

Drivers of sub-supplier social sustainability compliance: An emerging economy perspective

V. G. Venkatesh; Abraham Zhang; Eric Deakins; Mani Venkatesh

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Abstract

Purpose: Tragic incidents like the *Rana Plaza* building collapse call into question the value and effectiveness of supplier codes of conduct (SCC) used in multi-tier supply chains. This paper investigates the drivers of sub-supplier social sustainability compliance from the perspective of suppliers that adopt a double agency role by complying with buyer-imposed SCC while managing sub-supplier compliance on behalf of the buyer.

Design/Methodology: This research adopts a sequential, mixed-methods approach. The qualitative phase develops a conceptual model with the aid of the extant literature and semi-structured interviews with 24 senior manufacturing professionals. The quantitative phase uses hierarchical regression analysis to test the conceptual model using survey data from 159 apparel suppliers based in India.

Findings: The findings reveal that sub-supplier compliance is positively impacted by effective buyer-supplier governance and by the focal supplier having a strategic partnership with the sub-supplier. Conversely, price pressure on sub-suppliers adversely impacts their compliance, while the institutional pressure on them to comply is generally ineffective.

Research Limitations: The context of the study is limited to the apparel manufacturing industry in India.

Practical implications: To improve SCC compliance rates, buyers and focal suppliers should actively develop strategic partnerships with selected upstream supply chain actors; should set a reasonable price across the supply chain; and, should include specific sub-supplier compliance requirements in the supply contract. The findings also suggest the need to develop social sustainability protocols that are cognisant of regional contexts.

Originality/Value: Given the absence of prior research on SCC implementation by sub-suppliers, this study represents a pioneering empirical study into such multi-tier sourcing arrangements. It provides strong support that sub-supplier governance arrangements differ from those typically found in the focal supplier layer. It also provides empirical evidence of the critical factors that encourage sub-supplier compliance within the apparel industry of an emerging economy.

Keywords: Sustainability, Garment industry, India, Empirical study, Suppliers

Type: Research paper

1. Introduction

The global apparel retailers increasingly require their suppliers to comply with social sustainability requirements (Rahim, 2017), with such obligations often stipulated in a supplier code of conduct (SCC). The SCC establishes guidelines for such factors as workplace health and safety, work hours and overtime limits, reasonable wages, and enforcement of child labour laws among many others (Jiang, 2009; Mani & Gunasekaran, 2018; Mani et al., 2018a). A common practice by the global production networks is for the focal supplier to utilise sub-suppliers, perhaps to source raw material or subcontract production activities to achieve cost, flexibility, or capability advantages. Achieving supplier compliance in such a multi-tier/multi-level supply chain is particularly challenging because focal supplier responsibility extends ‘down’ to the echelon of the sub-suppliers (Awaysheh & Klassen, 2010; Grimm et al., 2014; Perry et al., 2015; Guo et al., 2015; Huq et al., 2016; Wilhelm et al., 2016). Although Grimm et al. (2016) define an indirect supplier to be a sub-supplier, this study defines a sub-supplier as a partner organisation that helps the focal supplier to fulfil its supply chain commitments with additional capacity and process capability. For example, in the apparel industry, sub-suppliers perform such processes as washing, printing, and dyeing. More often than not, these contractors are undeclared to the international brand/primary customer (Huq et al., 2014).

The consequences of SCC non-compliance are perhaps most clearly illustrated by major industrial disasters, such as the *Rana Plaza* building collapse in Bangladesh in 2013, with the loss of 1134 lives. Moreover, other incidents such as the Foxconn employee suicides, India’s Bhiwandi factory collapse, Unilever’s labour exploitation scandal, and the Dhaka and Karachi fires have increased concerns about the effectiveness of SCC implementation within the various supply chain layers (The Economist Report, 2012; WSJ Report, 2013; Barber, 2017; Huq & Stevenson, 2018). Such incidents not only damage brand reputation but creates alarm that leads to monitoring and governance issues, and increased concern about compliance standards and their implementation. For example, the resulting public outrage over working conditions in factories manufacturing on behalf of reputable brands like Walmart, Primark, and Benetton led to questions about the motivations and ethics of overseas buyers, factory owners, law enforcement agencies, and even governments (Marshall et al., 2015; Lee & Rammohan, 2017; Huq & Stevenson., 2018). The inherent complexities of a highly fragmented production network dominated by small and medium-sized enterprises and subcontractors (Mezzadri, 2014) underscores the importance of exploring SCC implementation in multi-tier sourcing environments (Huq et al., 2014). However, the extant literature lacks a clear description of the sub-supplier sustainability dynamics (Grimm et al., 2016).

Quantitative studies of noncompliance behaviour have only recently been a focus in the literature, and few of those have explored SCC compliance from the supplier perspective (Jiang, 2009; Mani & Gunasekaran, 2018; Huq & Stevenson, 2018). Value chains located in regionally developing economies and industry settings are deemed especially worthy of empirical study (Sodhi, 2015; Lee & Tang, 2017; Mani et al., 2018b). This research adopts a focal supplier perspective due to a dual agency role in which the supplier is responsible for the noncompliance behaviour of its sub-suppliers while also reporting sustainability across its production cycle; a phenomenon known as a 'chain liability' (Choi & Hong, 2002; Hartmann & Moeller, 2014; Wilhelm et al., 2016; Soundarrajan & Brammer, 2018).

The extant literature on social sustainability emphasises unmanaged social issues that cause disruption, risk, reputational damage (Eltantawy et al., 2009; Mani et al., 2018a), and describes how improved management leads to benefits including better operational performance (Sancha et al., 2015). However, detailed research into the drivers of social sustainability adoption focusing on the sub-supplier linkage is only emerging now. For example, Sancha et al. (2015) promote the role of institutional pressures, i.e., normative, coercive and mimetic, and firm-specific capabilities (supplier integration), and Marshall et al. (2015b) observed that social sustainability compliance drivers in the supply chain include the presence of a sustainability culture and entrepreneurial orientation. Others have established that buyer pressure, having a sustainability culture, regulatory pressure, and social organisation pressure are essential drivers that lead to social sustainability adoption in the upstream supply chain (Mani & Gunasekaran, 2018). As the social issues are time dependant, dynamic and contextual, it is interesting to know their drivers in different emerging economy contexts, where there can be a significant direct impact on bottom-level workers (Dobers & Halme, 2009; Werner, 2009). However, studies to date primarily emphasise upstream supply chain social sustainability and focus on the focal organisation's first-tier suppliers. They are also silent about sub-supplier social sustainability, and many of them involve a developed nation context.

Consequently, we judged a quantitative study from the focal supplier's perspective the ablest to provide profound insights into sub-supplier management, which is a perennial challenge in global value chain governance. Suppliers often adopt a double agency role by complying with buyer-imposed SCC while managing sub-supplier compliance on behalf of the buyer (Wilhelm et al., 2016). Thus, this research explores SCC implementation in the sub-supplier echelon from the focal supplier's perspective (Soundarrajan & Brammer, 2018; Mani & Gunasekaran, 2018). In particular, it focuses on the fundamental question: *What are the critical drivers of sub-supplier social sustainability compliance?*

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3 In the absence of research with a sub-supplier focus, this study represents a pioneering
4 empirical study into multi-tier sourcing arrangements within the apparel industry of a regionally
5 emerging economy. A mid-level theory development approach is adopted to gain insights into the
6 sub-supplier echelon of a complex global production network through the lens of the focal
7 supplier. The study uses a sequential, exploratory mixed methods approach involving both
8 qualitative and quantitative paradigms, as our research question demands in-depth analysis and the
9 problem domain lacks empirical evidence regarding sub-supplier governance. A conceptual model
10 was derived using the extant literature and semi-structured interviews with 24 senior
11 manufacturing professionals. The model is empirically validated via a hierarchical regression
12 analysis using survey data from 159 apparel suppliers based in India.
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21 The study makes several vital contributions that advance knowledge about sub-supplier
22 governance and SCC implementation. It highlights how institutional support is ineffective during
23 SCC adoption and shows that price pressure adversely impacts SCC implementation. The study
24 also deliberates the importance of providing unified buyers' guidelines to focal suppliers (regarding
25 sub-supplier SCC governance) that are region-specific, and it offers critical inputs to future policy
26 frameworks.
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31 Section 2 reviews relevant literature and Section 3 develops the conceptual model and
32 hypotheses. Section 4 explains data collection and analysis, while Section 5 discusses the findings.
33 Finally, two sections present theoretical and managerial implications and conclude the study with
34 suggestions for further work, respectively.
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39 **2. Literature Review**

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41 This review contains four sub-sections, concerned with supply chain compliance processes; social
42 sustainability and upstream supply chains; social issues, reputation, and performance benefits; and,
43 drivers of social sustainability in multi-tier environments.
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46 *2.1 Supply chain compliance*

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48 Due to increased complexity caused by global sourcing, many retailers are under enormous
49 pressure to regulate the social and environmental norms of their supply chain operations (Stigzelius
50 & Mark-Herbert, 2009). In turn, the suppliers to the global production networks are required to
51 comply with a range of norms concurrently (Kolk & Van Tulder, 2005; Rahim, 2017), and must
52 manage institutional and political pressures designed to promote and support compliance (Rahim,
53 2017). Thus, effective compliance management is especially critical and demanding within the
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labour-intensive supply chains of branded consumer products (Bremer & Udovich, 2001; Lee & Rammohan, 2017).

Compliance takes place through the combined effects of organisational policies, labour rules, and safety regulations that make use of transactional and relational approaches (Cao & Lumineau, 2015; Lawson, 2017; Yawar & Seuring, 2017; Mani et al., 2018a). Moreover, global certification schemes often validate the environmental and social compliance efforts (Pedersen & Andersen, 2006; LeBaron et al., 2017) that contribute to the sustainability performance of customers and reduce sustainability-related risks. Such schemes imply close supervision and continuous sustainability auditing that increases supply chain traceability (Castka & Balzarova, 2008). Buyers tradeoff cost with flexibility when choosing public social standards over private ones and suppliers prefer public standards due to their lower asset specificity (Asif et al., 2019). Regardless, all such efforts improve sustainability-focused alignment and encourage better integration with the sourcing function in supply chains (Foerstl et al., 2014).

2.2 Social sustainability and the upstream supply chain

The international apparel brands often struggle to manage the social sustainability of their global supply chain when SCC compliance obligations encompass several tiers of suppliers (Tachizawa & Yew Wong, 2014; Wilhelm et al., 2016; Yawar & Seuring, 2017). Reduced supply chain transparency (Tachizawa & Yew Wong, 2014) and reluctance by suppliers to comply with SCC requirements often mean that the focal suppliers are held responsible for ensuring the compliance of upstream raw material suppliers and sub-suppliers. Thus, focal (Tier-1) suppliers act as a middleman and assume a dual agency role for implementing social sustainability standards at both their own and sub-supplier locations (Wilhelm et al., 2016). This role requires them to closely monitor inhouse compliance at sub-supplier facilities (Tachizawa & Yew Wong, 2014; Lee & Rammohan, 2017).

