
Article:
Mokhtar, A.R.M., Genovese, A., Brint, A. et al. (2019) Improving reverse supply chain performance: The role of supply chain leadership and governance mechanisms. Journal of Cleaner Production, 216. pp. 42-55. ISSN: 0959-6526

https://doi.org/10.1016/j.jclepro.2019.01.045

Improving Reverse Supply Chain Performance: The Role of Supply Chain Leadership and Governance Mechanisms

Ahmad Rais Mohamad Mokhtar[1], Andrea Genovese[1], Andrew Brint[1], Niraj Kumar[2]

[1]Sheffield University Management School, University of Sheffield, Sheffield, UK

[2]Liverpool University Management School, University of Liverpool, Liverpool, UK

Recently, a growing interest has been devoted to the role of buying firms in promoting sustainability across supply chains. However, relatively little attention has been given to how the behaviour of a buying firm affects the performance of reverse supply chains. Within this context, this paper investigates the role of Supply Chain Leadership styles on suppliers' performance dimensions related to reverse product flows. Furthermore, the mediating role of two governance mechanisms (namely trust and legal-legitimate power) on this relationship is examined. This study employs structural equation modelling to analyse data collected from 190 manufacturing companies in Malaysia. The paper concludes that transformational and transactional leaderships are significant and positive contributors to suppliers' reverse supply chain performance; trust and power significantly mediate these relationships.

Keywords – Supply Chain Leadership, Governance Mechanisms, Suppliers' Performance, Buyer-Supplier Relationship, Reverse Supply Chains

1. Introduction

The Circular Economy (CE) paradigm pushes the frontiers of environmental, economic and social sustainability by emphasising the idea of transforming products in such a way that there are workable relationships between ecological systems and economic activities (Kirchherr et al., 2017). This is achieved by creating a paradigm shift in the design of material flows, based on the notion of waste and by-products as a resource in manufacturing processes (Genovese et al., 2017). CE has been increasingly integrated into supply chain research and practice through concepts such as circular business models and circular product design (Geissdoerfer et al., 2017; Murray et al., 2017).

The main notion of CE is not only to improve environmental sustainability by enhancing traditional performance measures, but also by taking care of reverse supply chain performance (RSCP) by improving the management of end-of-life products and intermediate by-products through reusing, recycling and refurbishment options (Nasir et al., 2016). As such, reverse supply chains (RSCs) are at the backbone of operationalising CE concepts at a meso-level, enacting inter-firm collaboration (Genovese et al., 2017). The management of RSCs carries a number of economic, social and environmental issues and implications, which are further exacerbated by the involvement of multiple actors in RSC operations (Genovese et al., 2017). In order to ensure a successful implementation of RSCs, all stakeholders in the supply chains, including buying firms, should take responsibility in optimising the adoption of RSC practices (Defee et al., 2009; Kannan, 2018; Mathivathanan et al., 2018).

Within this context, buying firms should be able to orchestrate production processes across supply chains by playing a *leadership* role towards upstream suppliers (Defee et al., 2009).

Supply chain leadership (SCL) is concerned with the ability of an organisation (for example, the buying firm in a supply chain) to influence followers' (for example, suppliers) actions or behaviours (Defee et al., 2009; Gosling et al., 2017).

Recently, studies about the influence of SCL on the implementation of sustainable practices within supply chains have been observed (Vivaldini and Pires, 2016; Agi and Nishant, 2017; Blome et al., 2017; Gabler et al., 2017; Gosling et al., 2017; Gunasekaran et al., 2017). However, within this emerging body of knowledge, most of the empirical studies are centred on the improvement of more traditional linear performance measures (such as the ones related to green procurement and manufacturing) (Silvestre, 2015; Wilhelm et al., 2016; Kurucz et al., 2017; Roman, 2017). Very little emphasis has been devoted to RSCs even though the CE paradigm has been extensively promoted in the supply chain environment.

Furthermore, even though prior studies proposed that SCL and governance mechanisms have a potential in simultaneously contributing towards sustainability practices in supply chains (Gong et al., 2018; Jia et al., 2018), current literature fails to examine those concepts together, resulting in unclear explanations of the role of leadership styles and governance mechanisms in managing supply chain relationships and performance.

This study aims at addressing these gaps by providing an empirical investigation into the relationship between SCL and RSCP while also considering the mediating role of governance mechanisms. The paper is organised as follows. Section 2 provides a literature review discussing RSCP and the role of leadership, trust and power in a supply chain context, with specific emphasis on the influence of SCL on RSCP. This section also provides theoretical arguments and proposes the associated hypotheses. Employed research methods are presented in Section 3. Findings are illustrated in Section 4 and discussed in Section 5. Section 6 concludes the paper with a discussion on potential opportunities for future research.

2. Literature Review and Hypotheses Development

2.1 Reverse Supply Chains: Generalities and Performance Measurement

Due to pressures from stakeholders, firms' focus on economic performance needs to be accompanied by care for environmental and social performance (Chan and Kumar, 2007; Seuring and Müller, 2008; Genovese et al., 2013). At the same time, alternative economic models are shaping the development of new forms of supply chains; this is the case of the CE paradigm, which is embracing the notion of restorative industrial systems (Genovese et al., 2017).

Reverse supply chains (RSCs) can be seen as one of the most prominent ways of implementing CE practices at an inter-organisational level. In general, a RSC designs a set of activities to recover end-of-life and after-use products and intermediate by-products by the original equipment manufacturers (OEMs), suppliers or any third parties. These activities can be associated with an open-loop process, where the materials or products are retrieved and reused by parties other than the original manufacturers, or a closed-loop process, where retrieved products are returned back to the original manufacturers for recycling, reuse or refurbishment (Genovese et al., 2017). Transforming traditional linear supply chains into RSCs aims at ensuring that waste can be minimised, while protecting reducing the excessive usage of virgin materials (Prahinski and Kocabasoglu, 2006; Shaharudin et al., 2017; Kannan, 2018).

Several performance measures have been developed in order to keep track of RSC performance; these can be classified into *cost, quality, time* and *flexibility* categories (see Table 1). Previous studies inferred that in order to ensure that environmental performance is maximised across supply chains, suppliers' adherence to sustainable standards must be monitored as well (Sarkis, 2003; Genovese et al., 2014).

Table 1: Initial Items Proposed to Measure RSCP

Construct	Items	Sources
Cost	i. Cost of processing recyclable products ii. Cost of retrieving returned products iii. Cost of storing returned products iv. Cost of remanufacturing, replenishment and reproduction of returned products	Hazen et al. (2015; Olugu and Wong (2012)
Quality	i. Availability of recyclable / reusable materials in products ii. Availability of material recovery plan and warranty returns iii. Ability to remanufacture and refurbish returned products	
Time	i. Lead-time for unsold products to be remanufactured / refurbished ii. Lead-time for warranty returns products to be remanufactured/refurbished iii. Lead-time product recycling and reuse	
Flexibility	i. Ability to incorporate traditional practices with reverse supply chain practices (i.e: dismantling parts and recycle) ii. Ability to provide new infrastructure for new products research and development iii. Ability to produce products with high reusable and recyclable materials	

However, the implementation of RSCs carries a number of implications for risk management. This includes, for example, the availability of stable and predictable streams of products to be recovered, where the environmental benefit depends on reducing the risk of the non-availability of related resources (Soleimani et al., 2014). Furthermore, the relationships among different stakeholders at multiple tiers of RSCs are often less stable and more challenging to establish than in forward supply chains, as product returns are dependent on their life-cycle and on the marginal value-of-time (Guide et al., 2003; Vivaldini and Pires, 2016). As such, close alliances and coordination are needed throughout supply chain activities in order to fully realise the potential of RSCs; in this context, buying firms can play a prominent role as orchestrators of these activities, through leadership approaches and governance mechanisms (Vivaldini and Pires, 2016; Blome et al., 2017; Roman, 2017).

2.2 The Role of Leadership in a Supply Chain Context

For centuries, *leadership* has represented a prolific research stream in the fields of management and organisational behaviour. Recently, research on leadership has been extended to the inter-organisational setting (Müller-Seitz and Sydow, 2012); notably, the concept of supply chain leadership (SCL) has been emerging. The development of this domain can be seen from the initial discussions on channel leadership (based on manufacturer-retailer relationships), supply chain governance (including elements of both relational and contractual governance), institutional pressure (based on isomorphism concepts). Defee et al. (2010, pp. 766) provided the first definition of SCL in the literature as:

> …"*a relational concept involving the supply chain leader and one or more supply chain follower organisations that interact in a dynamic, co-influencing process. The supply chain leader is characterised as the organisation that demonstrates higher levels of the*

> *four elements of leadership in relation to other member organisations (i.e. the organisation capable of greater influence, readily identifiable by its behaviours, creator of the vision, and that establishes a relationship with other supply chain organisations)*".

In the same vein, Lockstrom et al. (2010, pp. 251) defined SCL as the ability of the buying firm

> … "*to influence a supplier to achieve a common goal within the supplier's organisation*".

Lockstrom et al. (2010) further explained that the leadership style of a buying firm has the ability to improve a firm's relational capital including suppliers' commitment and supply chain relationships. Drawing upon these two definitions, this study considers SCL as the behaviours of the buying firms in influencing the actions of their upstream suppliers.

Defee et al. (2010) deduced that SCL is an antecedent of improved supply chain performance by placing emphasis on the ability of buying firms to articulate a vision for the future, communicate the vision and motivate supply chain members. SCL has been identified as the antecedent of improved supply chain performance including relationship commitment (Hult et al., 2000a), organisational learning (Hult et al., 2000b), supply chain efficiency (Defee et al., 2010), supply chain learning (Gosling et al., 2017), and supply chain agility (Dubey et al., 2018). Also, contemporary literature suggests that strong commitment and leadership are required in order to improve the competitiveness of supply chains (Gosling et al., 2017; Gong et al., 2018); in other words, buying firms should move from organisation-centric towards inter-organisational network management to address and cultivate supply chain members needs and requirements.

