Furthermore, another aspect of sustainable supplier practices is codes of conduct. Voluntary codes of conducts in supply chain sustainability have been a growing demand of multinational corporations. The code of conducts and programs regulate supply performance. They are used in areas such as pollution, safety, human right and unethical practices. In supplier relationships, many buyers seek to verify supplier capabilities through audits, documentation and supplier facilities (Jorgensen & Knudsen 2006). The research to date has tended to focus on the supplier performance measures (Leppel et al. 2011; Sancha et al. 2015).

SME’s in the Sustainable Supply Chain

SME’s play an essential economic role in many industrialized countries (Walker & Preuss 2008), including Australia. SME’s account for 33 percent of Australia’s market and employ over 40 percent of Australia’s workforce. Significant amounts of environmental negligence have reportedly occurred within the SME sector (Nulkar 2013). The ability of SMEs to adopt rule-keeping responsibilities in sustainable supply chain management may have significant implications for the competitiveness of SMEs in global supply chains, as well as for the pervasiveness of sustainability standards in value chains (Jorgensen & Knudsen 2006).

SMEs may implement sustainable activities in a supply chain when they can manage sustainable developments internally (Ayuso et al. 2013). One-way SMEs can be encouraged to engage in sustainable activities is by supply chain pressure, where large companies specify their Corporate Social Responsibility (CSR) criteria either as a pre-conditioned to purchase or to be considered in purchasing decision. CSR policies are in fact, less effective than regulation as CSR policies are seen as optional to adopt in a supply chain. A recent study found that SMEs

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not including sustainability may result in exclusion from supply chains (Roberts et al. 2006; Baden et al. 2009). One study (Roberts et al. 2006) found SMEs themselves agree that the best way they are encouraged to be more sustainably responsible is through voluntary effort; another way is to see how much supply chain pressure is exerted which will determine the outcome. Authors (Jorgensen & Knudsen 2006) state there is a growing need and opportunity for the large firm (buyers) to inspire and guide their small suppliers on sustainable requirements due to large buyers can act as changed agents and enhance SMEs suitability by providing resources to the smaller firms. Large firms - are the type of buyers that considerably influence CSR sustainability requirements to their SME suppliers, due to larger firms receiving more stakeholder pressure and can implement CSR standards as they have more resources and also hold greater bargaining power to enforce them among suppliers (Ayuso et al. 2013). Pedersen et al. (2009) similarly suggests that larger firms also integrate significant corporate social responsibility initiatives that pressure their smaller colleagues (i.e., their suppliers). This can occur for three reasons. Firstly, larger companies have more significant resources, i.e., I.T infrastructure. Secondly, there are more significant financial resources, and lastly, larger SME’s are more visible in the marketplace and therefore have stronger incentive to implement CSR.

Benefits of Sustainable Practices by SME’s
- There is a strong association between economic indicators and sustainability practices and performance. Turnover was to be found to be positively associated with the sustainable process such as health and safety practices (Malesios et al. 2012)
- Santos (2011) also noted sustainable practices in SME’s are associated with economic performance and financial growth.
- Improved reputation and increasing employee satisfaction (Santos 2011).

Barriers Faced by SME’s
- Sustainable pressure applied by large firms given that compliance with specific social and environmental standards and the existence of certification schemes represent prerequisites for SMEs to do business with such companies (Santos 2011)
- Challenges including finance, technology, lack of knowledge and internal motive in implementing sustainable practices (Natarajan & Wyrick 2011).
- The lack of any connection between sustainable activities and business strategy, as well as, the challenges in measuring the impact of such practices and the lack of time, and resources (Santos 2011)
- The inability to influence the CSR practices of suppliers or the fact that the majority of consumers still do not base their acquisition of products/services on CSR criteria are other factors that may prevent greater SME involvement (Santos 2011).

2. Significance of Study

A significant issue in the green supply chain literature concerns the question of whether SME’s are proactive or reactive concerning their environmental activities. Stakeholders often encourage SME’s to shift from a reactive to a proactive process for environmental behaviour (Walker & Preuss 2008). It has been estimated that SMEs have a more significant environmental impact than large firms and are the major contributors to pollution, emissions and commercial waste (Baden et al. 2009). The SME research field requires more qualitative perspective which can explore the company-specific requirements that might facilitate SME’s to implement CSR requirements, including greater research is also needed to demonstrate the increasing importance of collaboration practices among supply chain partners (Ayuso et al. 2013).
Research Questions

1. To what extent do large organisations expect sustainable supply chain practices throughout their supplier network?
2. To what extent do large-scale organisations create effective, sustainable supplier relationships?
3. Do SME’s have the capacity to incorporate sustainable pressures from larger firms?

3. Research Methodology

The methodology for the study incorporates a qualitative approach. The study design demonstrates a conceptual framework. The study is theoretical and includes the collection of a coding procedure analysis to emerge central themes and categories.