Those suppliers responsible for selecting sub-suppliers in a multi-tier environment will aim to fulfil customer expectations and business objectives (Mena et al., 2013; Grimm et al., 2016) via coordination mechanisms designed to ensure social sustainability compliance. The first mechanism is hierarchical, wherein the focal supplier firm coordinates all activities, and the second is a market mechanism in which stakeholders, including sub-suppliers, take individual responsibility for complying with requirements (Ciliberti et al., 2011). Hierarchical mechanisms are the most prevalent for sub-supplier engagements in global value chains owing to the many priorities; including cost, process, and lead time requirements. These requirements lead the focal (Tier-1)

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3 suppliers to act as a buyer and a strategic outsourcing partner in a dual agency role (Wilhelm et al.,
4 2016). Depending on the level of global sourcing maturity and other considerations, a downstream
5 buyer may facilitate the selection of (preapproved) sub-suppliers from a ratified vendor list (Mena
6 et al., 2013).
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10 The practice of unannounced sub-supplier engagement is prevalent in the apparel
11 manufacturing industry (Huq et al., 2014), in which the sub-suppliers usually have no direct control
12 over the supply chain and lack knowledge of broader supply chain issues and operations. Thus,
13 failures by the supplier to monitor and control the social and environmental performance of its
14 sub-suppliers may cause a customer/buying agency to bypass that Tier-1 supplier and attempt a
15 direct relationship (Mena et al. 2013).
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20 21 *2.3. Social issues, reputation, and performance benefits*

22 Operational problems caused by unattended social issues within the supply network may impact
23 the performance of the whole supply chain and negatively impact the reputation of the brand
24 (Mani & Gunasekaran, 2018). For example, the clothing brand Zara, like Mattel Inc., was criticised
25 for the poor working conditions at its sub-supplier locations that were being managed by Tier-1
26 suppliers (Wilhelm et al., 2016). Also recently reported was the exploitation of female workers at
27 sub-supplier locations managed by Indian apparel suppliers to Next, C&A, Mother Care, and
28 H&M, among others (Soundararajan & Brammer, 2018). These incidents, if left unattended, may
29 lead to supply disruptions and supply chain risk in global supply chains (Klassen & Vereecke,
30 2012). On the other hand, well managed social issues in the supply chain results in performance
31 benefits for the focal firm; primarily operational, social and supply chain performances (Sancha et
32 al., 2015; Mani et al., 2018a,b).
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42 These incidents indicate that informal networks, order quantity, and market support all
43 contribute to sub-supplier social sustainability practices (Mair & Marti, 2009; Lund-Thompson &
44 Lindgreen, 2014). Cultural differences, inappropriate incentive structures, and supply chain
45 complexities may also impact social sustainability compliance (Awaysheh & Klassen, 2010). Hence,
46 there is likely to be no simple formula for assuring sub-supplier social sustainability compliance in
47 multi-tier apparel supply chains (Grimm et al., 2016). Additionally, social issues are time
48 dependant, contextual and dynamic, and are likely to vary geographically. The literature does not
49 appear to include many of these factors which, in practice, appear to drive sub-supplier compliance
50 directly or indirectly. Some sub-suppliers are resource-deprived, so might expect help from their
51 focal suppliers. This expectation implies that cost plays a crucial role in shaping sub-supplier
52 commitment, as those stakeholders often expect assurance of good returns and business continuity
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(Soundararajan & Brammer, 2018). Suppliers tend to address their stakeholders' needs according to the norms of the institutions under which they operate (Campbell, 2007). Hence, when pressured by competitors and regulatory norms, including SCCs, suppliers attempt to align tasks with local institutional dynamics when implementing socially responsible practices and also attempt to coerce their sub-suppliers into meeting those expectations (Zhu et al., 2013). However, very few studies appear to relate to this vital sub-supplier ecosystem or consider the effect of institutional pressures on social sustainability compliance.

It is challenging for a sub-supplier to perform to international standards when its business partners demand quality products and services at an unrealistically low cost. Suppliers that coerce sub-suppliers to comply with customer standards in this manner may prompt a decoupling behaviour that ultimately harms end-customer confidence (Grimm et al., 2016; Wilhelm et al., 2016). While such behaviour is often ascribed to environmental or social behaviour uncertainties, other factors include contractual agreement norms, power symmetry, and transparency of supply chains (Grimm et al., 2014). These possibilities still need to be empirically validated in a specific industry and regional setting, which further prompted this research to explore the dynamics of sub-supplier management (Grimm et al., 2016; Wilhelm et al., 2016).

2.4 Drivers of social sustainability in the upstream supply chain

Most sustainability supply chain studies have explored different social issues, social sustainability management, and performance benefits, although even here, research on emerging economies is at the emerging stage. However, studies into the factors that drive supplier social sustainability adoption/compliance in the upstream supply chain are gaining momentum (especially studies at the sub-supplier level). Ehrgott et al. (2011) confirmed the positive influence of mid-level employees, customers and government pressures on socially sustainable (upstream) supplier selection. Similarly, Marshall et al. (2015b) identified a sustainability culture and an entrepreneurial orientation to be drivers of basic and advanced social sustainability practices in Tier-1 suppliers in the context of developed nations. However, because global supply chains extend their supply reach into different geographies and suppliers, facilities located in another country might be subject to different institutional pressures that help shape the firm's response to sustainability.

Moreover, Sancha et al. (2015) assert that normative, mimetic and coercive institutional pressures influence sustainable supplier development. In a similar vein, Meixell & Luoma (2013) advocate the importance of stakeholder pressure in sustainability awareness, adoption, and compliance in the supply chain and, more recently, Mani & Gunasekaran (2018) confirmed the

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3 drivers of social sustainability adoption in emerging economies; concluding that customer
4 pressure, social, organisational pressure, regulatory compliance, and sustainability culture are
5 drivers of social sustainability. However, these studies mostly had general sustainability
6 perspectives encompassing both environmental and social measures.
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11 The operational dynamics of traditional (focal/direct) suppliers have been extensively studied
12 (Grimm et al., 2014). However, still lacking is detailed empirical research into sub-supplier
13 sustainability management practices despite recent interest in multi-tier supply chain sustainability
14 (Grimm et al., 2014; Wilhelm et al., 2016; Soundararajan & Brammer, 2018). Also, most social
15 sustainability studies take place in the context of a developed nation, with emerging nations only
16 recently receiving attention (Huq et al., 2014; Soundararajan & Brammer, 2018). Specifically, there
17 is a gap in studying sub-supplier sustainability management within the Indian apparel industry; a
18 complex global value chain in which sub-supplier engagement is common practice (De Neve,
19 2014). In particular, the recent work by Soundararajan & Brammer (2018) is limited to describing
20 the design of sub-supplier governance based on reciprocity and fairness. Consequently, there is
21 ample scope to explore how sub-suppliers can be managed by decoding the micro-level
22 interactions that shape the reality of sub-supplier social sustainability. Annexure 1 summarises the
23 associated literature regarding multi-tier, sub-supplier, and sustainability management.
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35 **3. Conceptual Model and Hypotheses Development**

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37 In the absence of substantive literature on *sub-supplier dynamics* and limited theory-building research
38 into compliance governance (Grimm et al., 2014), it was judged appropriate to utilise a mid-range
39 theory-building approach to gain new perspectives (Wacker, 1998). The study adopts a sequential,
40 exploratory, mixed-methods approach by combining interpretive and positivistic paradigms in
41 sequence to gain insights into multi-tier compliance governance (Creswell & Clark, 2011;
42 Venkatesh et al., 2013). A sequential narration method was adopted (first qualitative, then
43 quantitative) wherein the results of one methodology led to or motivated the use of another
44 methodology (Figure 1). This approach was preferred over a juxtaposition or parallel presentation
45 of results from different methods because it provides the opportunity to gain deeper understanding
46 via qualitative content analysis of how practitioners view the sub-supplier compliance
47 phenomenon. Moreover, it helps to develop a conceptual model backed by literature findings
48 validated via a quantitative survey in the second stage (Fawcett & Magnan, 2002; Park et al., 2018).
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58 These methods, in combination, were also helpful in overcoming a limitation of the model, that
59 of not incorporating real-life practice, and improved the generalisability of the measurement scales
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(Boyer & Swink, 2008). Recent social sustainability studies evidence a similar mid-range theory-building approach to gain new perspectives (e.g., Porteus et al., 2015), and there is also interest in mixed-methods research applications in supply chain studies (Golicic & Davis, 2012).

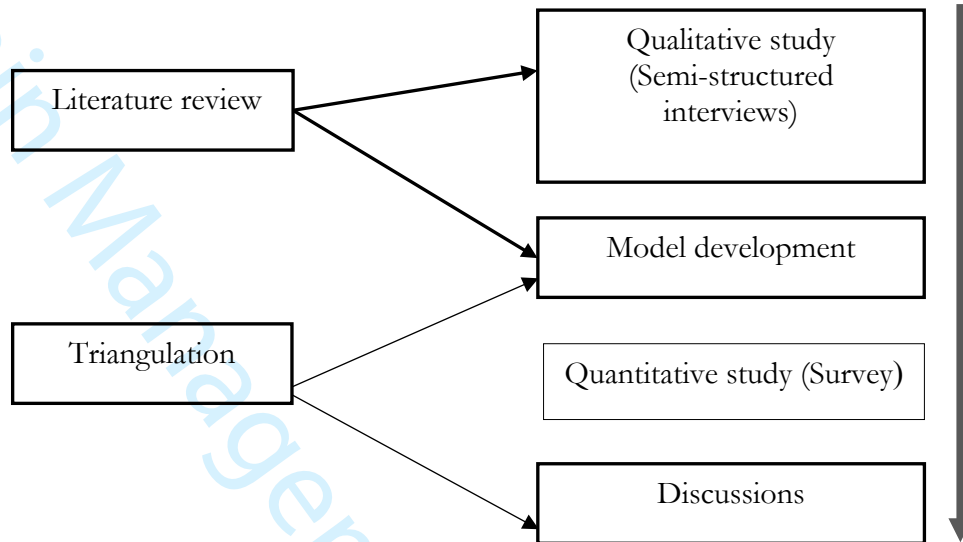


FIGURE 1 RESEARCH FRAMEWORK

India was chosen as the research setting because it is one of the major production hubs for the global apparel brands. Garment production accounts for around 14% of India's industrial production and 4% of its Gross Domestic Product, with a market value expected (*before the COVID-19 pandemic*) to be USD 82 billion by 2021 (IBEF Trade Report, 2017). The sector has highly skilled workers and is dominated by small and medium-sized enterprises that engage in declared and undeclared subcontracting agreements to meet business requirements.

Initially, semi-structured interviews investigated the factors that affect sub-supplier compliance governance in practice. This approach directly focused on the research topic and yielded insights into perceived causal inferences. As shown in Table 1, a convenience sample of 24 highly experienced professionals included factory heads, chief executive officers, and manufacturing consultants. Due to the expert specificity and the focus of the study, the respondents chosen to provide insights on sub-supplier governance were selected using a non-probabilistic purposive sampling strategy (Esenhardt & Graebner, 2007). Minimum selection requirements called for at least ten years' experience in sub-supplier management and critical account handling and knowledge of apparel industry SCC compliance. The initial selection of 30-35 participants also considered the availability and willingness to participate. Identification of participants was via personal contact and industry referral, both to assure accessibility and the likelihood of espousing candid insights. They represented each of the prominent Indian apparel manufacturing clusters

based in Bangalore, Chennai, Tirupur, and New Delhi. Annexure 2 provides further details. A constant comparison method identified the data saturation point of sampling beyond which there were no new insights, which was reached by the twenty-first participant and confirmed by continuing with three more participants (Strauss & Corbin 1998).