Contemporary research also highlights the role of SCL towards supply chain sustainability performance. Meinlschmidt et al. (2018) stated that SCL is crucial in ensuring that upstream suppliers adopt green manufacturing practices. The ability of a buying firm to develop lower tier suppliers and encourage them towards environmental sustainability practices is determined by their own leadership behaviours. The role of SCL is not only limited to dyadic supply chain relationship (for example, the relationship between a buying firm and a tier-1 supplier), but also significant in multi-tier or myriad-based supply chain relationships (Jia et al., 2018; Meinlschmidt et al., 2018). This indicates that the influence of buying firms' leadership behaviours can penetrate beyond tier-1 suppliers. Leadership styles chosen by buying firms can differ significantly from time to time and from one supplier to another based on contextual and socio-economic factors. Leadership styles of the buying firms are also influenced by the extent of suppliers' dependency on them. In order for a buying firm to cater for the specific needs of different suppliers and orchestrate the whole supply chain sustainability activities efficiently, they should rely on a multi-faceted and adaptive leadership style (Agi and Nishant, 2017; Gosling et al., 2017). A visible leadership portrayed by the buying firm can assist multiple stakeholders to implement environmental sustainability plans (Gabler et al., 2017). In other words, a buying firm is responsible to enforce sustainability initiatives and exhibit necessary leadership behaviours (such as motivation, control, audit and reward) in order to ensure that the suppliers adhere to its sustainability plan (Kurucz et al., 2017; Dubey et al., 2015). To date, similar dynamics have also been observed in relation to the implementation of sustainability initiatives by third-party logistics providers, highlighting the need for focal firm leadership and coordination (Centobelli et al., 2017).

Usually, in the SCM context, a distinction is made between *transformational* and *transactional* leadership styles. The following sub-sections provide more information about these two leadership styles.

2.2.1 Transformational Leadership in Supply Chain Context

Transformational leadership is characterised by four main dimensions, which are idealised influence, inspirational motivation, intellectual stimulation and individualised consideration (Table 2). When adopting a transformational style, a leader is acting as a role model to the followers, motivating followers towards better performance and generating awareness regarding visions and missions of the group (Bass and Avolio, 1990; Yammarino et al., 1993; Judge and Piccolo, 2004; Bass and Bass, 2008). Drawing upon this concept, transformational leadership in the SCM context refers to the ability of a buying firm to motivate and stimulate their supply chain members' actions and behaviours. By exhibiting transformational leadership, supply chain leaders can enhance communication and information sharing, which is essential for supply chain collaboration (Birasnav, 2013). Moreover, Hult et al. (2000b) highlighted that a buying firm practising transformational leadership can enhance its organisational learning. Overstreet et al. (2013) claimed that there is a positive relationship between transformational leadership approaches exhibited by the buying firm and their operational performance. Transformational leadership of the buying firm can expand organisational innovativeness and lead to a higher financial performance of the organisation. Moreover, transformational leadership by the buying firm can enable itself to manage organisational change, articulate vision, and develop suppliers' commitment (Defee et al., 2010; Overstreet et al., 2013).

Table 2: The Dimensions of Transformational SCL

Dimension	Description	Sources
Idealised Influence	A buying firm acts and behaves in ways that their followers will see them as a role model. A buying firm is required to lead by example, which results in their being admired, respected and trusted by their supply chain followers such as their upstream suppliers.	Hult et al., (2000a); Hult et al., (2007); Birasnav et al., (2015).
Inspirational Motivation	Buying firms should be able to motivate and inspire their supply chain members by providing meaning and suggestion. By demonstrating motivational and inspirational concepts in the leader's management style, a buying firm will be able to generate team spirit, enthusiasm and optimism among their suppliers.	
Intellectual Stimulation	Buying firms should be able to stimulate followers' intellectual capacity to be more innovative and creative. There are a few ways of stimulating supply chain members' (such as upstream suppliers) intellectual capacity including questioning assumptions, reframing and redefining problems or issues, and providing new ways of approaching old practices.	
Individualised Consideration	Buying firms also focus on followers' individual needs, particularly for achievement and growth. Followers' individual needs can be achieved in several ways including the leader acting as a coach or mentor. Individualised consideration is important in promoting new learning opportunities for the suppliers.	

Vivaldini and Pires (2016) found that closed-loop practices in the fast-food retail industry could only be implemented in presence of a collaborative relationship between buying firms and their logistics service providers (LSPs). The planning and implementation phases of recycling should involve both parties in order to ensure that waste collection and transfer activities are

more coordinated, and at the same time improve the LSPs sense of responsibility. Moreover, the success of closed-loop supply chain practices is based on the ability of the buying firm to coordinate upstream and downstream supply chain members including suppliers, retailers and distributors (Szekely and Strebel, 2013). Given the dynamic nature of the supply chain environment, a buying firm should be able to engage with supply chain members in all tiers and orientations (upstream or downstream) to ensure that the needs of RSC practices are well addressed. A buying firm should establish shared goals with supply chain members, so that the implementation of RSC practices will benefit all of them. A buying firm should inspire supply chain members to work collaboratively to ensure the new supply chain orientation towards a RSC can be implemented (Defee et al., 2009). The ability to coach and mentor the suppliers towards RSC practices foster suppliers' willingness to work collaboratively with the buying firms in realising the buying firms' RSCs initiatives (Vachon and Klassen, 2006). Furthermore, acting as the role model, coach or mentor, buying firms will allow suppliers to learn about RSC practices which are currently being implemented (Kocabasoglu et al., 2007; Dubey et al., 2018). Thus, this will directly influence suppliers' ability to learn, replicate and imitate buying firms' RSC practices which will lead them to improve their own RSC activities (Defee et al., 2009). It can be summarised that the central idea of transformational leadership is the ability of buying firms to inspire suppliers, so that they will transcend their normal performance, and at the same time develop suppliers' self-interest to excel and commit to buying firms' plan. Based on these arguments, the first hypothesis is proposed as:

H1: Transformational leadership is positively related to RSCP.

2.2.2 Transactional Leadership in Supply Chain Context

Transactional leadership is characterised by two dimensions, namely *contingent reward* and *management-by-exception* (Table 3). Transactional leaders clarify followers' roles and requirements, then providing rewards for those who meet the expectations (Bass, 1990; Judge and Piccolo, 2004; Whittington et al., 2009). Drawing upon this tenet, transactional leadership in the SCM context is conceptualised as the behaviour of buying firms in: clarifying suppliers' expectations and roles; rewarding, monitoring and auditing suppliers (Birasnav et al., 2015; Agi and Nishant, 2017; Blome et al., 2017; Gosling et al., 2017). Gosling et al. (2017) deduced that buying firms who are committed towards contract compliance (such as defect inspection and quality monitoring) are practising transactional leadership. Moreover, by exhibiting a transactional leadership style, a buying firm can initiate rewarding behaviours that trigger information sharing between both parties (Birasnav et al. 2015). While through a transformational leadership, a buying firm inspires the supplier to do more than contracted, transactional leaders strive to ensure that suppliers do exactly as expected (Hartog et al., 1997; Bass et al., 2003; Birasnav et al., 2015).

Table 3: The Dimensions of Transactional SCL

Dimension	Description	Sources
Contingent Reward	The contingent reward has been identified as a reasonably effective construct in motivating followers to achieve higher levels of performance and development that can contribute to organisational growth and competencies. By using this method, a buying firm will assign suppliers, and agree on goals and objectives with potential rewards or actual rewards in exchange for attaining the assigned levels.	Hult et al., (2000a); Hult et al., (2007); Birasnav et al., (2015).

Management-by-Exception	Through management-by-exception practices, a buying firm tends to monitor deviances in members' assignment and take corrective action if necessary.	

Suppliers' adoption of RSC practices can also be maximised by using transactional SCL. Using a transactional approach, a buying firm will monitor and keep track of the performance of the suppliers by comparing it to a certain set of pre-determined rules or agreements (Birasnav et al., 2015). At the same time, in order to promote compliance, rewards can be offered to supply chain members; a buying firm is also able to use punishment schemes (Blome et al., 2017). By enforcing close tracking of RSC practices, immediate feedback on improvement and potential corrective actions can be shared with the suppliers (Liao et al., 2012). Suppliers tend to adhere to rules and regulations so that they are able to reduce the risk of potential losses or complications such as business termination (Blome et al., 2017). Obviously, the main reason for monitoring, rewarding and punishing suppliers is to ensure their products or parts are aligned to quality requirements from the buying firm (Maestrini et al., 2018); this approach indirectly influences and improves suppliers' RSCP. Being inactive in monitoring suppliers' adoption of RSC practices often means that there is less communication, feedback and monitoring of the suppliers, pointing towards a lack of collaborative activities between buying firms and suppliers in the realisation of environmental sustainability in supply chains (Agi and Nishant, 2017; Blome et al., 2017; Gosling et al., 2017). Hence, the second hypothesis can be formulated as:

H2: Transactional leadership is positively related to RSCP.

2.3 The Role of Governance Mechanisms in Supply Chain Context

In the SCM context, governance can be interpreted as the set of interaction principles between buying firms and their suppliers. These interaction principles specify the manners and tasks that should be performed by the buying firms and suppliers in order to achieve mutually agreed goals and objectives (Um and Kim, 2018; Fawcett et al., 2017). Governance can be defined as:

> … "*a multidimensional phenomenon, encompassing the initiation, termination and on-going relationship maintenance between a set of parties*" (Heide 1994, pp. 72).

Heide (1994) further described that any type of governance should place emphasis on organising, monitoring and enforcing exchange rules between parties. Similarly, Jap and Ganesan (2000, pp. 230) defined governance mechanisms as:

> "*Safeguards which firms put in place to govern inter-organisational exchange, minimise exposure to opportunism and protect transaction specific investments.*"

Predominantly, such mechanisms were designed to reduce opportunistic behaviours of exchange parties mainly through contractual governance and legal-legitimate power (Lumineau and Henderson, 2012). However, the advancement of governance theory suggested that the role of governance mechanisms is also crucial in mitigating conflict and promoting cooperation between supply chain members (Cao and Lumineau, 2015; Shahzad et al., 2018), fostering information and knowledge sharing, improving supply chain agility, flexibility, financial and non-financial performance, as well as cultivating environmental sustainability (

Williamson, 1985; Poppo and Zenger, 2002; Inkpen and Tsang, 2005; Blome et al., 2013; Wacker et al., 2016; Um and Kim, 2018).

While contractual governance is referring to the definition of responsibilities of supply chain members through formal agreements or contracts, relational governance is focusing on the regulation of relationships among supply chain members through informal rules such as trust, flexibility, solidarity and fairness (Poppo and Zenger, 2002; Abdi and Aulakh, 2012).