Theoretical Framework

![Figure 1. The theoretical framework for research](image)

Data Collection & Sample Selection

Sustainable supply chain and supplier data were collected from 2015-2017 sustainable annual reports and relevant sustainable supply chain texts. The data was collected from 20 sustainable annual reports, and further literature/books. Secondary data was collected and analysed to form key themes and categories for the research. Each sustainable report was chosen from a different large-scale organization, mostly selected as Australian owned, in the Apparel, Food/Grocery Industry, and A Telecommunications Company. For the study to be relevant in diverse industries, we chose multi-national organisations with high revenue and market power. Sample selection was collected by recently published documents of no more than three years of the published date, and the sustainable reports had to include some form of supplier responsibility and sustainable supply chain content. The research incorporated a thematic analysis procedure; thematic analysis should be a foundational method for qualitative analysis, as it provides foundation skills for conducting many other forms of qualitative study (Nowell et al. 2017).
4. Findings and Discussion

Table 1 Sustainable Supply Chain Practices & Expectations by Large-Scale Firms

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<tr>
<th>Regulatory framework</th>
<th>Compliance framework</th>
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<td></td>
<td>Social and Environmental (Supplier) Code of Conduct</td>
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<td>Regulatory Supplier Framework (Sustainability)</td>
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<th>Buyer-supplier Principles</th>
<th>Supply chain aspects such as sustainability requirements.</th>
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<td></td>
<td>The buyer-supplier principles which form part of Code of Conduct.</td>
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<td>Sustain able requirements listed before purchase.</td>
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<th>Sustainable sourcing</th>
<th>Ethical sourcing policy</th>
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<td>Sustainably sourced products, both international and national.</td>
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<th>Measuring tools</th>
<th>Ethical sourcing and human rights audit programs</th>
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<td>Induction training course for stakeholders</td>
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<td>Supplier monitoring and governance programs.</td>
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<th>Stakeholder Analysis / Supplier Guidelines</th>
<th>Engage stakeholders to implement ISO 14001 environmental management system</th>
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<td></td>
<td>Select new suppliers with sustainability practices</td>
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<td>Training sessions with global supplier networks</td>
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<td></td>
<td>Motivate suppliers to conduct purchasing with ethical sourcing policy</td>
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<td></td>
<td>Suppliers must sign supply terms and conditions that include an Ethical code of conduct and must comply with this.</td>
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<th>Transparency</th>
<th>Transparency is crucial to business operations and better management of climate impact</th>
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<td></td>
<td>Knowing the manufacturing stage transparency allows firms to hold themselves and suppliers accountable on issues such as social and environmental responsibility</td>
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<td></td>
<td>Tools to ensure traceability of orders.</td>
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<td></td>
<td>A sustainable supply chain is only achieved via the effective tracking and improvement of production, which companies should coordinate with different stakeholders.</td>
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<th>Industry associations and initiatives from NGOs</th>
<th>Better Cotton Initiative</th>
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<td>Dow Jones Sustainability Indices</td>
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<td>Australian packaging cover, (APC) and the National Greenhouse and Energy Reporting (NGER)</td>
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<td>Industrial Global Union</td>
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<td>Global Water Management Strategy ‘Green Peace Initiative’</td>
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<th>Organisational culture</th>
<th>Developing a culture where professional integrity and ethical behavior is valued, human resources are required to complete code of conduct training and stakeholders</th>
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<td>Commitment to the protection of the environment and ensuring the firm values sustainable commitments/developing sustainable dialogue.</td>
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Framework for SME’s and Large Customer Expectations

Figure 2 Sustainable Supply Chain Expectations (Larger Firm Buyers vs. SME’s as Suppliers)
5. Discussion

It was found that large firms have many expectations regarding CSR practices across their supply chain. Many companies listed the requirement for codes of conduct, audits, supplier guidelines and 2nd tier supplier management to be useful in the buyer-supplier relationships in the supply chain. However, many reports stated that this is a 'condition' for buy-supplier relationships.

Effects on Buyer-Supplier Relationships (Large Firms)

It has been noted that large firms often measure sustainable supplier performances, supplier audits, and encourage the participation of CSR programs and policies, these are usually through strategic sustainable relationships. Strategic 'sustainable' relationships is single way which organisations manage risk. Sustainability risk is usually starts from the upstream of the supply chain (from suppliers) and has effects on the focal company which is downstream in the supply chain. ‘Focal company refers to the firm which sells to the consumers’. Thus, with this effect, it is important for suppliers to be more responsible and incorporate ethical practices. In fact, the success of a firm is often linked to its supplier partnerships due to supplier partnerships contributing to a firm’s performance. On the other hand, multi-national firms, manage greater than 1,000 suppliers, in their supplier network and using (By metrics/performance measures) may be the better choice to manage risk. While sustainable practices are implemented for risk method in the supply chain, these expectations may also influence buyer-supplier relationships with SME’s facing 'sustainable change' barriers.