TABLE 01 PARTICIPANT PROFILE

Position in the industry sector	Experience (Average Years)	Number of participants
CEOs/Owners/Vice-Presidents/Senior Professionals (SP)	22	5
Manufacturing/Factory Heads (GM)	17	6
Business/Key Account Managers (KAM)	17	6
Manufacturing/Compliance Consultants (CO)	16	4
Compliance Audit/, CSR/Quality Executives (CA)	14	3

Individual interviews were of 40-50 minutes duration and held in informal settings. A two-step standard protocol identified and analysed the patterns that relate to exploring and explaining views on sub-supplier governance. The critical questions raised were:

- What are the primary drivers for your sub-suppliers to comply with your issued requirements?
- What are the main challenges of managing sub-supplier compliance?
- Do you keep buyers informed of sub-supplier arrangements?
- How do you trade-off between your business needs and compliance requirements?
- What are the additional measures taken to ensure sub-supplier compliance?

Following transcription, the in-depth interview responses provided the base data for conceptual model development using open, axial, and selective coding procedures and a constant comparison inductive approach (Strauss & Corbin, 1990; Braun & Clarke, 2006). Annexure 3 outlines the qualitative theme development, in which open coding identified the fundamental concepts expressed by participants explaining the antecedents of sub-supplier governance. The process involves identifying, categorising, and naming phenomena found in the text into discrete concepts, ideas, events, and acts, and assigning a code to represent the study area. Axial coding identifies

relationships between codes via the combination of inductive and deductive thinking. Axial coding developed broad categories reflecting open code commonalities, which reduced the number of concepts related to sub-supplier compliance. Then, the selective coding process identified five final constructs for the study (Strauss and Corbin, 1990).

Once there was consensus on the final coding, the process terminated. The iterative process helped to ensure interpretation consistency and enhanced the reliability of the coding. At this time, we contacted industry practitioners and researchers to seek explanations for discrepancies and conceptual clarifications. The final two-step validation process made use of guidelines provided by Creswell & Clark (2011) in a member-checking process with the original participants. By the final triangulation step, qualitative insights informed the finalised constructs, and the proposed model and its hypothesised relationships. The process was repeated with a selection of (new) industry practitioners following refinement of the model, and again, each construct was identified and finalised on a consensual basis. The literature provided theoretical constructs that reduced the number of codes used.

Figure 2 depicts the resulting conceptual model, containing factors which from the focal supplier perspective drive SCC compliance at the sub-supplier echelon.

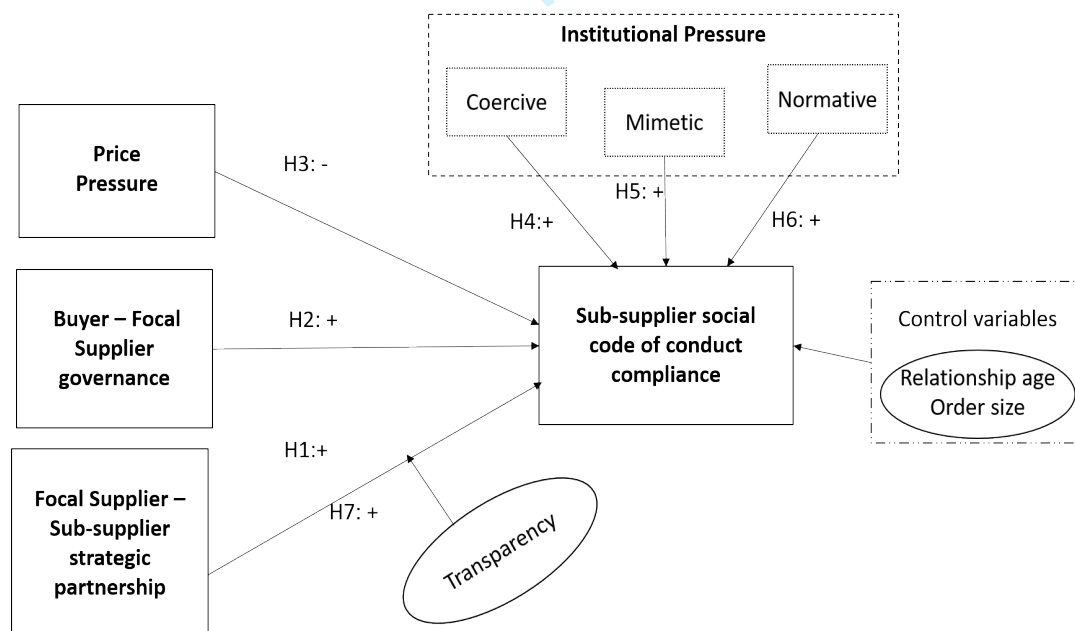


FIGURE 02. HYPOTHESISED RELATIONSHIPS

As indicated in Table 2, treated as exogenous variables are four constructs: *Focal Supplier–Sub-supplier strategic partnership*; *Buyer–Focal Supplier governance*; *Price pressure*; and, *Institutional pressure*. Also, considered to be a moderating factor for the effect of *Focal Supplier–Sub-supplier strategic partnership* on *Sub-supplier SCC compliance* is the *Transparency* construct. The constructs reflect overall resource requirements and propensity to adapt in a compliance environment. Conceptual understanding of the constructs and their hypothesised relationships is described below with the aid of the extant literature and participant feedback.

TABLE 02 DESCRIPTION OF CONSTRUCTS

<i>Constructs</i>	<i>Description</i>
Supplier-Sub-supplier strategic partnership	Strategic relationship between the focal suppliers and sub-suppliers. These sub-suppliers assist the focal (Tier-1) suppliers in the processes such embroidery, washing, printing, dyeing, sewing, and etc.
Buyer-Supply governance	Standard procedures and rules given by the buyers/brands (such as Wal-Mart and Nike) to the focal suppliers towards effective management of the sub-suppliers including their selection.
Price pressure	Price pressure exists across the supply chains
Institutional pressure	Coercive, normative, and mimetic pressures faced at the sub-supplier – supplier echelon.
Transparency	The level of information shared between suppliers and sub-suppliers

3.1 Hypotheses Development

3.1.1 Focal Supplier–Sub-supplier strategic partnership.

Achieving comprehensive SCC compliance in a global supply chain requires the commitment of every actor, even in outsourcing-dominated industries (Pedersen & Andersen, 2006; Grimm et al., 2016). From a compliance perspective, the supplier usually stipulates the norms expected of its sub-supplier and offers help toward achieving successful SCC implementation (Gimenez & Tachizawa, 2012). Extending the analogy given by Fink et al. (2006) for the customer-supplier relationship to the sub-supplier environment, the challenge is to balance supplier firm requirements with a sub-supplier contribution.

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3 A strategic supply partnership is recognised to be essential for assuring long-term associations
4 with external suppliers (Li et al., 2005). Such arrangements help both organisations to establish the
5 trust needed for mutual problem-solving and fulfilment of prespecified requirements. Because the
6 need for monitoring is minimal, joint value creation can be targeted via inter-organisational
7 information sharing, direct investment in sub-supplier operations, and assistance with technical,
8 human resource and other supply chain improvement issues (Pedersen & Andersen 2006). Carter
9 & Jennings (2004) report how a strategic association between a buyer organisation and a supplying
10 organisation positively impacts socially responsible practices. As one of the participants (factory
11 manager) asserted, “*It is difficult to convince our sub-suppliers to align with our compliance requirements if we*
12 *do not have a long-term business relationship with them.*”
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21 Moreover, the focal suppliers facilitate socially sustainable practices with their sub-suppliers via
22 ongoing dialogue and negotiation, knowledge creation/dissemination, and by offering a financial
23 incentive (Soundararajan & Brammer, 2018). Sub-suppliers, in turn, expect to have a strategic
24 relationship with their focal suppliers. They hope to garner innovative ideas that motivate workers
25 to comply with social sustainability requirements; for example, when they need to encourage their
26 machine operators to wear eye guards and gloves. Also, regular briefing and training sessions
27 between suppliers and their sub-suppliers help to implement and monitor social sustainability
28 practices. Occasionally the focal supplier may offer financial assistance to a sub-supplier by
29 facilitating loan arrangements. Such inter-organisational support activities improve the quality of
30 the dyadic relationship, which leads to actual social sustainability implementations (Pedersen &
31 Andersen, 2006).
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39 Thus, it is hypothesised that:

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42 *H1: A focal supplier’s strategic partnership with a sub-supplier positively impacts sub-supplier SCC*
43 *compliance*
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46 **3.1.2 Buyer–Focal supplier governance.** Buyer–supplier governance is a generally used mechanism
47 whereby the buyers/brands impose their norms via contracts with suppliers that reflect inter-
48 organisational expectations. Expounding supply chain roles and responsibilities act as a primary
49 safeguarding mechanism against conflicts because otherwise, the various suppliers may not have a
50 clear understanding of how to govern the supply chains (Bai et al., 2016). They also indirectly help
51 to ensure transparency via monitoring of the direct and indirect partners in the supply chain
52 (Soundararajan & Brown, 2014).
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58 Major apparel industry players such as *Walmart, Nike, Patagonia, and Inditex* have developed
59 global framework agreements (GFAs) that provide overall direction to their global suppliers on
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3 how to manage their sub-suppliers (Miller, 2011). As one manager (GM4) stated, “*The reputable*
4 *buyers and brands have stipulated regulations on what [performance] to expect from sub-suppliers in social*
5 *sustainability operations. These provide direction on how to select the ‘right’ sub-suppliers and a detailed governing*
6 *framework*”. Such guidelines are intrusive when they restrict the focal supplier’s freedom to manage
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8 its sub-suppliers (Heide et al., 2007; Lee & Tang, 2017). On the other hand, they do play a vital
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10 role in reducing the risk of siloed implementations and opportunistic behaviour across supply
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12 chains (Yadlapalli et al., 2018). While GFAs primarily help the buyers take control of the supply
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14 chain, they can be considered an attempt to mitigate conflicts in sustainability adoption (Lee &
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16 Rammohan, 2017). In recognising their importance in contractual and integrated supplies
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18 management, and in guiding the selection and management of sub-suppliers, buyer-imposed
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20 norms frequently become internalised at the sub-supplier location as part of SCC implementation.
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22 Thus, it is hypothesised that:

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24 *H2: Buyer– focal supplier governance positively impacts sub-supplier SCC compliance*

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26 *3.1.3 Price pressure.* Price is a dominant decision-making factor impacting overall firm-level
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28 behaviour and trust in the supply chain (Hartmann & Caerteling, 2010). Hence, price management
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30 is a key performance indicator in a competitive market where industrial customers require quality
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32 material at a reasonable price (Fynes & Voss, 2002). When a downstream buyer focuses on
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34 achieving the maximum profit from minimum costs, it burdens the various supply chain echelons
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36 with low-price contracts (Van Tulder & Mol, 2002; Jiang, 2009). Giving in to the price pressure
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38 risks unethical practices when achievement of delivery and product quality at the lowest cost takes
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40 precedence over SCC compliance (Jiang, 2009). As one key account manager (KAM6) stated, “*Our*
41 *sub-supplier demands a price that is at least equal to the level they achieve in their market. We understand the need*
42 *for that if we are to get the best commitment to fulfilling the order, including social sustainability compliance.*
43 *Unfortunately, the profit margins restrict our ability to respond positively*”. In short, price pressure and the
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45 concomitant need for cost containment leads to trade-offs in meeting many requirements,
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47 including social compliance (Jiang, 2009). Hence, it is hypothesised that:

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49 *H3: Price pressure in the supply chain adversely impacts sub-supplier SCC compliance*

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51 *3.1.4 Institutional pressure.* A firm’s business strategy is influenced by a formal environment that
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53 encompasses vital consumers, competitors, and regulatory agencies, including industry
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55 associations and governments (DiMaggio & Powell, 1983). Suppliers seeking to adopt sustainable
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57 supply chain practices that go beyond the legal obligations need to adhere to institutional pressures
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59 and social expectations, which can increase legitimacy, resources and survival capabilities. Recent
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apparel-industry research describes the implementation of sustainability principles under
institutional pressure (Pedersen & Gwozdz, 2014), in which the principal actors tend to influence

outsourcing relationships via norms and values formulated via coercive, mimetic, and normative isomorphism. Similar to legal norms, they remain as functional triggers in driving sustainable operations (Lee & Tang, 2017). They help firms that seek to adopt and manage sustainability principles beyond fulfilling legal commitments (Hutchins and Sutherland, 2008). Besides, restriction, expectation, and influence of institutional elements would also impact the firm's behaviour. Hence, institutional pressures need to be factored into the firm's compliance management strategy (Campbell, 2007).