2.3.1 Suppliers' Trust and Relational Governance

Several informal instruments have been considered and examined in relation to relational governance such as trust (Nooteboom et al., 1997; Poppo and Zenger, 2002; Yu et al., 2006; Ghosh and Fedorowicz, 2008; Liu et al., 2017; Shahzad et al., 2018), communication and information exchange (Poppo and Zenger, 2002; Cao and Zhang, 2011; Bstieler and Hemmert, 2015), as well as collaboration (Cai et al., 2009; Hernández-Espallardo et al., 2013; Dong et al., 2017) between buying firms and suppliers. However, trust is regarded as the most prominent relational governance mechanisms compared to the others as it is deemed to have a significant role in improving supply chain performance (Poppo and Zenger, 2002; Ghosh and Fedorowicz, 2008; Burkert et al., 2012; Cao and Lumineau, 2015; Liu et al., 2017). Trust has been extensively considered as a central factor in facilitating inter-firm relationships, particularly between buying firms and suppliers (Zaheer et al., 1998; Sako and Helper, 1998; Ireland and Webb, 2007; Seppänen et al., 2007; Panayides and Lun, 2009; Capaldo and Giannoccaro, 2015; Shahzad et al., 2018). Alongside contracts, trust has been considered as one of the best mechanisms for organisational control (Dyer and Chu, 2000). Trust in the SCM context can be defined as:

> …"*one's belief that one's supply chain partner will act in a consistent manner and do what he / she says he / she will do*" (Spekman et al. 1998, pp. 56)

Suppliers' trust towards buying firms leads to numerous benefits in supply chain activities such as encouraging suppliers' involvement, investment, collaboration, information sharing, sustainability practices and improving suppliers' performance (Kim et al., 2018; Zhao et al., 2018; Ramon-Jeronimo et al., 2017; Zaefarian et al., 2016; Li et al., 2015; Nyaga et al., 2010; Laaksonen et al., 2008). Investment in fostering suppliers' trust often results in economic benefits and reducing transaction costs (Dyer and Chu, 2003). Nonetheless, suppliers' opportunistic behaviours can be minimised as trust leads to the reduction of perceived risks and uncertainty in supply relationships (Yawar and Seuring, 2015; Chen et al., 2011). Suppliers' trust towards buying firms is extremely prevalent when the buying firms' dependency on suppliers is high. If the dependency on suppliers is high but buying firms failed to foster suppliers' trust on them, there is a high possibility that suppliers can develop opportunistic behaviours (Laaksonen et al., 2008; Zhang and Huo, 2013; Zhao et al., 2018). The ability of a buying firm to foster suppliers' trust on them will enhance suppliers' initiatives towards RSC practices as they will feel confident and secure to work together with the buying firms in achieving such missions. At the same time, suppliers are willing to share information and knowledge, collaborate, and even involve themselves in designing RSC practices and activities that can be used throughout supply networks (Inkpen and Tsang, 2005; Zhang et al., 2012).

However, buying firms should realise that they are responsible for fostering suppliers' trust. Through a transformational leadership style, a buying firm tends to work collaboratively with

suppliers, providing any necessary assistance, support and motivation. In these situations, suppliers will assume that the buying firm is concerned about their success (Birasnav et al., 2015). Nevertheless, the nature of transformational SCL drives buying firms to mentor and coach suppliers, and to encourage them to express their ideas and improving their strengths (Roman, 2017; Teoman and Ulengin, 2018). By being actively involved in the discussion with suppliers, providing feedback and suggestions, as well as providing rewards when necessary, the value of buyer-supplier relationships can be optimised (Delbufalo, 2012). At the same time, as a great amount of information will be shared across the supply network, assistance and support (including training) will be provided to the suppliers by the buying firms, suppliers will be confident in the relationship (Sako and Helper, 1998; Dyer and Chu, 2000; Hemmert et al., 2016). This leads to a higher extent of trust between suppliers and the buying firms.

Nonetheless, transactional SCL (which includes clarifying and specifying suppliers' roles and buying firms' expectations) can help suppliers to understand buying firms in a better way (Birasnav et al., 2015). The practice of monitoring and auditing suppliers leads the buying firm to have close communication and can foster collaboration. By having close communication and contact, uncertainty about buying firm behaviours can be reduced; this increases the suppliers' trust (Ramon-Jeronimo et al., 2017). Furthermore, the existence of clear and fair reward mechanisms has a positive effect on the trust towards buying firm (Zaefarian et al., 2016; Hemmert et al., 2016; Yawar and Seuring, 2018). Given the potential direct relationships between SCL and trust, and trust and RSCP, the third and fourth hypotheses are proposed as:

> H3: Trust positively mediates the relationship between transformational leadership and RSCP.
>
> H4: Trust positively mediates the relationship between transactional leadership and RSCP.

2.3.2 Legal-Legitimate Power and Contractual Governance

In supply chain relationships, the interactions normally occur between two or more parties, which have different interests and objectives. Opportunism, disagreement and conflict might arise as each party strives towards their own benefits and goals, thus signalling the need for contractual governance (Bai et al., 2016). Contractual governance has been identified as a pivotal tool for facilitating and monitoring supply chain relationships and performance (Yang and Lien, 2018). Contractual governance relies on the use of formal contracts, legal contracts, explicit contracts or legal safeguards to manage the relationship between buying firms and suppliers (Williamson, 2008; Liu et al., 2009; Carey and Lawson, 2011; Cao and Lumineau, 2015; Wang et al., 2016). A formal contract or legal agreement which is considered as an *instrument of control*, is the official written document specifying supply chain partners' obligations and expectations (Williamson, 1985, 1991; Lumineau and Henderson, 2012).

One of the main purposes of having contracts is to exert control or influence over the supply chain members with the assistance, enforcement or involvement of another party including the legal system (Lumineau and Henderson, 2012). This indicates the readiness of the buying firm to exert legal-legitimate power (hereafter power) towards their suppliers (Maloni and Benton, 2000; Nyaga et al., 2010). Usually, *ex ante* details are outlined in the contracts to facilitate the monitoring process of supply chain members (Carey and Lawson, 2011). Moreover, the contract is designed to plan for unforeseen circumstances, and to ensure agreement on issues such as quality, price, quantity and specifications of the products (Carey and Lawson, 2011).

A contract might consist of a number of clauses, requirements, obligations and non-compliance settlements (such as penalties) (Williamson, 1985; Yu et al., 2006; Carey and Lawson, 2011). Using contract and power, buying firms are able to promote suppliers' adherence. RSC practices can be stipulated in the contracts, allowing the buying firms to reduce suppliers' non-conformance behaviours; furthermore, by exerting power using a contract, the buying firms will be able to improve supplier performance as suppliers will try to avoid any conflict with the buying firms that might lead to legal disputes (Sancha et al., 2016; Wacker et al., 2016). Nonetheless, suppliers will try to avoid breaching the contracts as it can lead to financial (such as order or payment delay) and non-financial (such as loss of future business) losses (Um and Kim, 2018; Yang and Lien, 2018).

The central idea of transformational leadership is the ability of the leader to inspire followers, so that they will transcend the expectations or normal performance, and at the same time develop followers' self-interest to excel and commit with leaders' plan (Hartog et al., 1997; Bass et al., 2003). On the other hand, the nature of transactional leaders is to identify performance requirements and ensure that the followers adhere to expectations (Hartog et al., 1997; Bass and Bass, 2008; Whittington et al., 2009). The main motive of leading the followers (or suppliers) is to ensure that the buying firms' plan is executed as intended. Thus, both leadership styles will significantly contribute to a greater exercise of power, which will also lead to better performance of the suppliers in adopting RSC practices. Again, given the potential direct relationships between SCL and power, and power and RSCP, the fifth and sixth hypotheses are proposed as:

> H5: Power positively mediates the relationship between transformational leadership and RSCP.
>
> H6: Power positively mediates the relationship between transactional leadership and RSCP.

2.4 Proposed Research Framework

The proposed research framework and hypotheses are shown in Figure 1, indicating five constructs and the relationships among each other.

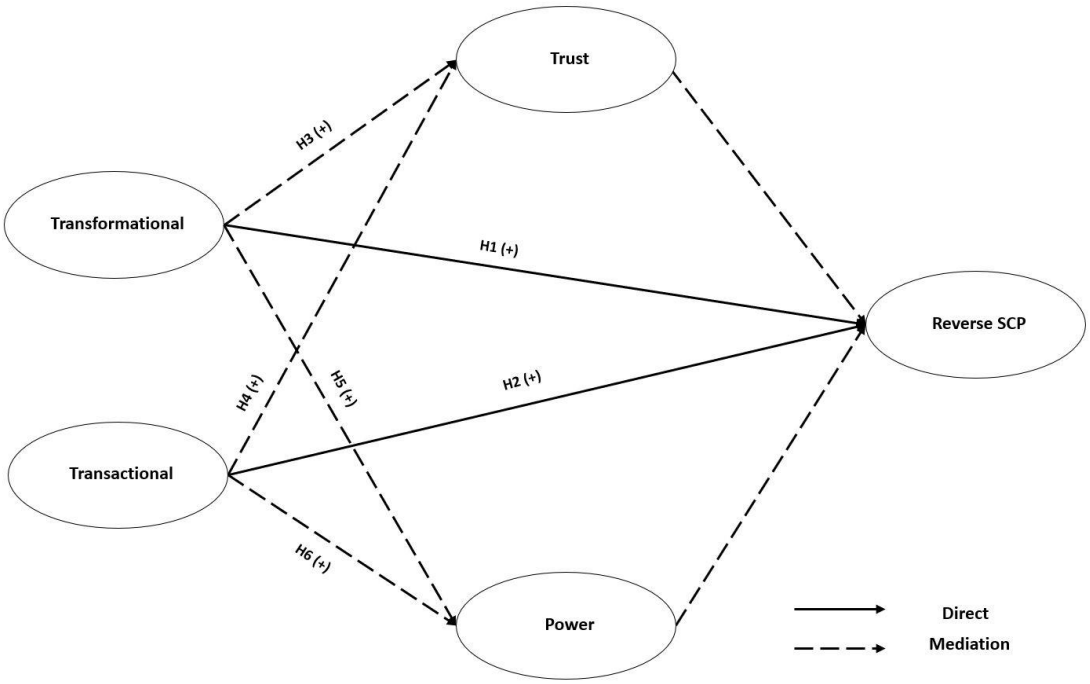

Figure 1: Research Framework and Hypotheses

3. Research Methodology

A seven-point Likert scale survey was designed to capture suppliers' perceived level of buying firms' leadership styles, suppliers' trust on buying firms, power exhibited by buying firms and current suppliers' RSCP. Prior to data collection, two phases of content validity were executed. Pre-testing sessions with three experienced researchers were conducted to get feedback on the validity of the constructs. The questionnaire items were modified and emailed to 17 experts: statisticians (3), academics with expertise in supply chain management practices (6) and industry experts (8) for their feedback on the questionnaire structure and its readability, resulting in more complete and clear instruments in the final version of the survey questionnaire.