SME’s Abilities to Incorporate Sustainable Practices

In the study, it was also found that SME’s which lack to incorporate sustainable initiatives may face challenges in retaining successful buyer-supplier relationships with larger supplier companies and found that incorporating sustainable practices for both parties is beneficial, as long as SME's can overcome initial barriers to change. Even though SME’s have the lower bargaining power to their small purchase volumes, the implementation of sustainable practices and their transmissions along the supply chain can be an issue for SME’s, also because of significant costs, involved regarding necessary resources (Ayuso et al. 2012). For SME’s seeking to incorporate sustainable practices, there must be four fundamental approaches. The sustainable initiatives should be voluntary practices by managerial and employee group, and there should be in-house motives to educate and learn about CSR and supply chain practices. There also should be a form of information sharing to increase CSR awareness by larger firms (Buyers), along with collaboration with larger-scale (Buyers).

6. Recommendations

SME’s In-house Motivations to Improve Sustainable Practices

Santos (2011) states analysis of sustainable practices finds that the most common activities are focused on the in-house dimensions, from both the business and internal social aspects. This is the most notable findings of SME’s and Corporate Social Responsibility. For sustainable practices to be externally integrated, they must also be first formed in the organizational culture of a small business, which starts with the management.

One source (Vucea-Maneatonis, 2015) suggests that SME’s which receive information regarding sustainable developments managed to change their environmental action responsibly. SMEs that are well-educated about sustainability go to meeting/conferences to learn about sustainable events. They also implement specific action to educate employees. Sustainable responsible SME’s use of processed goods of low environmental impact, decrease energy, reduce environmental impact by recycling and produce environmentally friendly products with recycling packaging.
Voluntary Sustainable Practices and Collaboration

SME’s face pressure from larger customer to be more sustainable, they are influenced to participate in standards and policies, in reducing, waste, emissions, environmental certifications and take into account the firms carbon footprint when developing their services and products in the supply chain (Santos 2011). One way to improve their practices is to participate in Industry partnerships and collaborate within their supply chain network for CSR practices. Collaboration, networking and supplier relationship management are strategic practices of supply chain management, they can have a position affect a company’s performance (Kahkonen & Lintukangas 2017). Companies can implement sustainable practices and collaborate in the supply chain by:

• Participate Industry partnerships such as the ‘Better Cotton Initiative’
• Suppliers collaboration and measuring performance
• Sustainable sourcing
• Consideration of both national and international suppliers

"Compliance regulations are now turning a favourable advantage to companies who took an early lead in engineering processes with a minimal to negative carbon footprint" (Brown 2008 p.94). Firms of all sizes should undergo an enormous shift in their thinking, organisational culture, practices and policies. Creating a change will require the use of proven sustainability practices (Doppelt 2010). Hence, sustainable environmental change requires innovation and strategic thinking. Organizations should create change by implementing a plan, create a systematic implementation of change, demonstrate a problem-solving approach and incorporate a company-wide perspective (Axelsen 2016). Sustainability should begin within an organization developing sustainable models, establishing committees, environmental personnel, and training stakeholders. This should be done in addition to implementing green supply chain management practices to measure environmental policies (Hitchcock & Willard 2006), as well as, integrating information systems for more effective environmental measurements.

Knowledge Sharing

Knowledge sharing has been an increasing concept and essential characteristic in the supply chain, information sharing shares the benefits of material flows, establishment of common standards, and expectation of activities/performances. Integration in a supply chain requires not only standards of behaviour and language across the supply chain but also synchronized flows of information and material among these members (Huang et al. 2014). Knowledge sharing and coordination between members of a supply chain are considered to be an effective strategy for improving its overall performance (Montoya-Torres et al. 2014). To survive in today’s global economy, producers need to develop and share up to date information, and knowledge, specifically in the supply chain. Supply chains are connected by the flow of information, finance, and material by the producers, suppliers, retailers, and consumers. Information sharing is the basis of developing and maintaining strategic relationships which are essential for managing sustainable impacts of a supply chain (Khan et al. 2016).

Conclusion

Large firms (customers) incorporate sustainable practices in the supply chain such as regulation frameworks, buyer-supplier principles, sustainable sourcing and other performance measurements. This affects the buyer-supplier relationship as it’s more of regulation from than a relationship factor, due to the volume of suppliers - large firms may have, this could be the most effective option for them, although it does not prosper strategic ‘sustainable’ relationships. Even though SME’s have major barriers to adopting sustainable practices they are pressured to do so as larger firms have greater bargaining power and can pressure SME’s to be more responsible. SME’s can increasingly expect to receive CSR requirements from their large customers (firms) even if these requirements are not subject to compliance control. If SME’s are able to continue these requirements with their suppliers, this will help to diffuse sustainable standards in the supply chain and improve firm’s overall performance and competitiveness in the business to business markets. Large buying firms
which also want to extend their sustainable practices beyond the first tier of suppliers should make an effort to verify their sustainable requirements and have the potential to prompt their suppliers to pass on the requirements throughout the supply chain (Ayuso et al. 2012).

**Limitations and Future Research**

The research was based on document analysis, to move the research forward, there should be primary data collected from both large-scale companies and SME’s and should take into account other members of the supply chain. Future research can incorporate the effects of consumers and ‘sustainable’ buying decisions on SME’s ‘as suppliers.’ As well as, to what extent, do SME’s have the ability to engage in sustainable practices as buyers towards their supplier?
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