Coercive pressure that causes suppliers to comply with requirements is the directive pressure of stakeholders formed by the interaction of contextual factors (DiMaggio & Powell, 1983). It affects top management's attitude and behaviour toward compliance (Sharma et al., 1999) and is pervasive at both industry and firm levels (Hoejmose et al., 2014). While industry level pressure comes from local industry requirements to prompt compliance (Son & Bebasat, 2007), the firm-level pressure comes from the downstream partners through purchase contracts to comply with specific SCC requirements (Vachon & Klassen, 2006). Eventually, in practice, firms cascade those pressures to their upstream suppliers, including their subsidiaries (Surroca et al., 2013). In India, the local manufacturing associations offer awareness and training programs that indirectly coerce sub-suppliers to adopt effective compliance management strategies. The recent disasters have triggered local industry councils to focus on SCC compliance and close ongoing monitoring by the buyers (Hoejmose et al., 2014). Such coercive behaviour is taken seriously and can give rise to proactive and socially responsible strategies that align suppliers with institutional norms. In extending this observation into the subcontracting domain, it is posited that recognition of coercive pressure in the operating environment positively impacts compliance at the sub-supplier level. Thus, it is hypothesised that:

H4: Coercive institutional pressure positively impacts sub-supplier SCC compliance

Mimetic institutional pressure influences firms to imitate successful competitors as a response to uncertainty (DiMaggio & Powell, 1983). As a result, under the influence of mimetic isomorphism, they tend to standardise processes to remain competitive. One participant (GM2) reported how suppliers could come under pressure to adopt best practices, "In some cases, we seriously consider adopting competitor practices for managing sub-supplier compliance to get into our buyer's 'good books'". The mimicking activity is not only necessary to conform with local practices but may extend to global level operations too if it is acceptable to stakeholders. Often in such cases of mimicry, peer practices are reported in areas like wages, leave procedures, employee benefits, and security norms. Recent literature emphasises the positive influence of mimetic pressure on the firm's ability to

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3 implement sustainable practice (Dubey et al., 2015). By extending this observation into the sub-
4 supplier domain, it is posited that a supplier attempting to replicate competitor best practice will
5 also positively impact compliance at the sub-supplier facility. Thus, it is hypothesised that:
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9 *H5: Mimetic institutional pressure positively impacts sub-supplier SCC compliance*

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11 Normative pressure derives from cultural norms and a shared understanding of acceptable
12 practices and legitimised actions in a domain (Welford, 2005). Industry norms reflected in
13 customer and market requirements exert normative pressure on focal suppliers to adopt
14 sustainability practices ‘across all echelons’. When a focal supplier lacks clarity around issues related
15 to SCC compliance, it may adopt industry norms that eventually infuse value to impact business
16 strategy beyond mere technical requirement (DiMaggio & Powell, 1983). These unique normative
17 regulations may vary according to the regional settings and cannot be generalised in other
18 economies (Welford, 2005; Cai et al., 2010). Also, increased regulations and pressure from global
19 brands is forcing the suppliers to be stringent about SCC requirements (Chi, 2011). Eventually, the
20 supplier gains legitimacy, so needs to ensure ongoing SCC compliance with its sub-suppliers (Liang
21 et al., 2007). Thus, it is hypothesised that:
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31 *H6: Normative institutional pressure positively impacts sub-supplier SCC compliance*

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33 *3.1.5 Transparency.* Lack of transparency, which adversely impacts social and environmental
34 performance (Lee & Rammohan, 2017), is contended to be a principal cause of the *Rana Plaza*
35 disaster (Lee et al., 2017). Here, *transparency* is referring to mutual information sharing that creates
36 value in the supply chain (Lamming et al., 2001). A focal supplier seeking to assure SCC standards
37 will demand specific information from its sub-suppliers in order to be able to extend all possible
38 assistance to them (Lee et al., 2017). The important information to be shared between the focal
39 supplier and its sub-supplier includes details of health and safety conditions, labour practices, and
40 working hours (Parise & Casher, 2003). In practice, the complexity of the apparel industry means
41 that suppliers face a variety of significant challenges when managing information across different
42 supplier echelons (Perry & Towers, 2009). For example, the limits of ethical transparency tend to
43 be dictated by the marketplace and by society, and both of these influences corporate action.
44 Hence, a sub-supplier may be reluctant to share information it deems sensitive due to a business
45 priority or societal constraint. Sub-suppliers also do not usually share the same level of
46 commitment that exists between the focal supplier and its primary buyer/customer.
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57 A senior professional (SP2) who also recognises the value of transparency in a strategic
58 relationship stated: “Without an open exchange of information related to sub-supplier operations, it is difficult
59 for us to engage and help them with their compliance activities even though they have been an approved factory for
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3 *some time*". More objectively, the positive relationship of strategic supplier partnership with the
4 code of conduct compliance at the sub-supplier location is most robust under conditions of
5 heightened *transparency*. Hence, it is hypothesised that:

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9 *H7: Transparency moderates the relationship between the focal supplier's strategic supply partnership with*
10 *its sub-supplier and sub-supplier SCC compliance*

11 12 13 **4 Survey administration**

14 15 16 *4.1 Instrument development and data collection*

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18 For the second phase of the research, a questionnaire survey incorporated reflective indicators for
19 the measurement model. The measures were taken directly from well-recognised studies or were
20 adapted to fit the study context both to avoid using untested variables and to reflect the
21 perceptions of focal suppliers on sub-supplier governance.

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25 Multi-item measures increased the reliability and validity and reduced measurement error by
26 ensuring variability among the respondents (Churchill, 1979). Most items utilised a six-point
27 Likert-type scale, with anchors of 1 = strongly disagree and 5 = strongly agree; 0 = Do not
28 know/Not applicable. The *Supplier-Sub-supplier strategic partnership* construct was adapted from Li
29 et al. (2005) and Qrunfleh and Tarafdar (2013) and used six items to assess the supplier's strategic
30 supply partnership with its sub-suppliers. The *Buyer-Supplier governance* construct was adopted from
31 Jiang (2009) and used six items. Four items, adapted from Jiang (2009), were used to measure
32 supply chain *Price pressure*. Here, price war intensity uses the scale described above, whereas pricing
33 trend items were measured using a six-point Likert-type scale, with anchors of 1 = far below and
34 5 = far above; 0 = Do not know/Not applicable. For the *Institutional pressure* construct, nine items
35 were adapted from prior research by Liang et al. (2007) and Hoejmose et al. (2014) to measure the
36 institutional dimensions of normative, coercive and mimetic pressure in a compliance situation.
37 The moderating variable *Transparency* was measured using five items from Eggert and Helm (2003),
38 and the construct primarily measures supplier knowledge of sub-supplier operations. Finally, for
39 the dependent construct *Sub-supplier SCC compliance*, five items were adapted from Goebel et al.
40 (2012).

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53 The model was controlled for extraneous effects. The first of these is the number of years of
54 working with the sub-supplier (*Relationship age*). Firms with a longstanding relationship were judged
55 more likely to might have more experience with, and hence more interest in enforcing, contract
56 norms (Jiang, 2009). Another effect is the proportion of the order subcontracted to the main sub-

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3 suppliers (*Order size*) as the more substantial order sizes might create significant power imbalances
4 during contract negotiations and encourage heightened levels of SCC enforcement.
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7 Content validation of the measures during instrument development occurred in two ways.
8 Initially, four academicians and five practitioners reviewed the items, which was followed by a pre-
9 test with 25 potential participants and the items again amended. The data collected was used to
10 check the content validity of the final questionnaire, and changes were made based on suggestions
11 received to ensure the items were understandable and relevant to the context.
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16 The survey was administered to a range of prominent apparel production clusters located in
17 Bangalore, Chennai, Tirupur, and New Delhi. Organisation details accessed via the Apparel Export
18 Promotion Council (AEPC), and the Clothing Manufacturers Association of India (CMAI)
19 resulted in the targeting of 210 firms. Purposive random sampling coupled with a snowball strategy
20 finalised the critical respondent pool. This pool included business owners, chief executive officers,
21 compliance managers, key account executives, merchandising managers, marketing professionals
22 and other professionals with influence over sub-supplier management.
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28 As recommended by Ibeh & Brock (2008) for developing economies, and supported by Baruch
29 & Holtom (2008), a drop-and-collect-survey (DCS) method was adopted to ensure a high response
30 rate. This method is a relatively inexpensive and reliable means of reaching key informants directly
31 and involves personal, or postal delivery and personal pickup after completion (Brown, 1987). The
32 method also provides an opportunity for researchers to gain insights through personal interaction
33 with key informants. Contacts at local industry associations also facilitated the field data collection
34 process. A split questionnaire was administered to two respondents within each focal-supplier
35 organisation as a two-part ex-ante measure to mitigate common method variance (Raghunathan &
36 Grizzle, 1995). The first part concerned the SCC compliance, transparency, and price pressure
37 constructs, and the second part the institutional pressure, supplier–sub-supplier strategic
38 partnership, and buyer-supplier governance constructs.
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47 The data collection itself turned out to be very challenging in practice, which was partly due to
48 the need for two respondents from each participating firm. Consequently, the lead researcher spent
49 three months intensively travelling around India visiting potential respondents. All the respondents
50 were briefed to recall their compliance strategy with sub-suppliers and informed that all the
51 information given would remain confidential. The main characteristics of the responding firms are
52 in Table 3.
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TABLE 3 FIRM PROFILE

Years Established	No	%	Number of Employees	No	%	Annual Turnover*	No	%
7-10	14	8.8	1-1000	105	66.04	0-10	81	50.9
11-20	72	45.3	1001-2000	22	13.84	11-20	40	25.2
21-30	57	35.8	2001-3000	11	6.92	21-30	21	13.2
>30	16	10.1	>3000	21	13.2	>30	17	10.7

*USD million

Note: percentages do not necessarily add up to 100% due to rounding

4.2. Analysis

4.2.1 Sample size.

There was a total of 159 usable responses out of the 210 completed responses collected. The response rate (75.71%) was judged adequate for an exploratory study for predicting the R^2 value of 0.50 (95% significant level) at 80% statistical power (Cohen, 1992; Hair et al., 2016). This view was confirmed by the G*Power 3 software package (Faul et al., 2007) and validated via gamma exponential and inverse square root methods, which address sampling concerns (Kock & Hadaya, 2018). An estimated minimum sample size of 142-155 responses resulted.