3.1 Measures and Control Variables

The measures for transformational and transactional leadership were adapted from Defee et al. (2010), Hult et al. (2000a; 2007) and Avolio et al. (1999). The items in the questionnaire were designed to capture the leadership styles exhibited by the buying firms towards their suppliers. Measures for trust were adapted from Doney and Cannon (1997), which were designed to capture suppliers' trust towards their buying firm. Measures for power were adapted from Maloni and Benton (2000). The questions for power were aimed at capturing the exercise of legal-legitimate power by the buying firms towards their suppliers. Finally, measures for suppliers' RSCP were adapted from Hazen et al. (2015) and; Olugu and Wong (2012) (see also the Table 2). Two items were used as control variables, which are firms' size and their position in the supply chain (Tier-1, Tier-2 or Tier-3 suppliers).

3.2 Survey Design and Sample Characteristics

The questionnaire was distributed using online platforms (Qualtrics and email) and during suppliers' briefing events. Respondents for this study included top, middle and lower managers across various sectors including automotive, steel, oil and gas, fast moving consumer goods (FMCG), pharmaceutical, tobacco, rubber, chemicals, electronics and machinery. The survey sample was identified using the Federation of Malaysia Manufacturers directory and the research team's own industrial contacts. In total, 830 survey questionnaires were distributed and 225 participants responded. The final responses were 190 as 35 responses were removed due to significant incomplete or missing data (giving a 23% response rate). Table 4 shows the background characteristics of the sample.

Table 4: Sample Background Characteristics

	Frequency	Percent
Firm's Size		
Micro (less than 5 employees)	3	1.6
Small (6-75 employees)	51	26.8
Medium (76-200 employees)	68	35.8
Large (more than 200 employees)	68	35.8
Industry		
Automotive	42	22.1
Electrical and Electronics	32	16.8
Metal and Machinery	29	15.3
Rubber and Plastics	26	13.7
Chemicals	16	8.4
Others (Multiple Industries / Sectors)	12	6.3
Oil and Gas	8	4.2
Textile	5	2.6
Packaging and Printing	5	2.6
Food and Beverages	4	2.1
Agriculture	3	1.6
Steel	3	1.6
Furniture	2	1.1
Pharmaceutical	1	0.5
Tobacco	1	0.5
Toys	1	0.5
Respondent's Position		
Middle Management (Senior General Manager, General Manager, Senior Manager, Manager of Operations, Production, R&D, Sales or Marketing)	101	53.2
Senior Management (President, Chief Executive Officer, Chief Operating Officer, Managing Director, Director)	68	35.8
Lower Management (Engineer, Supervisor, Team Leader)	21	11.1
Respondent's Experience in the Firm		
More than 10 years	82	43.2
2-5 years	60	31.6
6-10 years	39	20.5
Less than 1 year	9	4.7
Firm's Position in the Supply Chain		
Tier 1 (Direct Suppliers to the buying firm / Components Suppliers e.g.: Denso, Continental, Sensata Technologies)	120	63.2
Tier 2 (Sub-Components Suppliers to Tier 1 suppliers that then supplies them to buying firm)	45	23.7
Tier 3 (Raw materials suppliers e.g.: Steel, Plastic, Glass, Rubber)	25	13.2
Interaction with Focal Firm		

Yes (Interact with focal firm)	181	95.3
No (No interaction with focal firm)	9	4.7

3.3 Data Screening

The screening processes employed included: missing data checking, outlier detection, normality testing and multicollinearity testing. Mean substitution was used as the approach to deal with missing data as it allows to keep as many responses as possible. Two main steps in detecting outliers were used: (i) boxplot examination; (ii) comparison of the mean value of the item with its 5% trimmed mean (Pallant, 2016). The dataset used for this research did not suffer from extreme outliers and so no response was removed, transformed or modified. Furthermore, the dataset did not contain extreme skewness and kurtosis based on the approach recommended by Hair et al. (2014b), with both values within the range of -1 to +1. The multicollinearity test revealed that there was no multicollinearity between the independent variables as the tolerance value was more than .10 and the variance inflation factor (VIF) was less than 10.

3.4 Exploratory Factor Analysis

The principal axis factoring extraction method with Promax Rotation was used to identify the latent variables and their respective items. Sampling adequacy was measured using the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests, revealing that factor analysis was useful for the data in this study (KMO for all constructs were higher than 0.8; the significance value was less than 0.001). After removing all cross-loaded (items loaded into more than one factor) and low-communality (below 0.5) items, the result was a total of 48 items loaded onto five latent factors. The top three items (in terms of factor loading) were utilised in order to represent each factor. The practice of using items with the highest loadings (or surrogate items) is common as those items have a greater influence on their respective factor (Dubey et al., 2015; Hair et al., 2014a). Hence, 15 items were retained for subsequent examination using confirmatory factor analysis. Retained items and their factor loadings are shown in Table 5 (full results of the EFA and item total statistics are shown in the Supplementary Materials section – see Tables S1 and S2 respectively).

Table 5: Exploratory Factor Analysis Result

	TFL (1)	**TSL (2)**	**TR (3)**	**POW (4)**	**RSCP (5)**
Buying firm talks enthusiastically about what needs to be accomplished in the supply chain	0.936				
Buying firm clarifies the central purpose underlying their supply chain actions	0.910				
Buying firm spends time teaching and coaching us	0.907				
Buying firm tracks our company mistakes		0.963			
Buying firm concentrates their full attention on dealing with our mistakes		0.922			
Buying firm concentrates on our failures		0.993			
When making important decisions, the buying firm considers our welfare as well as its own			0.898		
Buying firm keeps our best interests in mind			0.937		

Buying firm is honest with our company			0.947		
Buying firm often refers to a portion of an agreement to gain our compliance on a particular request				0.887	
Buying firm makes a point to refer to any legal agreement when attempting to influence us				0.895	
Buying firm uses sections of our sales agreement as a "tool" to get us to agree to their demands				0.915	
Cost of retrieving returned products					0.860
Cost of storing returned products					0.866
Cost of remanufacturing, replenishment and reproduction of returned products					0.874

TFL – Transformational Leadership; TSL – Transactional Leadership; TR – Trust; POW – Power; RSCP – Reverse Supply Chain Performance

3.5 Confirmatory Factor Analysis

AMOS v23 was used to analyse the proposed structural and measurement model. By using the five-factor model (transformational leadership, transactional leadership, trust, power and reverse performance) identified during the EFA, the initial measurement model was created. As shown in Table 6, the measurement model was statistically adequate.

Table 6: Model Fit Indices for Measurement Model

Model Fit Index	Value
Chi-square ($\chi 2$)	118.924
Degrees of freedom (df)	80.000
Chi-square goodness-of-fit ($\chi 2$/df)	1.487
Goodness of fit index (GFI)	0.923
Normed fit index (NFI)	0.950
Comparative fit index (CFI)	0.983
Tucker-Lewis index (TLI)	0.977
Bollen's incremental fit index (IFI)	0.983
Standardised root mean squared residual (SRMR)	0.042
Root mean squared error of approximation (RMSEA)	0.056
pClose	0.456

3.5.1 Model Reliability and Validity

Average variance extracted (AVE) was used to estimate convergent and discriminant validity. Table 7 shows that the square root of average variance extracted (AVE) was higher than the cut-off value of 0.50 recommended by Hair et al., (2014b) for all factors. It can be specified that the items in the latent factors were measuring at least 79.6% of their own factor rather than any other (the lowest AVE value was 0.796 for transformational leadership).

As illustrated in Table 8, the lowest Cronbach's alpha ($\boldsymbol{\alpha}$) was 0.810 (transformational leadership), higher than the recommended cut-off value (0.7) (Pallant, 2016). This indicates that all items within the same factor were measuring the same attribute. Similarly, the lowest composite reliability (CR) value was 0.836 (again, transformational leadership), higher than the cut-off value of 0.70 (Hair et al., 2011).

The tests confirmed that the factors used in the model were not having any reliability as well as convergent and discriminant validity issues.

Table 7: Square Root for AVE and Bivariate Correlations

	Transformational	Transactional	Trust	Power	RSCP
Transformational	*0.796*				
Transactional	0.231	*0.911*			
Trust	0.619	0.211	*0.918*		
Power	0.179	0.500	0.284	*0.889*	
RSCP	0.406	0.358	0.397	0.397	*0.881*

***square root of AVE in italics**

Table 8: Model Reliability

	α	CR	AVE
Transformational	0.810	0.836	0.633
Transactional	0.935	0.936	0.830
Trust	0.939	0.941	0.842
Power	0.916	0.918	0.790
RSCP	0.912	0.912	0.776

3.5.2 Common Method Bias and Measurement Model Invariance Test

As a single method (questionnaire survey) was used to gather data on the independent (predictor) and dependent (criterion) variables, there was a possibility for common method variance and bias. By using an approach proposed by Podsakoff et al. (2003), a common method bias test using a common latent factor (CLF) was carried out. The test revealed that there was no significant difference on the standardised regression weight before and after the common latent factor was added. Thus, it can be concluded that no common method bias was reported for this study. The invariance test for the measurement model was conducted in order to identify the consistency of the factor structure on different groups. Two groups were tested which are: (i) Tier 1 Firms vs Tier 2 and Tier 3 Firms; (ii) Small and Medium Enterprises (SMEs) vs Large Corporations. The test showed an insignificant difference for the chi-squared statistic between the unconstrained and fully constrained models across the four multi-groups, indicating that the factor structure was consistent across all groups in the dataset. These findings confirmed that the dataset met the condition for configural invariance (same structure across groups) (Dimitrov, 2010; Milfont and Fischer, 2010).

4. Findings

As shown in Table 9, the overall fit of the hypothesised structural model was adequate. All hypotheses were tested while controlling for the firm's size and their supply chain position. The direct and mediation tests were conducted independently on the full model to ensure greater clarity and parsimony.

Table 9: Model Fit Indices for Structural Model

Model Fit Index	Value
Chi-square ($\chi 2$)	166.782
Degrees of freedom (df)	110.000
Chi-square goodness-of-fit ($\chi 2$/df)	1.516
Goodness of fit index (GFI)	0.908
Normed fit index (NFI)	0.931
Comparative fit index (CFI)	0.975
Tucker-Lewis index (TLI)	0.969
Bollen's incremental fit index (IFI)	0.975
Standardised root mean squared residual (SRMR)	0.072
Root mean squared error of approximation (RMSEA)	0.052
pClose	0.394

4.1 Direct Relationship Between Supply Chain Leadership and Reverse Supply Chain Performance

This study reveals that transformational and transactional-based SCL contributed to suppliers' RSCP. Figure 2 shows the beta values (β) and significance level of the relationship between SCL and RSCP. Findings revealed that the relationship between transformational leadership was positively significant towards RSCP (β = .336, p <.001). The findings discovered that transactional leadership was also positively significant towards RSCP (β = .275, p <.001).

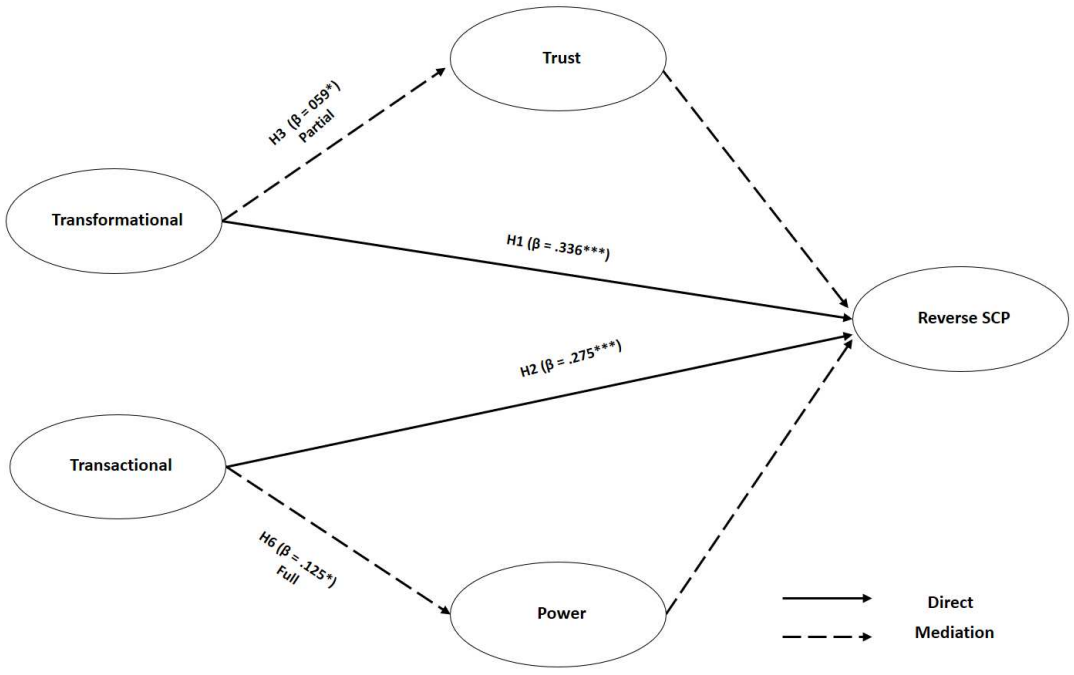

Figure 2: Structural Model and Findings

4.2 The Mediating Effects of Trust and Power

The second objective of this study is to understand the underlying reasons for explaining the relationship between SCL and supplier's RSCP by testing the mediating role of two governance mechanisms, trust and power. The data were bootstrapped to 5,000 samples and the 95% of

confidence interval was used to determine the significance of the indirect effects at the lower 2.5th and upper 97.5th percentiles. The findings discovered that trust and power were both significant as mediators towards RSCP. As shown in Table 10, trust partially mediated the relationship between transformational leadership and RSCP, while power fully mediated the relationship between transactional leadership and RSCP.

Table 10: The Relationship between Trust, Power and Supply Chain Performance

Relationship	Direct Effect Without Mediator	Direct Effect With Mediator	Indirect Effect (95% Bias-corrected CI)	Bootstrap CI		Remarks
				Lower	Upper	
Transformational→Trust→RSCP	.336***	.198*	.059*	0.031	0.260	Partial
Transactional→Trust→RSCP	.275***	.262***	.017 NS	-0.100	0.610	No
Transformational→Power→RSCP	.336***	.322***	.017 NS	-0.024	0.093	No
Transactional→Power→RSCP	.275***	.155NS	.125*	0.030	0.249	Full

Notes: *p <0.05; ** p <0.01; *** p <0.001, NS – Not significant

5. Discussion

Table 11 shows the summary of the hypotheses testing. The findings suggest that by exhibiting transformational leadership, a buying firm is able to cultivate suppliers' initiatives toward RSC orientation. Moreover, a transformational-based buying firm is usually characterised by the willingness to provide encouragement and training to supply chain partners. This nature of transformational leadership will help suppliers to cooperate in achieving mutual sustainability goals (Vivaldini and Pires, 2016; Roman, 2017;). Nevertheless, as the buying firms are willing to share resources and teach the suppliers, sustainability initiatives are most likely to be attained by having knowledge transfer and learning (L'Hermitte et al., 2016; Gosling et al., 2017;).

Table 11: Summary of Hypotheses Testing

Hypotheses	Result
H1: Transformational leadership is positively related to RSCP.	Accepted
H2: Transactional leadership is positively related to RSCP.	Accepted
H3: Trust mediates the relationship between transformational leadership and RSCP.	Accepted
H4: Trust mediates the relationship between transactional leadership and RSCP.	Rejected
H5: Power mediates the relationship between transformational leadership and RSCP.	Rejected
H6: Power mediates the relationship between transactional leadership and RSCP.	Accepted

Even though most literature in this domain argued that transformational leadership is the sole contributor towards supply chain performance, this study found that the role of transactional leadership should not be ignored by scholars and practitioners. This affirms that transactional leadership, which is leaning towards controlling and monitoring the suppliers, can play a role towards the improvement of RSCP. A buying firm that is exhibiting transactional SCL is most likely to have a close monitoring system on their suppliers. This is initially to ensure suppliers'

compliance and adherence so that the performance of the buying firm is not compromised. However, this approach indirectly influences suppliers' RSCP.

As the recent practice in the industry forces the buying firms to shift their attention towards sustainability, they also have to ensure that their supply chain partners, especially upstream suppliers, are able to provide and collaborate with them (Silvestre, 2015; Agi and Nishant, 2017). The buying firms now need more cooperation from their suppliers in order to recycle and replenish their products to achieve the sustainability goals. In order to ensure suppliers' commitment, frequent monitoring and audit sessions are held; such activities might also go beyond first-tier suppliers (Gong et al., 2018). This can be supported by the descriptive finding indicating that 95.3% of the firms in the sample have a direct contact with their buying firms regardless of their position in the supply chain.

The second main finding of this study reveals the role of trust and power as the variables that account or are responsible for the relationship between SCL and RSCP. Partial mediation indicates that only a certain portion of the relationship is explained by the mediator, whereas full mediation indicates that the association between SCL an RSCP is fully explained by the mediator. It was also found that the relationship between transformational leadership and RSCP was partially mediated by trust. By exhibiting transformational leadership, buying firms are able to enhance suppliers' trust on their firm, which in the end influences RSCP. Thanks to the inspirational, motivational and intellectually stimulating role played by the buying firm, suppliers tend to believe that buying firms are transparent and honest with them (Venselaar et al., 2015; Birasnav et al., 2015). Due to that, they are willing to innovate and invest more to improve their operations (also with reference to RSC elements).

At the same time, it was found that the relationship between transactional leadership was fully mediated by power, as the nature of transactional leaders is to apply reward and punishment schemes, as well as highly monitoring and auditing approaches. This will lead them to exercise high power as the instruments to ensure suppliers' obligation and obedience towards their requirements (Blome et al., 2017). By exercising high power, suppliers will carefully monitor their own performance, so that they will not violate the contract that can cause them subsequent penalty including business termination. Their adherence to the contracts and requirements by the buying firms lead them to improve their RSCP practices.

6. Conclusions and Future Research Directions

The findings of this study offer guidance to firms across supply chains on the role of buying firm's leadership approaches and its influence towards the operationalisation of RSC practices, which represent an implementation of CE strategies at an inter-organisational level. Results of the study indicate the existence of a direct relationship between SCL and RSCP, with transformational and transactional leadership approaches leading to higher suppliers' RSCP. Moreover, this research found that trust and power were significant mediators between SCL and suppliers' RSCP. The relationship between transformational leadership and RSCP was partially explained by trust, while the relationship between transactional leadership and suppliers' RSCP was fully explained by power. It is apparent that transformational leadership improves suppliers' trust of the buying firm, while transactional leadership increased the perception of power exercised by the buying firms. Both leadership approaches led to a higher RSCP, even if through different mechanisms. This phenomenon can be explained further by saying that transformational leadership uses trust as the main instrument to enhance suppliers'

RSCP, whereas transactional leadership uses power as the main instrument to achieve the same goal.

This research contributes to the emerging literature strand concerned with supply chain leadership (Defee et al., 2009; Gosling et al., 2017), by expanding the classical intra-organisational leadership to inter-organisational leadership from the perspective of the SCM environment. Even though this is not the first study that expands classical leadership theory into the supply chain context, this research offers first attempt to examine the role of buying firms' leadership to improve RSCP. The result affirms that the role of the buying firms' leadership behaviours is significant towards RSCP, thus filling the gap of insufficient studies about SCL in RSCs. Secondly, this study further validates SCL concepts by combining leadership behaviours and governance mechanisms to improve suppliers' RSCP. Finally, this research further contributes to operations and SCM literature by proposing that a combination of both transactional and transformational leadership approaches should be implemented in order to improve suppliers' performance, and at the same time to strive towards the implementation of RSC practices through the supply chains.

This study also suffers with a few limitations. Specifically, although the considered sample size is sufficient, a larger sample could improve the generalisability of findings. Furthermore, the research focuses on a dyadic relationship between the buying firm and its immediate upstream suppliers, which limits the SCL concept to be explained as leadership of buying firms in contrast to the recent work of Jia et al. (2018). While Jia et al. (2018) emphasised on the role of focal firms, particularly multi-national corporations (MNCs), in orchestrating sustainability activities of their multi-tier upstream suppliers, this study focuses on the role of the buying firms in improving their immediate suppliers' RSCP from a dyadic perspective. Nonetheless, Jia et al. (2018) conceptualised governance mechanism from a *relational* perspective; this study operationalises the same construct from an *instrument* perspective (dealing with suppliers' trust and legal-legitimate power).

Furthermore, since a cross-sectional survey design was adopted, key informant and common method bias are expected. Purposive sampling was adopted in order to deal with the key informant bias; a common latent factor test was conducted for investigating the common method bias. Such issues could have been further reduced if a mixed-methods research design was adopted (Krause et al., 2018; Montabon et al., 2018).