4.2.2 Common method variance and non-response bias.

Several steps controlled for common method variance (Podsakoff et al., 2003). As mentioned above, the ex-ante measure of dividing the questionnaire into two parts to mitigate common method variance (Ragunathan & Grizzle, 1995), required that a different person complete each part. Also, the constructs were not disclosed to the respondents, to minimise respondent bias, and the items were randomised to reduce the possibility of respondents comprehending construct correlation. Harman's single-factor test checked that a single general factor did not account for most of the measures' covariance. Also, and in line with Kock and Lynn's (2012) recommendations, common method variance was tested via a full collinearity variance inflation factor (VIF). All of the values were less than the threshold value of 3.3 for every construct (Cenfetelli & Bassellier, 2009), indicating that common method variance and collinearity are not a significant concern in this research. The high response rate indicates that non-response bias is also unlikely to be an issue.

4.2.3. *Discriminant validity.* Discriminant validity assessed item loadings in specific constructs to avoid the model misspecification problem. Table 4 shows that the (square root) average variance extracted (AVE) values (0.766-0.897) for the constructs are all higher than their cross-correlation values, and all exceed the recommended minimum of 0.5 (Fornell & Larcker, 1981).

TABLE 04 DISCRIMINANT VALIDITY

Constructs	NP	MP	CP	Pr	SSP	BSG	CoC	T	Years	Size
NP	0.816									
MP	0.029	0.887								
CP	-0.006	0.091	0.897							
Pr	0.029	-0.135	-0.031	0.887						
SSP	0.058	-0.084	0.566	-0.203	0.799					
BSG	-0.064	-0.132	0.038	-0.334	0.29	0.766				
CoC	0.022	-0.073	0.191	-0.439	0.468	0.441	0.82			
T	0.027	0.025	-0.126	0.051	-0.198	-0.139	-0.139	0.769		
<i>Control</i>										
Years	-0.022	-0.121	0.3	-0.3	0.582	0.364	0.472	-0.194	1	
Size	-0.034	0.006	0.27	-0.153	0.275	0.196	0.348	-0.049	0.291	1

Composite reliability verified discriminant validity (Hair et al., 2006) and all the constructs exceed the recommended minimum of 0.65 (Table 5). Also, no construct inter-correlation value has a value of 1.0, and each item loaded on its specific latent variable, thereby confirming its dimension (Anderson & Gerbing, 1988).

TABLE 05 CONFIRMATORY FACTOR ANALYSIS

Item code	Description	factor loading	mean	SD &	alpha	CR**
	Supplier–Sub-supplier partnership (SSP) (Li et al. 2005, Qrunfleh and Tarafdar 2013)		2.68	1.37	0.88	0.91
SSP1	We consider quality to be our number one criterion when selecting an outsourcing partner	0.85				
SSP2	We regularly solve any business problems (including compliance) jointly with our suppliers	0.81				
SSP3	We help our outsourcing partners to improve their compliance environment and product quality	0.85				

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4	SSP4	Our long-term continuous improvement programs for	0.84						
5		social compliance include all of our key subcontracting							
6		suppliers							
7									
8									
9	SSP5	We always include our subcontracting suppliers in our	0.73						
10		planning and goal-setting activities for social							
11		compliance							
12									
13									
14	SSP6	We always actively consider our subcontracting	0.71						
15		partners in any new business developments							
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Transparency (T) (Eggert and Helm 2003)

1.95 1.15 0.76 0.85

T1*	We exchange all relevant information with our subcontractors on a regular basis	< 0.5
T2	We are very aware of every subcontractor's financial situation	0.61
T3	We are very aware of every supplier's organisational structure	0.84
T4	We are very aware of every subcontractor's supply chain capabilities	0.74
T5	Our main sub-contractor's business processes are very transparent to us	0.86

Institutional Pressure (Liang et al., 2007; Hojmosse et al., 2014)**Coercive Pressure (CP)**

2.38 1.01 0.88 0.93

CP1	Conditions in our industry force us to monitor social compliance norms across the supply chain, including with subcontracting partners	0.87
CP2	Local industry associations set helpful guidelines for implementing social compliance norms across the supply chain, including with subcontracting partners	0.92
CP3	International customers are more sensitive to social compliance procedures at the subcontracting level	0.90

Mimetic Pressure (MP)

2.68 1.01 0.86 0.91

MP1	Competitors that have adopted social compliance across all supply chain layers have benefited greatly	0.90
MP2	Competitors that have adopted social compliance across all supply chain layers are favourably viewed by firms in the same trade	0.93
MP3	Competitors that have adopted social compliance across all supply chain layers are favourably perceived by customers	0.82

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4	Normative Pressure (NP)		4.32	0.67	0.75 0.86
5					
6	NP1	For retaining customers, our firm's success significantly	0.83		
7		depends on the implementation of the code of conduct			
8					
9	NP2	Government norms are pressuring us to monitor social	0.86		
10		compliance across all echelons of our supply chains			
11					
12					
13	NP3	Our main customers expect us to closely monitor	0.75		
14		compliance procedures at the subcontracting level			
15					
16					
17	Sub-supplier SCC compliance (SCC) (Goebel et al. 2012)		2.44	1.22	0.88 0.91
18					
19	SCC1	The code of conduct is widely distributed to every	0.83		
20		stakeholder throughout our supply chains			
21					
22					
23	SCC2	Every stakeholder throughout our supply chains is	0.66		
24		required to acknowledge that they have read the code			
25		of conduct requirements			
26					
27					
28	SCC3	Every stakeholder throughout our supply chains is	0.87		
29		required to acknowledge that they have received clear			
30		instructions regarding code of conduct requirements			
31					
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33					
34	SCC4	The managers and owners of subcontracting partner	0.84		
35		firms are regularly required to assert that their actions			
36		comply with the code of conduct			
37					
38					
39	SCC5	The code of conduct is formalised throughout the	0.88		
40		organisations			
41					
42					

43 *BSG3, BSG4, and T1 were dropped due to poor loading & standard deviation

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45 ** composite reliability # subcontractor represents washing, printing, embroidery and dyeing suppliers

4.2.4. Convergent validity and reliability.

Table 5 also shows the final scale items and their descriptive and reliability measures. Each construct's Cronbach's (alpha) value (0.85-0.94) exceeds 0.7, indicating the internal reliability of the scale item sets (Nunnally, 1978). Confirmatory factor analysis shows the convergence of eight of the constructs. Corrected item-total correlation analysis purified each construct by dropping items loading less than 0.5. As a result, two items were dropped from the *Buyer-supplier governance* construct and one item from the *Transparency* construct. Otherwise, every loading score exceeds the threshold value of 0.5 and is significant at $p < 0.01$; hence convergent validity is demonstrated (Nyaga et al., 2010).

The model shows the Goodness of Fit (GoF) value of 0.603 to be much higher than the cut-off value (0.36) and in explaining the geometric mean of average commonality, is acceptable according to Wetzels et al. (2009). Regarding the model quality indices, values of Simpson's paradox ratio (0.889); the R-squared contribution ratio (0.991); the statistical suppression ratio (1); and, the nonlinear bivariate causality direction ratio (1.0) all confirm correct association directions of the constructs in the hypotheses. Consequently, we judge the model to be rigorous regarding causality.

4.2.5 Hypothesis testing

The hierarchical regression method used to test all the hypotheses is considered conservative and robust compared with other covariance-based techniques. Four hierarchical models are in Table 6. The first model, which includes only the control variables to assess their overall effect on the code of conduct compliance, explains 26.4% of the variation on the dependent variable. The model is also significant ($F = 27.962$, $p < 0.05$); there is a significant independent effect of the selected control variables on sub-supplier SCC compliance.

The second model adds in all of the independent study variables to the control variables, to assess the role of the independent study variables. This model explains 43.1% of the overall variation on the dependent variable ($F = 14.196$, $p < 0.05$). An important observation from this model is that none of the institutional pressure components (coercive, mimetic, and normative) indicate significant relationships.

Model 3 (Table 6) adds in the hypothesised moderating effect of transparency. The results hold all the other indicators constant under the control variables inclusion. This model indicates no significant moderation by the interaction effect (SSP*T). Finally, Model 4 offers sufficient β and R-squared estimate values for meaningful interpretations.

TABLE 06 HIERARCHICAL MODEL RESULTS

Model No.	1	2	3	4
<i>Control Variable</i>				
Order size	0.237 [‡]	0.154 [‡]		0.154 [‡]
Years	0.362 [*]	***		***
<i>Main effects</i>				
Strategic supplier partnership (SSP)		0.253 [#]	0.352 [*]	0.239 [‡]
Buyer-supplier governance (BSG)		0.209 [#]	0.246 [*]	0.211 [#]
Price pressure (PP)		-0.258 [*]	-0.291 [*]	-0.257 [*]
<i>Institutional pressures</i>				
Mimetic pressure(MP)		***	***	***
Normative pressure(NP)		***	***	***
Coercive pressure(CP)		***	***	***
<i>Interaction effect</i>				
SSP*T (transparency)			***	***
R ²	0.264 [*]	0.431 [*]	0.398 [*]	0.431 [*]
Adj R ²	0.254	0.400	0.370	0.370
ΔF	27.962	14.196	14.279	12.457
VIF	1.254	≤ 2.2	≤ 2.23	≤ 2.8
Durbin-Watson	1.847	1.899	1.896	1.896

* $p < 0.001$; [#] $p < 0.01$; [‡] $p < 0.05$; *** no significance

Figure 3 summarises the results of hypothesis testing. The standardised coefficient is significant between the focal supplier–sub-supplier strategic partnership and the sub-supplier SCC compliance (0.239, $p < 0.01$ level). This finding indicates that focal supplier organisations having a robust sub-supplier partnership are likely to achieve social sustainability compliance at the sub-supplier location. Hypothesis H1 is supported.

The coefficient between buyer–focal supplier governance and sub-supplier SCC compliance is also significant (0.211, $p < 0.01$ level). This finding supports the proposition that a competent buyer–supplier governance has a positive impact on SCC compliance at the sub-supplier location. Hypothesis H2 is supported.

The coefficient between price pressure and sub-supplier SCC compliance is significant and shows the expected inverse relationship (-0.257, $p < 0.001$). This finding supports the proposition that price pressure in the supply chain has an inverse impact on SCC implementation at the sub-supplier location. Hypothesis H3 is supported.

The institutional pressures - coercive pressure, mimetic pressure, and normative pressure - do not appear to have a significant impact on SCC compliance at the sub-supplier location. Hence, there is no support for hypothesis H4, H5, and H6.

Finally, no significant effect exists for the moderating effect of transparency on the relationship between the focal supplier-sub-supplier strategic partnership and SCC compliance at the sub-supplier location. Hence, Hypothesis H7 is also not supported. Also, the number of certifications held, and the company's financial turnover have no significant effect on third-party certification implementation.