In order to address such limitations, future research can examine the SCL concept further beyond dyadic interactions, by looking at the ability of the buying firm to influence the sustainability practices of its supply chain members across multiple tiers (as suggested by Jia et al., 2018). Thus, future studies could adopt, at least, a triadic approach to examine the buying firm's leadership approach penetration beyond tier-1 suppliers. However, it should be noted that, very often, the responsibility to manage suppliers' sustainability practices relies on direct buying firms rather than on focal firms, as, in most of the cases, the focal firm does not have any contractual relationship with suppliers beyond the first tier (Wilhelm et al., 2016).

In addition, more emphasis could be placed on the co-existence of different leadership styles, examining whether a buying firm can exhibit different kinds of leadership approaches towards different suppliers and the combined effect of transactional and transformational leadership styles. Furthermore, the role of SCL and governance mechanisms towards the social dimension of RSCP could be explored, given the recent focus on holistic views of the CE, which go beyond economic and environmental performance (Kirchherr et al., 2017).

As this research has relied on a quantitative method, the generalisation of the results can be attained; however, an in-depth explanation of the phenomenon is missing. Indeed, as the relationship with each supplier is unique, different leadership approaches might be needed and the concept of relying only on one type of leadership (either just transformational or transactional) and generalizing it to all buyer-supplier relationships is extremely perilous. Qualitative methods (such as expert interviews) would contribute highly to the supply chain literature by having a comprehensive explanation of SCL role towards the realisation of RSCP. Furthermore, given the fact that SCL is a relational-based concept, it could be useful to examine the concept in different contexts including different industries (such as the service industry) and countries.

References

Abdi, M. & Aulakh, P. S. (2012). Do Country-Level Institutional Frameworks and Interfirm Governance Arrangements Substitute or Complement in International Business Relationships. *Journal of International Business Studies*, 43(5), 477–497.

Agi, M. A. N. & Nishant, R. (2017). Understanding Influential Factors on Implementing Green Supply Chain Management Practices: An Interpretive Structural Modelling Analysis. *Journal of Environmental Management*, 188, 351–363.

Avolio, B. J., Bass, B. M. & Jung, D. I. (1999). Re-Examining the Components of Transformational and Transactional Leadership Using the Multifactor Leadership. *Journal of Occupational and Organizational Psychology*, 72(4), 441–462.

Bai, X., Sheng, S. & Li, J. J. (2016). Contract Governance and Buyer-Supplier Conflict: The Moderating Role of Institutions. *Journal of Operations Management*, 41, 12–24.

Bass, B. M. (1990). From Transactional to Transformational Leadership: Learning to Share the Vision. *Organizational Dynamics*, 18(3), 19–31.

Bass, B. M. & Avolio, B. J. (1990). Developing Transformational Leadership: 1992 and Beyond. *Journal of European Industrial Training*, 14(5), 21–27.

Bass, B. M., Avolio, B. J., Jung, D. I. & Berson, Y. (2003). Predicting Unit Peformance by Assessing Transformational and Transactional Leadership. *Journal of Applied Psychology*, 88(2), 207–218.

Bass, B. M. & Bass, R. B. (2008). *The Bass Handbook of Leadership: Theory, Research & Managerial Applications*. New York: Free Press.

Birasnav, M. (2013). Implementation of Supply Chain Management Practices: The Role of Transformational Leadership. *Global Business Review*, 14(2), 329–342.

Birasnav, M., Mittal, R. & Loughlin, S. (2015). Linking Leadership Behaviors and Information Exchange to Improve Supply Chain Performance: A Conceptual Model. *Global Journal of Flexible Systems Management*, 16(2), 205–217.

Blome, C., Foerstl, K. & Schleper, M. C. (2017). Antecedents of Green Supplier Championing and Greenwashing: An Empirical Study on Leadership and Ethical Incentives. *Journal of Cleaner Production*, 152, 339–350.

Blome, C., Schoenherr, T. & Kaesser, M. (2013). Ambidextrous Governance in Supply Chains: The Impact on Innovation and Cost Performance. *Journal of Supply Chain Management*, 49(4), 59–80.

Bstieler, L. & Hemmert, M. (2015). The Effectiveness of Relational and Contractual Governance in New Product Development Collaborations: Evidence from Korea. *Technovation*, 45–46, 29–39.

Burkert, M., Ivens, B. S. & Shan, J. (2012). Governance Mechanisms in Domestic and International Buyer-Supplier Relationships: An Empirical Study. *Industrial Marketing Management*, 41(3), 544–556.

Cai, S., Yang, Z. & Hu, Z. (2009). Exploring the Governance Mechanisms of Quasi-Integration in Buyer-Supplier Relationships. *Journal of Business Research*, 62(6), 660–666.

Cao, M. & Zhang, Q. (2011). Supply Chain Collaboration: Impact on Collaborative Advantage and Firm Performance. *Journal of Operations Management*, 29(3), 163–180.

Cao, Z. & Lumineau, F. (2015). Revisiting the Interplay between Contractual and Relational Governance: A Qualitative and Meta-Analytic Investigation. *Journal of Operations Management*, 33–34, 15–42.

Capaldo, A. & Giannoccaro, I. (2015). How Does Trust Affect Performance in the Supply Chain? The Moderating Role of Interdependence. *International Journal of Production Economics*, 166, 36–49.

Carey, S. & Lawson, B. (2011). Governance and Social Capital Formation in Buyer-Supplier Relationships. *Journal of Manufacturing Technology Management*, 22(2), 152–170.

Centobelli, P., Cerchione, R. & Esposito, E. (2017). Environmental Sustainability in the Service Industry of Transportation and Logistics Service Providers: Systematic Literature Review and Research Directions.

Transportation Research Part D: Transport and Environment, 53, 454–470.
Chan, F. T. S. & Kumar, N. (2007). Global Supplier Development Considering Risk Factors Using Fuzzy Extended AHP-Based Approach. *Omega*, 35, 417–431.
Chen, J. V., Yen, D. C., Rajkumar, T. M. & Tomochko, N. A. (2011). The Antecedent Factors on Trust and Commitment in Supply Chain Relationships. *Computer Standards and Interfaces*, 33(3), 262–270.
Defee, C. C., Esper, T. & Mollenkopf, D. (2009). Leveraging Closed-Loop Orientation and Leadership for Environmental Sustainability. *Supply Chain Management: An International Journal*, 14(2), 87–98.
Defee, C. C., Stank, T. P. & Esper, T. (2010). Performance Implications of Transformational Supply Chain Leadership and Followership. *International Journal of Physical Distribution & Logistics Management*, 40(10), 763–791.
Delbufalo, E. (2012). Outcomes of Inter-organizational Trust in Supply Chain Relationships: A Systematic Literature Review and a Meta-analysis of the Empirical Evidence. *Supply Chain Management: An International Journal*, 17(4), 377–402.
Dimitrov, D. M. (2010). Testing for Factorial Invariance in the Context of Construct Validation. *Measurement and Evaluation in Counseling and Development*, 43(2), 121–149.
Doney, P. M. & Cannon, J. P. (1997). An Examination of the Nature of Trust in Buyer-Seller Relationships. *Journal of Marketing*, 61(2), 35.
Dong, W., Ma, Z. & Zhou, X. (2017). Relational Governance in Supplier-Buyer Relationships: The Mediating Effects of Boundary Spanners' Interpersonal Guanxi in China's B2B Market. *Journal of Business Research*, 78, 332–340.
Dubey, R., Altay, N., Gunasekaran, A., Blome, C., Papadopoulos, T. & Childe, S. J. (2018). Supply Chain Agility, Adaptability and Alignment: Empirical Evidence from the Indian Auto Components Industry. *International Journal of Operations & Production Management*, 38(1), 129–148.
Dubey, R., Gunasekaran, A., Childe, S. J., Papadopoulos, T. & Helo, P. (2018). Supplier Relationship Management for Circular Economy. *Management Decision*, MD-04-2018-0396.
Dubey, R., Gunasekaran, A. & Samar Ali, S. (2015). Exploring the Relationship between Leadership, Operational Practices, Institutional Pressures and Environmental Performance: A Framework for Green Supply Chain. *International Journal of Production Economics*, 160, 120–132.
Dyer, J. H. & Chu, W. (2000). The Determinants of Trust in Supplier-Automaker Relationships in the U.S., Japan, and Korea. *Journal of International Business Studies*, 31(2), 259–285.
Dyer, J. H. & Chu, W. (2003). The Role of Trustworthiness in Reducing Cost of Improving Performance: Empirical Evidence from the United States, Japan and Korea. *Organization Science*, 14(1), 57–68.
Fawcett, S. E., Fawcett, A. M., Jin, Y. H. & Magnan, G. (2017). I Know It When I See It: The Nature of Trust, Trustworthiness Signals, & Strategic Trust Construction. *International Journal of Logistics Management*, 28(4), 914–938.
Gabler, C. B., Panagopoulos, N., Vlachos, P. A. & Rapp, A. (2017). Developing an Environmentally Sustainable Business Plan: An International B2B Case Study. *Corporate Social Responsibility and Environmental Management*, 24(4), 261–272.
Geissdoerfer, M., Savaget, P., Bocken, N. M. P. & Hultink, E. J. (2017). The Circular Economy – A New Sustainability Paradigm? *Journal of Cleaner Production*, 143, 757–768.
Genovese, A., Acquaye, A. A., Figueroa, A. & Koh, S. C. L. (2017). Sustainable Supply Chain Management and the Transition towards a Circular Economy: Evidence and Some Applications. *Omega*, 66, 344–357.
Genovese, A., Lenny Koh, S. C., Bruno, G. & Esposito, E. (2013). Greener Supplier Selection: State of the Art and Some Empirical Evidence. *International Journal of Production Research*, 51(10), 2868–2886.
Genovese, A., Lenny Koh, S. C., Kumar, N. & Tripathi, P. K. (2014). Exploring the Challenges in Implementing Supplier Environmental Performance Measurement Models: A Case Study. *Production Planning & Control*, 7287(July 2014), 1–14.
Ghosh, A. & Fedorowicz, J. (2008). The Role of Trust in Supply Chain Governance. *Business Process Management Journal*, 14(4), 453–470.
Gong, Y., Jia, F., Brown, S. & Koh, S. C. L. (2018). Supply Chain Learning of Sustainability in Multi-Tier Supply Chains: A Resource Orchestration Perspective. *International Journal of Operations & Production Management*, 38(4), 1061–1090.
Gosling, J., Jia, F., Gong, Y. & Brown, S. (2017). The Role of Supply Chain Leadership in the Learning of Sustainable Practice: Toward an Integrated Framework. *Journal of Cleaner Production*, 140, 239–250.
Guide, V. D. R., Harrison, T. P. & Van Wassenhove, L. N. (2003). The Challenge of Closed-Loop Supply Chains. *Interfaces*.
Gunasekaran, A., Papadopoulos, T., Dubey, R., Wamba, S. F., Childe, S. J., Hazen, B. & Akter, S. (2017). Big Data and Predictive Analytics for Supply Chain and Organizational Performance. *Journal of Business Research*, 70, 308–317.

Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2014a). *Multivariate Data Analysis*. Essex: Pearson Education Limited.
Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2014b). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Los Angeles: Sage Publications Inc.
Hair, J. F., Ringle, C. M. & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139–152.
Hartog, D. N., Muijen, J. J. & Koopman, P. L. (1997). Transactional versus Transformational Leadership: An Analysis of the MLQ. *Journal of Occupational and Organizational Psychology*, 70(1), 19–34.
Hazen, B. T., Overstreet, R. E., Hall, D. J., Huscroft, J. R. & Hanna, J. B. (2015). Antecedents to and Outcomes of Reverse Logistics Metrics. *Industrial Marketing Management*, 46, 160–170.
Heide, J. B. (1994). Interorganizational Governance in Marketing Channels. *Journal of Marketing*, 58(1), 71.
Hemmert, M., Kim, D. S., Kim, J. & Cho, B. Y. (2016). Building the Supplier's Trust: Role of Institutional Forces and Buyer Firm Practices. *International Journal of Production Economics*, 180, 25–37.
Hernández-Espallardo, M., Rodríguez-Orejuela, A. & Sánchez-Pérez, M. (2013). Inter-organizational Governance, Learning and Performance in Supply Chains. *Supply Chain Management: An International Journal*, 15(2), 101–114.
Hult, G. T. M., Ferrell, O. C., Hurley, R. F. & Giunipero, L. C. (2000). Leadership and Relationship Commitment: A Focus on the Supplier-Buyer-User Linkage. *Industrial Marketing Management*, 29(2), 111–119.
Hult, G. T. M., Hurley, R. F., Giunipero, L. C. & Nichols, E. L. (2000). Organizational Learning in Global Purchasing: A Model and Test of Internal Users and Corporate Buyers. *Decision Sciences*, 31(2), 293–322.
Hult, G. T. M., Ketchen, D. J. & Chabowski, B. R. (2007). Leadership, the Buying Center, and Supply Chain Performance: A Study of Linked Users, Buyers, and Suppliers. *Industrial Marketing Management*, 36(3), 393–403.
Inkpen, A. C. & Tsang, E. W. K. (2005). Social Capital, Networks and Knowledge Transfer. *Academy of Management Review*, 30(1), 146–165.
Ireland, R. D. & Webb, J. W. (2007). A Multi-Theoretic Perspective on Trust and Power in Strategic Supply Chains. *Journal of Operations Management*, 25(2), 482–497.
Jap, S. D. & Ganesan, S. (2000). Control Mechanisms and the Relationship Life Cycle: Implications for Safeguarding Specific Investments and Developing Commitment. *Journal of Marketing Research*, 37(2), 227–245.
Jia, F., Gong, Y. & Brown, S. (2018). Multi-Tier Sustainable Supply Chain Management: The Role of Supply Chain Leadership. *International Journal of Production Economics*.
Judge, T. A. & Piccolo, R. F. (2004). Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity. *Journal of Applied Psychology*, 89(5), 755–768.
Kannan, D. (2018). Role of Multiple Stakeholders and the Critical Success Factor Theory for the Sustainable Supplier Selection Process. *International Journal of Production Economics*, 195, 391–418.
Kim, D., Jean, R. J. B. & Sinkovics, R. R. (2018). Drivers of Virtual Interfirm Integration and Its Impact on Performance in International Customer–Supplier Relationships. *Management International Review*, 58(3), 495–522.
Kirchherr, J., Reike, D. & Hekkert, M. (2017). Conceptualizing the Circular Economy: An Analysis of 114 Definitions. *Resources, Conservation and Recycling*, 127, 221–232.
Kocabasoglu, C., Prahinski, C. & Klassen, R. D. (2007). Linking Forward and Reverse Supply Chain Investments: The Role of Business Uncertainty. *Journal of Operations Management*, 25(6), 1141–1160.
Krause, D., Luzzini, D. & Lawson, B. (2018). Building the Case for A Single Key Informant in Supply Chain Management Survey Research. *Journal of Supply Chain Management*, 54(1), 42–50.
Kurucz, E. C., Colbert, B. A., Lüdeke-Freund, F., Upward, A. & Willard, B. (2017). Relational Leadership for Strategic Sustainability: Practices and Capabilities to Advance the Design and Assessment of Sustainable Business Models. *Journal of Cleaner Production*, 140, 189–204.
L'Hermitte, C., Tatham, P., Bowles, M. & Brooks, B. (2016). Developing Organisational Capabilities to Support Agility in Humanitarian Logistics. *Journal of Humanitarian Logistics and Supply Chain Management*, 6(1), 72–99.
Laaksonen, T., Pajunen, K. & Kulmala, H. I. (2008). Co-Evolution of Trust and Dependence in Customer-Supplier Relationships. *Industrial Marketing Management*, 37(8), 910–920.
Li, Y., Li, G. & Feng, T. (2015). Effects of Suppliers' Trust and Commitment on Customer Involvement. *Industrial Management and Data Systems*, 115(6), 1041–1066.
Liao, K., Sharkey, T. W., Ragu-Nathan, T. S. & Vonderembse, M. (2012). Trust-Driven Joint Operational Activities to Achieve Mass Customization: A Culture Perspective. *Benchmarking*, 19(4), 585–603.
Liu, Y., Li, Y., Shi, L. H. & Liu, T. (2017). Knowledge Transfer in Buyer-Supplier Relationships: The Role of Transactional and Relational Governance Mechanisms. *Journal of Business Research*, 78, 285–293.

Liu, Y., Luo, Y. & Liu, T. (2009). Governing Buyer-Supplier Relationships through Transactional and Relational Mechanisms: Evidence from China. *Journal of Operations Management*, 27(4), 294–309.
Lockstrom, M., Schadel, J., Moser, R. & Harrison, N. J. (2010). Successful Supplier Integration in the Chinese Automotive Industry: A Theoretical Framework. *International Journal of Integrated Supply Management*, 5(3), 260.
Lumineau, F. & Henderson, J. E. (2012). The Influence of Relational Experience and Contractual Governance on the Negotiation Strategy in Buyer-Supplier Disputes. *Journal of Operations Management*, 30(5), 382–395.
Maestrini, V., Luzzini, D., Caniato, F. & Ronchi, S. (2018). Effects of Monitoring and Incentives on Supplier Performance: An Agency Theory Perspective. *International Journal of Production Economics*.
Maloni, M. & Benton, W. C. (2000). Power Influences in the Supply Chain. *Journal of Business Logistics*, 21(l), 49–73.
Mathivathanan, D., Kannan, D. & Haq, A. N. (2018). Sustainable Supply Chain Management Practices in Indian Automotive Industry: A Multi-Stakeholder View. *Resources, Conservation and Recycling*, 128, 284–305.
Meinlschmidt, J., Schleper, M. C. & Foerstl, K. (2018). Tackling the Sustainability Iceberg: A Transaction Cost Economics Approach to Lower Tier Sustainability Management. *International Journal of Operations and Production Management*, 38(10), 1888–1914.
Milfont, T. L. & Fischer, R. (2010). Testing Measurement Invariance across Groups : Applications in Cross-. *International Journal of Psychological Research*, 3(1), 111–121.
Montabon, F., Daugherty, P. J. & Chen, H. (2018). Setting Standards for Single Respondent Survey Design. *Journal of Supply Chain Management*, 54(1), 35–41.
Müller-Seitz, G. & Sydow, J. (2012). Maneuvering between Networks to Lead – A Longitudinal Case Study in the Semiconductor Industry. *Long Range Planning*, 45(2–3), 105–135.
Murray, A., Skene, K. & Haynes, K. (2017). The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context. *Journal of Business Ethics*.
Nasir, M. H. A., Genovese, A., Acquaye, A. A., Koh, S. C. L. & Yamoah, F. (2016). Comparing Linear and Circular Supply Chains: A Case Study from the Construction Industry. *International Journal of Production Economics*.
Nooteboom, B., Berger, H. & Noorderhaven, N. G. (1997). Effects of Trust and Governance on Relational Risk. *Academy of Management Journal*, 40(2), 308–338.
Nyaga, G. N., Whipple, J. M. & Lynch, D. F. (2010). Examining Supply Chain Relationships: Do Buyer and Supplier Perspectives on Collaborative Relationships Differ? *Journal of Operations Management*, 28(2), 101–114.
Olugu, E. U. & Wong, K. Y. (2012). An Expert Fuzzy Rule-Based System for Closed-Loop Supply Chain Performance Assessment in the Automotive Industry. *Expert Systems with Applications*, 39(1), 375–384.
Overstreet, R. E., Hanna, J. B., Byrd, T. A., Cegielski, C. G. & Hazen, B. T. (2013). Leadership Style and Organizational Innovativeness Drive Motor Carriers toward Sustained Performance. *The International Journal of Logistics Management*, 24(2), 247–270.
Pallant, J. (2016). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS*. Berkshire: Open University Press.
Panayides, P. M. & Lun, Y. H. V. (2009). The Impact of Trust on Innovativeness and Supply Chain Performance. *Intern. Journal of Production Economics*, 122, 35–46.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y. & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5), 879–903.
Poppo, L. & Zenger, T. (2002). Do Formal Contracts and Relational Governance Function as Substitutes or Complements? *Strategic Management Journal*, 23(8), 707–725.
Prahinski, C. & Kocabasoglu, C. (2006). Empirical Research Opportunities in Reverse Supply Chains. *Omega*, 34, 519–532.
Ramon-Jeronimo, J. M., Florez-Lopez, R. & Ramon-Jeronimo, M. A. (2017). Understanding the Generation of Value along Supply Chains: Balancing Control Information and Relational Governance Mechanisms in Downstream and Upstream Relationships. *Sustainability (Switzerland)*, 9(8).
Roman, A. V. (2017). Institutionalizing Sustainability: A Structural Equation Model of Sustainable Procurement in US Public Agencies. *Journal of Cleaner Production*, 143, 1048–1059.
Sako, M. & Helper, S. (1998). Determinants of Trust in Supplier Relations: Evidence from the Automotive Industry in Japan and the United States. *Journal of Economic Behavior and Organization*, 34(3), 387–417.
Sancha, C., Wong, C. W. Y. & Gimenez Thomsen, C. (2016). Buyer-Supplier Relationships on Environmental Issues: A Contingency Perspective. *Journal of Cleaner Production*, 112, 1849–1860.
Sarkis, J. (2003). A Strategic Decision Framework for Green Supply Chain Management. *Journal of Cleaner Production*, 11(4), 397–409.