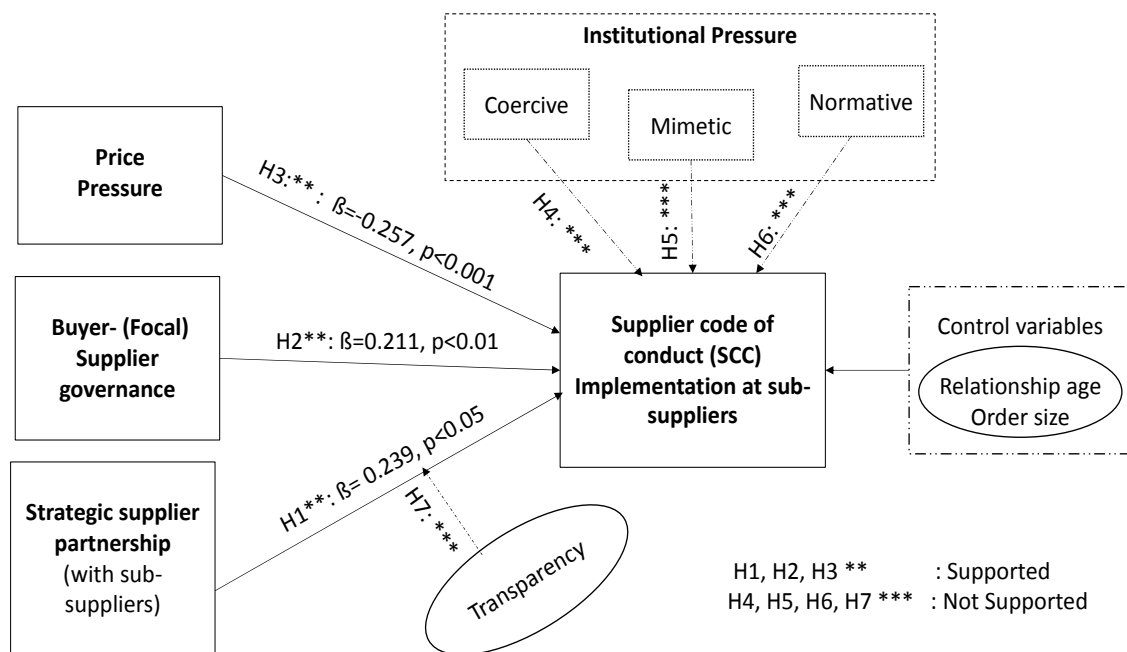


FIGURE 3 MODEL WITH HYPOTHESIS TESTING RESULTS

5. Discussion

This research demonstrates how a focal supplier that maintains a strategic supply partnership with its sub-supplier will positively impact the SCC compliance of the sub-supplier. Keeping sub-suppliers in the dark is a primary driver of SCC noncompliance behaviour (Hoejmose et al., 2014). Participants reported that a close supply partnership arrangement assists both parties by helping the sub-supplier understand the supplier's expectations (and vice versa) and by building trust and a stronger relationship.

A focal supplier may choose to invest effort into sub-supplier operations, contingent on such considerations as order size and ability to fulfil the order. Such action reduces the financial burden

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3 and stimulates the sub-supplier to fulfil SCC obligations in both the technical and compliance
4 areas. This finding accords with *Resource Dependence Theory* (RDT) describing how organisational
5 behaviour is affected by external resources (Pfeffer & Salancik, 1978). The participants
6 recommended that focal suppliers should develop a strategic partnership with their sub-suppliers
7 and involve them at every phase of business operation, from planning to final order execution.
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12 The demonstrated positive relationship between the buyer–focal supplier governance and sub-
13 supplier SCC compliance suggest that buyers should establish clear directives for their focal
14 suppliers to manage sub-supplier compliance actively. Such buyer directives to Tier-1 suppliers act
15 as an internal trigger (observed as part of internal supply chain systems) for the entire compliance
16 process. Thus, focal suppliers act as sustainability agents and work on guidelines provided by their
17 buyers (Foerstl et al., 2014). Advising these focal suppliers about business changes and requiring
18 them to monitor sub-supplier compliance processes accords with *agency theory*, which addresses
19 problems arising due to differences between the goals and desires that arise between the principal
20 and agent.
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29 In the present context, SCCs provide a mechanism for the buyer (principal) to help it direct its
30 supplier (agent) to manage compliance across multiple supply chain layers (Eisenhardt, 1989;
31 Logan, 2000; Wilhelm et al., 2016), achieved via detailed instructions from buyers through buyer-
32 supplier governance (Awaysheh & Klassen, 2010, Asif et al., 2019). The participants described how
33 the directives of a few buyers enabled focal suppliers to exercise control over their sub-suppliers;
34 acting as a safeguarding mechanism by clarifying the respective supply chain roles and
35 responsibilities (Bai et al., 2016; Lee & Rammohan, 2017). For example, the Inditex Group (a
36 major apparel manufacturer) has developed a global framework agreement that provides overall
37 direction for supplier compliance, including outsourced activities (Miller, 2011). However, the
38 participants also acknowledged that many brands do not have specific guidelines for sub-supplier
39 compliance, thus failing to deter sub-suppliers from noncompliance behaviours.
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48 The finding that price pressure in supply chains has a direct, adverse impact on sub-supplier
49 SCC compliance aligns with findings by Jiang (2009) concerning brands and their focal suppliers.
50 The finding also confirms a UK-based study that price pressure is one of the critical barriers to
51 SCC implementation (Walker & Jones, 2012). This effect is apparent in apparel subcontracting and
52 other industry networks in developed economies, such as involving automobiles and
53 pharmaceuticals (Anner et al., 2013; Harms et al., 2013). Mainly, this is because buyers impose
54 price-sensitive contracts on focal-suppliers, who extend the pressure onto their sub-suppliers.
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3 The participants also affirm that sub-suppliers are unlikely to be interested in addressing
4 noncompliance issues if they are not receiving a fair financial return on their products and services.
5 It seems reasonable that such price-squeezing hinders SCC compliance generally (Gugler & Shi
6 2009) since global value chains are under intense pressure to control the costs of their production
7 networks (Jayasinghe, 2016). The participants acknowledge that sub-suppliers often blame the
8 pricing structure for their noncompliance behaviour and will generally seek an upcharge to adopt
9 the specific practices required by the focal supplier/downstream buyer. Also reported as common
10 practice within the Indian apparel industry is how buyers will set a fixed profit target per order and
11 will try to drive down price margins, which the suppliers again pass through to their sub-suppliers.
12 Also observed in emerging economies, especially in the sub-supplier echelon, are the same
13 operational and market pressures (including price and consumer awareness) that dominate
14 institutional requirements in developed countries (Starcher, 2005; Jiang, 2009).

15
16 Although Bartley (2011) recommends an institutional layering approach to ensure compliance
17 within the different tiers, the present study reveals an absence of strong institutional governance
18 in an emerging economy like India. All three institutional pressures appear to have no significant
19 impact on sub-supplier SCC compliance. Participants attributed the ineffectiveness of institutional
20 factors to compromised monitoring and follow-up culture in India, which in turn is due to focal
21 suppliers having higher commercial priorities around the price, quality, and delivery. The market
22 also lacks uniform norms (especially concerning salary, overtime, and leave management practices)
23 due to differences in local operating environments (Venkatesan, 2019).

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25 In contrast, developed countries like the UK and the Netherlands have robust institutional
26 arrangements that govern the entire spectrum of the supply chain (Baden, 2009, Soundarrajan &
27 Brammer, 2018). Hence, the absence of strong institutional governance could be one of the main
28 reasons for incidents like the *Rana Plaza* building collapse and the Dhaka fire (AlJazeera Report,
29 2016). Such incidents also highlight the challenges of ensuring SCC implementation beyond the
30 focal suppliers due to problems of institutional spread (Juttner & Maklan, 2011). Overall, our
31 findings align with those of Mair & Marti (2009), who state that emerging economies lack strong
32 institutional support for compliance operations.

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34 Normative pressure, which derives from cultural norms and a shared understanding of
35 acceptable practices and legitimised actions, does not impact sub-supplier SCC compliance., a
36 situation that differs markedly from the case for focal supplier compliance governance. Possible
37 reasons include such resource constraints as cost, an intensely competitive business environment,
38 and other competing supply chain requirements. Also, while regulation, industry association
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3 activity and location-specific norms stimulate professional and cultural behaviours (Gereffi & Lee,
4 2016), these stakeholders do not offer guidance or apply the pressure at the sub-supplier level that
5 would help to ensure compliance. This lack of action is a crucial barrier to sustainable practice
6 adoption and signals weak coordination between the stakeholders.
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10 Mimetic pressure showed no significant impact on sub-supplier SCC compliance. Although
11 such pressure can influence firms to imitate successful competitors, most Indian sub-suppliers
12 have little interest in benchmarking or learning from their peers and competitors about successful
13 compliance practices. One participant (a Managing Director) confirmed that sub-suppliers are
14 often not interested and cited that costs and production complexities are significant inhibitors.
15 The fear of not getting proper recognition for best practice adoption by other buyers or even other
16 suppliers reduces the mimetic effect that could cause conflicts among stakeholders. Moreover,
17 such mainly small and medium-sized enterprises (Gereffi & Lee, 2016) tend not to be influenced
18 by local compliance practices and norms that misalign with their cognitive frameworks (Wu et al.,
19 2012). Other reasons could be organisational culture, the constant pressure to meet cost and
20 delivery production parameters and the attitude of top management. Also, production system
21 ambiguity and social complexities could cause the sub-suppliers to not benchmark against the best
22 sustainable practice.
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33 Coercive pressure similarly showed no significant impact on sub-supplier SCC compliance,
34 which implies that Indian sub-suppliers refuse to be browbeaten into a compliance environment.
35 The practitioners report that this attitude is a strong reaction to blatant behaviours and excessive
36 controls and procedures by the buyers and their representatives, which go well beyond stipulated
37 governance and routine follow-up; resulting in their refusal to follow even minor instructions.
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42 Conversely, it is acknowledged that some production clusters and local manufacturing councils
43 offer compliance awareness programs and guidelines. Although this could be perceived as indirect
44 coercion, there is some evidence that the practice positively affects sub-supplier SCC compliance;
45 a finding that accords with the arguments of Soundarrajan & Brammer (2018). Our finding that
46 the transparency of sub-supplier operations does not moderate the relationship between the focal
47 supplier's strategic partnership with the sub-supplier and SCC implementation contradicts our
48 hypothesis. It seems that stakeholders choose to be operationally transparent during the initial
49 collaboration stages of establishing the partnership, when they may employ what may be termed
50 opportunistic behaviour to impress their new partner. Such behaviour may help to gain new
51 business and take the relationship to the next level. Also, when a sub-supplier is unfamiliar with
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3 specific compliance requirements or end customer (brand) expectations, or it lacks operational
4 understanding, this may cause the focal supplier to step in and assist.
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7 Later in the relationship, any reduced level of transparency will have an insignificant impact on
8 code compliance because the information shared during the initial stages will have formed the
9 basis for SCC implementation and successful continuing compliance audits. The participants
10 agreed that reduced transparency at a later stage does not have a significant impact on SCC
11 compliance because there is already a good understanding between partners about their roles and
12 responsibilities. After the business relationship forms, reduced intensity of monitoring by buyers
13 and suppliers can be expected. However, the main reason for some of the recent compliance
14 fiascos in India and Bangladesh is due to the suppliers being kept 'in the dark' (Hoejmose et al.,
15 2014). This fact makes it vital that buyers develop ongoing engagement strategies that motivate
16 their sub-suppliers and suppliers to continue transparency between one another.
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26 **6. Implications**

27 *6.1 Theoretical Implications*

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31 This study advances knowledge of SCC governance in complex apparel manufacturing settings by
32 investigating sub-supplier SCC compliance from the focal supplier perspective; a focus that
33 appears to be absent in the literature. It investigates the drivers of sub-supplier compliance from
34 the perspective of suppliers that adopt a double agency role by complying with buyer-imposed
35 SCC while managing sub-supplier compliance on behalf of the buyer. It also adds a perspective to
36 the compliance literature by deliberating on the focal supplier's perspective of sub-supplier SCC
37 adoption. The derived conceptual model contributes to the literature of structural, organisational
38 characteristics and inter-organisational interactions that are needed to manage compliance
39 operations at sub-supplier locations.
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47 Our deliberations through multiple lenses have reviewed the interactions that impact relational
48 and contractual governances. Rather than a single theoretical underpinning, this research proposes
49 an integrated approach that extends the views of practitioners in formulating sub-supplier
50 governance strategies. The model conceptualises the importance of buyer–supplier governance,
51 supplier–sub-supplier partnerships, and supply chain price pressure (and the interactions), together
52 with institutional pressures that impact sub-supplier SCC compliance. Although the literature has
53 explored the role of institutional pressure in sustainability, the interactions with other compliance
54 drivers are absent.
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3 This study recognises the complexity of SCC implementation in multi-tier supply chains, which
4 have contributed to major disasters like the *Rana Plaza* building collapse. The theoretical
5 implication is that it is vital to analyse the rationale and effectiveness of institutional pressure that
6 directly or indirectly influence social compliance by focusing on appropriate framing. The study
7 also triggers the need to understand more fully the displacement of stakeholder responsibility at
8 the sub-supplier level.
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14 Our study builds a strong foundation for building robust theories, specifically on sub-supplier
15 governance, and it provides critical insights into the design of supply contracts with sub-suppliers.
16 The study also deliberates how partnerships that maintain a minimum level of transparency can
17 positively drive sub-supplier SSC compliance. This finding aligns with Fynes & Voss (2002) who
18 highlight a preference for inter-organisational governance rather than coercion. Finally, and as
19 described by Jiang (2009), the study underscores how supply chain pricing influences sub-supplier
20 compliance. Overall, it is a pioneering study that offers strong support for the notion that sub-
21 supplier governance differs from that of the other supplier echelons.
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29 **6.2 Managerial Implications**

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31 The paper makes several practical contributions to the sub-supplier domain. Firstly, guidelines for
32 developing and maintaining socially sustainable operations are absent from the manager's toolkit
33 (Golini et al., 2014). Hence, this study is of value to those stakeholders seeking assurance that every
34 supply chain member organisation is compliant with the brand's SCC. It is not enough for buyers
35 and brand managers to be sensitive to social sustainability issues; they need to focus their efforts
36 on the constructs shown to be valid drivers of SCC compliance.
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42 Secondly, and given that the buyer–focal supplier governance is effective, buyers should
43 explicitly stipulate in supply contracts the requirements for sub-supplier SCC compliance and the
44 responsibilities of focal suppliers in managing sub-supplier compliance. Such requirements will
45 help enforce the double agency role (Wilhelm et al., 2016) of focal suppliers, which will help to
46 ensure SCC compliance not only of the local operation but also the operation of their sub-
47 suppliers. Also, the buyers should work with their focal suppliers to develop transparent
48 procedures for managing sub-supplier SCC compliance. Proper monitoring and audit procedures
49 that hold focal suppliers and sub-suppliers accountable for SCC non-compliance must be
50 established.
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58 Thirdly, our study endorses the need for substantial cooperation between stakeholders when
59 focusing on SCC adoption and ongoing compliance. Focal suppliers involved in a strategic
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3 partnership with sub-suppliers need to provide information sufficient for achieving SCC
4 compliance from the pre-production stage. Regular order placement with sub-suppliers would
5 enhance their confidence, which would positively impact the compliance environment.
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9 We also recommend that brands design and adopt unified standards that are cognisant of local
10 practices and emphasise the need for intensified horizontal cooperation with other brands and
11 other stakeholders, such as via certifying bodies and industry associations. In this way, appropriate
12 practices for monitoring labour overtime, safety procedures, and wage payments, which may not
13 currently be complying with global SCC norms, may be established.
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18 Fourthly, the insignificance of institutional pressure calls for a stronger emphasis on the role of
19 government and industry associations, to develop the needed protocols, including for the sub-
20 supplier echelon. Such protocols may eventually result in a review of country-specific accreditation
21 schemes in emerging economies. These include India's *Driving Industry Towards Sustainable Human*
22 *Capital Advancement* (DISHA) and the *ACCORD* and *ALLIANCE* standards in Bangladesh, which
23 provide specific SCC guidelines and recognise sub-supplier governance separately. Similarly,
24 policymakers may consider incentivising the suppliers to monitor SCC implementation across all
25 of their supply chain echelons. Thus, the impact of our results may trigger a complete review of
26 existing institutional policies; particularly contract establishment, monitoring, and follow-up
27 auditing schemes.
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36 Fifthly, our findings indicate that excessive price pressure adversely impacts SCC compliance,
37 which should alert the brands and their sourcing managers to the need to offer a fair price in supply
38 contracts. We recommend that the average industry price should be offered to sub-suppliers when
39 negotiating the contract, to motivate them to take more of an interest in being SCC compliant.
40 Moreover, we recommend that buyers consider paying an upcharge to incentivise sub-suppliers to
41 adopt the required best practices. In short, rather than resorting to coercion, the buyer stakeholders
42 should aim to develop trust-based strategies that explicitly motivate the sub-suppliers to become
43 compliant and operationally transparent.
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50 Finally, multi-tier supply chain compliance management provides an opportunity for firms to
51 contribute to achieving the sustainability development goals of the United Nations, specifically
52 relating to maintaining health and well-being, gender equality, decent work, and the promoting of
53 strong institutions. The primary internal triggers are from buyers/customers/retailers and
54 consumers. They exert influence on ensuring sub-supplier social sustainability compliance through
55 *Buyer-Supplier governance* and close monitoring programs. Stakeholders external to the supply chain,
56 such as local governments and industry associations, can also contribute to enforcing sub-supplier
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3 compliance provided that developing countries have robust institutional governance. Hence, the
4 larger buyers/retailers could consider using their position of power within the market to push for
5 more robust institutional governance in developing countries, which will result in benefits from
6 having multi-tier supply chain SCC compliance.
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10 11 **7. Conclusion**

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13 Sub-supplier SCC governance is complex and challenging. The global brands and focal suppliers
14 require that their sub-supplier echelons maintain sustainable production environments. Although
15 sub-supplier arrangements are ubiquitous in apparel supply chains, studies of the sub-supplier
16 sustainability dynamics are only just beginning to emerge (Grimm et al., 2014). This pioneering
17 study used a mixed-methods research approach to investigate the driving factors behind sub-
18 supplier social sustainability compliance in a complex, multi-tier supply chain. Having such a
19 detailed understanding of the factors that motivate sub-suppliers to comply with sustainability
20 requirements is a crucial first step towards achieving SCC compliance in global value chains. The
21 findings will assist researchers and practising managers to identify synergies and to prioritise the
22 critical success factors that drive compliance behaviours at the sub-supplier level (Grimm et al.,
23 2014). Hence, this study sets the foundation for future research, and it underscores the need to
24 investigate the drivers of sub-supplier compliance operations using specific theoretical lenses.
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34 A study of this scope inevitably has limitations. Firstly, the compliance norms and sub-supplier
35 governance practices might vary across locations. Also, not investigated were the perceptions of
36 the buyers regarding the drivers of sub-supplier SCC compliance. The drop-and-collect
37 methodology might have caused some respondents to have insufficient time to answer the
38 questions. Further research is needed into the effectiveness of contractual and relational
39 governance on sub-supplier compliance management, and the difficulties encountered by sub-
40 suppliers when adopting compliance practices. It would be interesting to know how to measure
41 the level of compliance at sub-supplier locations accurately, and hence the effectiveness of
42 compliance audits and inspections. This study can also be replicated in other emerging economies
43 and industries to help validate its findings and recommendations.
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52 **Acknowledgments**

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54 The authors gratefully acknowledge the many comments and suggestions made by the editor and
55 reviewers that have resulted in a much-improved article.
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Annexure 1 Summary of literature

Theme	References	Focus points
Supply Chain Compliance	Lawson et al. (2017) Leboron et al. (2017) Foerstl et al. (2015) New (2015); Wolf (2014)	<ul style="list-style-type: none"> - Importance of supply chain compliance and its processes (both social and environmental) - How to manage stakeholders, which eventually creates value for the brand and influence its customers and wide marketplaces
Social Sustainability	Huq & Stevenson (2018) Mani & Gunasekaran (2018) Yawar & Seuring (2017) Marshall et al. (2015b) Huq et al. (2014) Mexiell & Luoma (2013)	<ul style="list-style-type: none"> - Drivers of social sustainability and organisational culture - Problems of implementation - Emerging economy perspectives - Entrepreneurial role-stakeholder interactions - Identification of stakeholder influence on achieving social sustainability.
Multi-tier focus (including sub-suppliers)	Grimm et al. (2016) Wilhelm et al. (2016) Grimm et al. (2014) Hartman et al. (2012)	<ul style="list-style-type: none"> - Importance and governance of sub-supplier compliance and dual agency role of the focal suppliers and their operational dynamics - Elucidation of critical success factors in sub-supplier sustainability management - Significance of understanding the sustainability requirements of stakeholders in different layers
Supplier focused sustainability studies	Huq & Stevenson (2018) Soundarrajan & Brammer (2018) Huq et al. (2014) Kumar & Rahman (2016) Jiang (2009) Pullman (2009)	<ul style="list-style-type: none"> - Compliance deviations in developing countries - Establish the importance of capturing the supplier perspectives - Implementation under challenging institutional contexts
Supplier code of conduct (SCC) implementation	Boiral et al. (2017) Ehrgott et al. (2014) Jiang (2009) Llach et al. (2015) Perry et al. (2015) Egles-Zanden (2014) Ciliberti et al. (2011)	<ul style="list-style-type: none"> - Dynamics and challenges of SCC implementation - Diffusion of SCC in global value chains in multiple industries including the garment, toy, clothing, electronics, and building industries

Annexure 2 Participant profile

		Designation	Location	Experience (years)	Firm Size (employees)
1	SP1	Chief Executive/Managing Director	Tirupur	16	3800
2	SP2	Vice-President (Operations)	Various	18	10000
3	SP3	Managing Director	Tirupur	22	6000
4	SP4	Head- Operations	Bangalore	24	4300
5	SP5	Managing Director/Owner	Madurai	28	700
6	GM1	General Manager	Bangalore	20	8000
7	GM2	Factory Manager	Chennai	12	1300
8	GM3	Chief Production Manager	Tirupur	25	6500
9	GM4	Assistant General Manager	Tirupur	14	5200
10	GM5	Factory Head	Delhi	18	4200
11	GM6	Production Leader (Manager)	Chennai	12	1800
12	KAM1	Merchandising Manager	Coimbatore	16	720
13	KAM2	Merchandising Manager	Tirupur	14	650
14	KAM3	Merchandising Head	Tirupur	22	1400
15	KAM4	Divisional Merchandising Manager	Chennai	19	3400
16	KAM5	Merchandising Manager	Rajapalayam	16	640
17	KAM6	Senior Merchandising Executive	Bangalore	14	1200
18	CA1	Quality Executive	Tirupur	15	570
19	CA2	Compliance Manager	Bangalore	10	920
20	CA3	Compliance Head	Bangalore	16	4200
21	CO1	Consultant 1	Delhi	11	3200
22	CO2	Consultant 2	Chennai	17	1700
23	CO3	Consultant 3	Bangalore	21	1300
24	CO4	Consultant 4	Tirupur	16	1800

Consultants (CO) are employed by the suppliers on a fixed-term basis; they are the part of the operational team to improve overall business efficiency including compliance. Their firm size indicates the size of the factory to which they are/were recently associated.