Seppänen, R., Blomqvist, K. & Sundqvist, S. (2007). Measuring Inter-Organizational Trust—a Critical Review of the Empirical Research in 1990–2003. *Industrial Marketing Management*, 36(2), 249–265.
Seuring, S. & Müller, M. (2008). From a Literature Review to a Conceptual Framework for Sustainable Supply Chain Management. *Journal of Cleaner Production*, 16, 1699–1710.
Shaharudin, M. R., Govindan, K., Zailani, S., Tan, K. C. & Iranmanesh, M. (2017). Product Return Management: Linking Product Returns, Closed-Loop Supply Chain Activities and the Effectiveness of the Reverse Supply Chains. *Journal of Cleaner Production*, 149, 1144–1156.
Shahzad, K., Ali, T., Takala, J., Helo, P. & Zaefarian, G. (2018). The Varying Roles of Governance Mechanisms on Ex-Post Transaction Costs and Relationship Commitment in Buyer-Supplier Relationships. *Industrial Marketing Management*, 71, 135–146.
Silvestre, B. S. (2015). Sustainable Supply Chain Management in Emerging Economies: Environmental Turbulence, Institutional Voids and Sustainability Trajectories. *International Journal of Production Economics*, 167, 156–169.
Soleimani, H., Seyyed-Esfahani, M. & Kannan, G. (2014). Incorporating Risk Measures in Closed-Loop Supply Chain Network Design. *International Journal of Production Research*.
Spekman, R. E., Kamauff, J. W. & Myhr, N. (1998). An Empirical Investigation into Supply Chain Management: A Perspective on Partnerships. *Supply Chain Management*, 3(2), 53–67.
Szekely, F. & Strebel, H. (2013). Incremental, Radical and Game-Changing: Strategic Innovation for Sustainability (G. Lenssen, Mollie Painter, Aileen Ion, Ed.). *Corporate Governance: The international journal of business in society*, 13(5), 467–481.
Teoman, S. & Ulengin, F. (2018). The Impact of Management Leadership on Quality Performance throughout a Supply Chain: An Empirical Study. *Total Quality Management and Business Excellence*, 29(11–12), 1427–1451.
Um, K. H. & Kim, S. M. (2018). The Effects of Supply Chain Collaboration on Performance and Transaction Cost Advantage: The Moderation and Nonlinear Effects of Governance Mechanisms. *International Journal of Production Economics*.
Vachon, S. & Klassen, R. D. (2006). Extending Green Practices across the Supply Chain. *International Journal of Operations & Production Management*, 26(7), 795–821.
Venselaar, M., Gruis, V. & Verhoeven, F. (2015). Implementing Supply Chain Partnering in the Construction Industry: Work Floor Experiences within a Dutch Housing Association. *Journal of Purchasing and Supply Management*, 21(1), 1–8.
Vivaldini, M. & Pires, S. R. I. (2016). Sustainable Logistical Operations: The Case of McDonald's Biodiesel in Brazil. *International Journal of Logistics Systems and Management*, 23(1), 125.
Wacker, J. G., Yang, C. & Sheu, C. (2016). A Transaction Cost Economics Model for Estimating Performance Effectiveness of Relational and Contractual Governance: Theory and Statistical Results. *International Journal of Operations and Production Management*, 36(11), 1551–1575.
Wang, M., Zhang, Q., Wang, Y. & Sheng, S. (2016). Governing Local Supplier Opportunism in China: Moderating Role of Institutional Forces. *Journal of Operations Management*, 46, 84–94.
Whittington, J. L., Coker, R. H., Goodwin, V. L., Ickes, W. & Murray, B. (2009). Transactional Leadership Revisited: Self-Other Agreement and Its Consequences. *Journal of Applied Social Psychology*, 39(8), 1860–1886.
Williamson, O. E. (1985). *The Economic Institutions of Capitalism*. New York: Macmillan Inc.
Williamson, O. E. (1991). Comparative Economic Organization : The Analysis of Discrete Structural Alternatives Economic. *Administrative science quarterly*, 36(2), 269–296.
Williamson, O. E. (2008). Outsourcing: Transaction Cost Economics and Supply Chain Management. *Journal of Supply Chain Management*, 44(2), 5–16.
Yammarino, F. J., Spangler, W. D., Bass, B. M. & leadership., P. T. B. B. (1985) theory of transformational and transactional. (1993). Transformational Leadership and Performance: A Longitudinal Investigation. *The Leadership Quarterly*, 4(1), 81–102.
Yang, C. & Lien, S. (2018). Governance Mechanisms for Green Supply Chain Partnership. *Sustainability*, 10(8), 2681.
Yawar, S. A. & Seuring, S. (2015). Management of Social Issues in Supply Chains: A Literature Review Exploring Social Issues, Actions and Performance Outcomes. *Journal of Business Ethics*.
Yawar, S. A. & Seuring, S. (2018). The Role of Supplier Development in Managing Social and Societal Issues in Supply Chains. *Journal of Cleaner Production*, 182, 227–237.
Yu, C. M. J., Liao, T. J. & Lin, Z. D. (2006). Formal Governance Mechanisms, Relational Governance Mechanisms, and Transaction-Specific Investments in Supplier-Manufacturer Relationships. *Industrial Marketing Management*, 35(2), 128–139.
Zaefarian, G., Najafi-Tavani, Z., Henneberg, S. C. & Naudé, P. (2016). Do Supplier Perceptions of Buyer Fairness

Lead to Supplier Sales Growth? *Industrial Marketing Management*, 53, 160–171.
Zaheer, A., McEvily, B. & Perrone, V. (1998). Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance. *Organization Science*, 9(2), 141–159.
Zhang, M. & Huo, B. (2013). The Impact of Dependence and Trust on Supply Chain Integration. *International Journal of Physical Distribution and Logistics Management*, 43(7), 544–563.
Zhang, X., Chen, W., Tong, J. & Liu, X. (2012). Relational Mechanisms, Market Contracts and Cross-Enterprise Knowledge Trading in the Supply Chain: Empirical Research Based on Chinese Manufacturing Enterprises. *Chinese Management Studies*, 6(3), 488–508.
Zhao, X., Pan, J. & Song, Y. (2018). Dependence on Supplier, Supplier Trust and Green Supplier Integration: The Moderating Role of Contract Management Difficulty. *Sustainability (Switzerland)*, 10(5).

Appendix

Measurement Items

In this section, please indicate the extent of leadership approaches exhibited by your immediate buying firm. To what extend would you agree or disagree with the following statements in relation to buying firms' leadership approaches? 1- Strongly Disagree, 7 – Strongly Agree

Buying firm goes beyond its self-interest for the good of the supply chain ***(TFL)***

*Buying firm talks enthusiastically about what needs to be accomplished in the supply chain ***(TFL)***

*Buying firm clarifies the central purpose underlying their supply chain actions ***(TFL)***

Buying firm displays power and confidence ***(TFL)***

Buying firm seeks different views when solving supply chain issues ***(TFL)***

Buying firm suggests new ways in solving supply chain issues ***(TFL)***

Our company is encouraged to express ideas ***(TFL)***

*Buying firm spends time teaching and coaching us ***(TFL)***

Our company gets individual consideration ***(TFL)***

Buying firm encourages us to improve our strengths ***(TFL)***

Buying firm lets us know what is expected of us in the supply chain process ***(TSL)***

Buying firm encourages the use of uniform procedures in the supply chain process ***(TSL)***

Buying firm decides what shall be done and how it will be done in the supply chain process ***(TSL)***

Buying firm maintains definite standards of performance in the supply chain process ***(TSL)***

Buying firm asks that we follow established purchasing rules and procedures ***(TSL)***

Buying firm rewards our company for achievement ***(TSL)***

Our company is punished for fault and misconduct such as late delivery ***(TSL)***

*Buying firm tracks our company mistakes ***(TSL)***

*Buying firm concentrates their full attention on dealing with our mistakes ***(TSL)***

*Buying firm concentrates on our failures ***(TSL)***

In this section, please indicate the extent of trust between your firm and your immediate buying firm. To what extent would you agree or disagree with the following statements in relation to trust? 1 – Strongly Disagree, 7 – Strongly Agree

Buying firm keeps their promises to our company ***(TR)***

We believe to the information provided by the buying firm ***(TR)***

Buying firm is concerned about our business success ***(TR)***

*When making important decisions, the buying firm considers our welfare as well as its own ***(TR)***

We find it is necessary to be cautious with the buying firm ***(TR)***

*Buying firm keeps our best interests in mind ***(TR)***

*Buying firm is honest with our company ***(TR)***

Buying firm is transparent with our company ***(TR)***

Buying firm will exploit our vulnerabilities ***(TR)***

Buying firm will not expose our production planning and drawings to other parties ***(TR)***

We are willing to invest in new infrastructure or facilities to fulfil buying firm's needs ***(TR)***

Buying firm is trustworthy ***(TR)***

In this section, please indicate the extent of power (contractual / legal) exercised by your immediate buying firm. To what extent would you agree or disagree with the following statements in relation to power (contractual / legal) exercised by the buying firm? 1 – Strongly Disagree, 7 – Strongly Agree

*Buying firm often refers to a portion of an agreement to gain our compliance on a particular request ***(POW)***

*Buying firm makes a point to refer to any legal agreement when attempting to influence us ***(POW)***

*Buying firm uses sections of our sales agreement as a "tool" to get us to agree to their demands ***(POW)***

In this section, please rate your firm's supply chain performance by comparing it to industry benchmark. Please express your judgement to each statement by ticking the most appropriate option. 1 – Extremely Poor, 7 – Excellent

Cost of processing recyclable products

*Cost of retrieving returned products

*Cost of storing returned products

*Cost of remanufacturing, replenishment and reproduction of returned products

Availability of recyclable / reusable materials in products

Availability of material recovery plan and warranty returns

Ability to remanufacture and refurbish returned products

Lead-time for unsold products to be remanufactured / refurbished

Lead-time for warranty returns products to be remanufactured/refurbished

Lead-time product recycling and reuse

Ability to incorporate traditional practices with reverse supply chain practices i.e.: dismantling parts and recycle

Ability to provide new infrastructure for new products research and development

Ability to produce products with high reusable and recyclable materials

*items selected for confirmatory factor analysis (CFA)

TFL – Transformational Leadership; TSL – Transactional Leadership; TR – Trust; POW – Power; RSCP – Reverse Supply Chain Performance