Annexure 3 Qualitative Theme Development

Open coding (first level)	Axial coding (second level)	Selective coding (third level/constructs)
1 investments in sub-supplier operations	engagement and interest on sub-suppliers	Strategic partnership with sub-suppliers
2 give positive feelings to the sub-supplier		
3 training the suppliers		
4 regular visits and interactions		
5 collaborate with the suppliers	collaboration	
6 mutual benefit relationship		
7 business continuity		
8 standard procedures in align with buyers	subcontracting governance framework	Buyer-Supplier governance
9 advising the businesses on ethical practices		
10 audits and approvals buyers' interest and involvement		
11 buyer instructions	buyer guidelines	
12 buyers' interest and involvement		
12 sub-suppliers request		
13 compliance framework		
changes in price and order		
14 flow forced shrinking margins	price behaviour	Price pressure
15 from buyers		
16 focus on profits		
17 low price contracts		
18 dominance on a pricing	price war	

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competitive prices in the
 19 market
 20 openness information sharing Transparency
 importance of two-way
 21 communication
 the desire for open
 22 communication dd
 23 documentation information value
 (importance)
 24 information needed to
 improve compliance
 25 follow the peers competitor pressure Institutional pressures
 26 follow the market practices market pressure
 27 industry associations
 help from governmental
 28 norms regulative pressure
 non-governmental / third-
 29 party regulations
 30 stakeholder pressure

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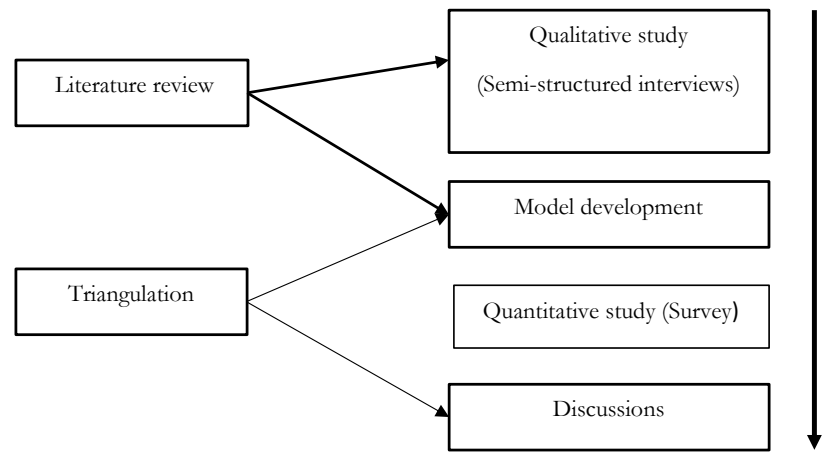


FIGURE 1 RESEARCH FRAMEWORK

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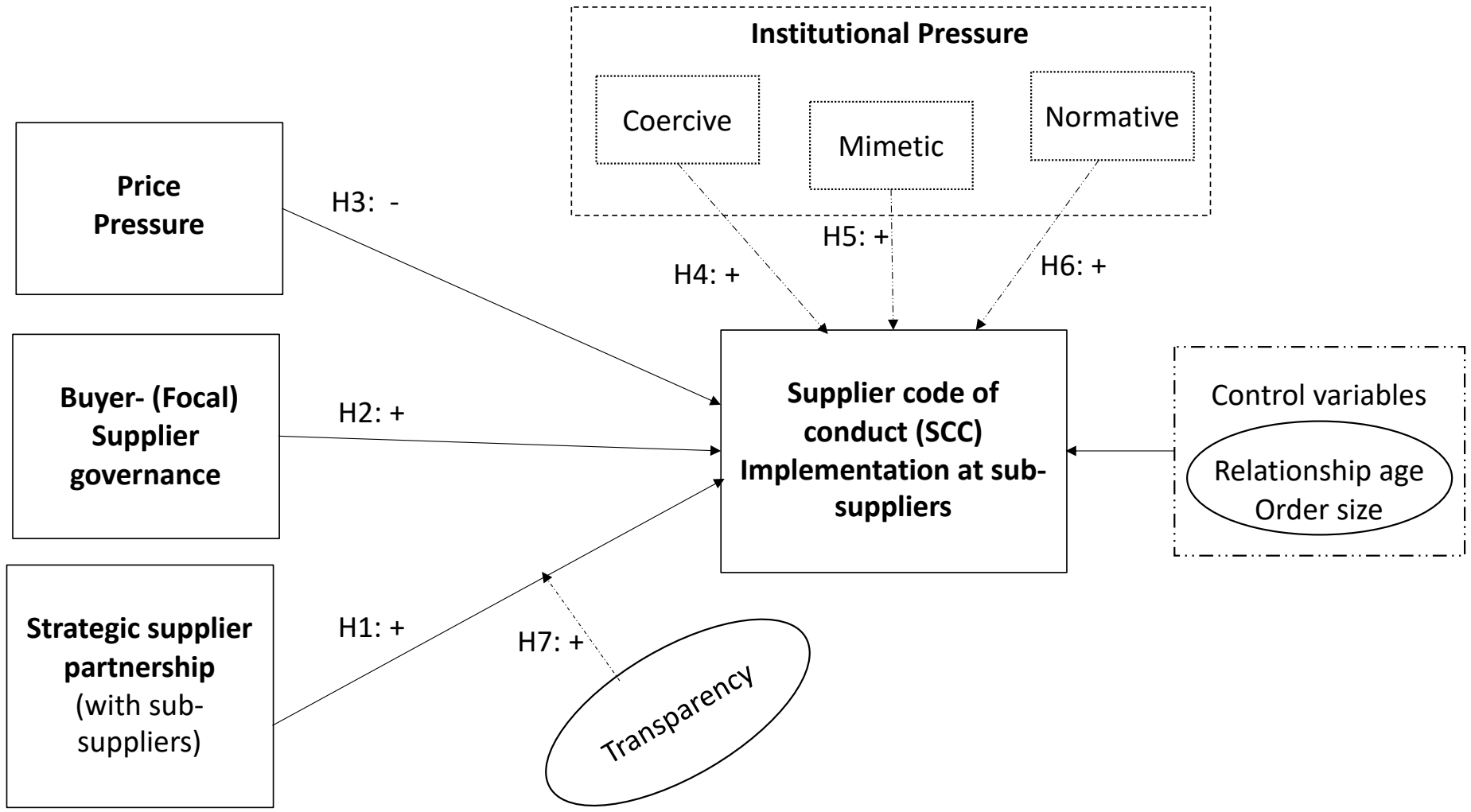


FIGURE 2. HYPOTHESISED RELATIONSHIPS

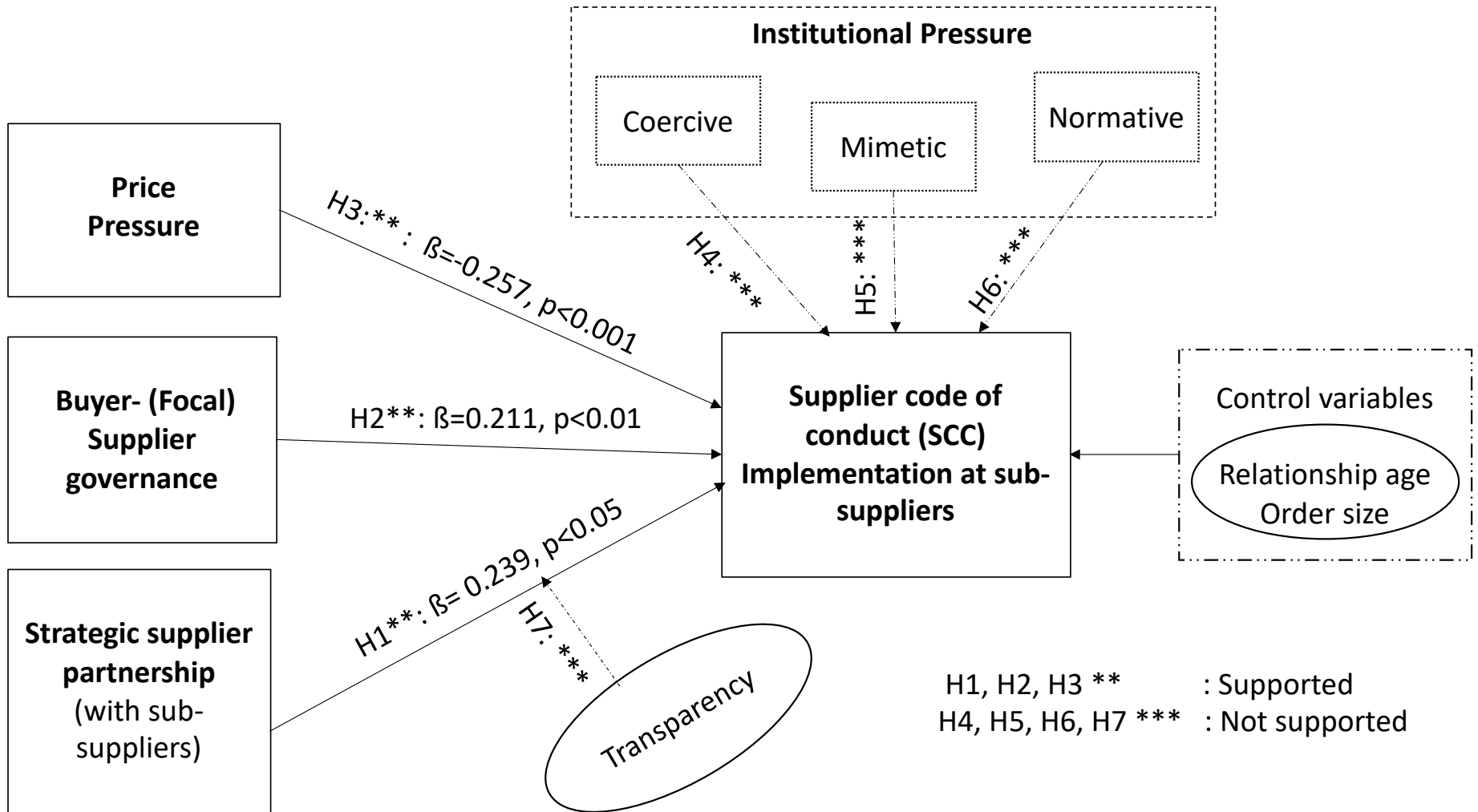


FIGURE 3 MODEL WITH HYPOTHESIS TESTING RESULTS