



Journeys, Not Destinations: Theorizing a Process View of Supply Chain Integrity

Matthew A. Douglas¹ · Diane A. Mollenkopf² · Vincent E. Castillo³ · John E. Bell⁴ · Emily C. Dickey⁵

Received: 7 January 2021 / Accepted: 26 July 2021 / Published online: 6 August 2021
© The Author(s), under exclusive licence to Springer Nature B.V. 2021

Abstract

Integrity is considered an important corporate value. Yet recent global events have highlighted the challenges firms face at living up to their stated values, especially when extended supply chain partners are involved. The concept of Supply Chain Integrity (SCI) can help firms shift focus beyond internal corporate integrity, toward supply chain integrity. Researchers and managers will benefit from an understanding of the SCI concept toward implementing SCI to better align supply chain partners with stated corporate values. This research fully develops and empirically grounds the firm-level, inter-firm-oriented SCI concept. The thematic analysis of six firms' archival and website content elaborated empirical descriptions of SCI themes and enabled the development of a process model for SCI, presenting a novel view of the underlying process by which firms can assess, develop, and maintain SCI across their supply chains. We propose the SCI model as an evolutionary process to improve a firm's supply chain sustainability, rather than a dichotomous end state where firms either "have" integrity or they don't. The SCI model could be used as a tool to help leaders create necessary change to better align values and supporting statements with culture, while influencing and affecting stakeholders across the supply chain. This is particularly important in today's world, where business leaders must consider all stakeholders and address important stakeholder-driven issues such as supply chain sustainability, resilience, and security, which are now at the forefront in the ever-changing environment.

Keywords Supply chain integrity · Supply chain sustainability · Sustainable supply chain management

✉ Matthew A. Douglas
matthew_a_douglas@baylor.edu

Diane A. Mollenkopf
diane.mollenkopf@canterbury.ac.nz

Vincent E. Castillo
castillo.230@osu.edu

John E. Bell
bell@utk.edu

Emily C. Dickey
emily.dickey@the-klu.org

- ¹ Hankamer School of Business, Baylor University, One Bear Place #98006, Waco, TX 76798, USA
- ² Te Kura Umanga | UC Business School, Te Whare Wānanga O Waitaha |, University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand
- ³ Fisher College of Business, The Ohio State University, 2100 Neil Avenue, Columbus, OH 43210, USA
- ⁴ Haslam College of Business, University of Tennessee, 453 Haslam Business Building, Knoxville, TN 37996, USA
- ⁵ Kühne Logistics University, Großer Grasbrook 17, 20457 Hamburg, Germany

Introduction

Recent COVID-19 outbreaks in garment factories in England reveal the ongoing difficulties firms experience in connecting their stated values—such as protection of employee safety, health, and welfare—and their cultures (BBC News, 2020). The fashion firm, boohoo, was unaware that COVID-19 prevention and protection measures were not in place at a supplier's factory, in violation of boohoo's stated values (boohoo group plc, 2020). Firm values-culture disconnects, often referred to as breaches of integrity (Maurer, 2009), across supply chains are not uncommon (Sull et al., 2020), and have resulted in tragic incidents, such as the catastrophic Rana Plaza collapse in Bangladesh that resulted in 1133 fatalities and 2438 injuries (CPD Bangladesh, 2013). Thus, the importance of firms pursuing integrity internally, and externally across their complex supply chains, cannot be understated.

Recent research about corporate values and culture found 65% of U.S. companies listed "integrity" among their official corporate values (Sull et al., 2020). Corporate

integrity has been defined as “aligning individual and corporate principles, and by aligning suppliers to one’s own integrity requirements or by creating common ground and purposeful partnerships with critical stakeholders (Maak, 2008; pp. 361–362). This definition, as exemplified by the boohoo example, establishes that external stakeholders can affect a firm’s integrity. In fact, Brown (2006) suggests that external disconnects between supply chain partners may be more common than internal firm values-culture disconnects. Therefore, firms may need to shift focus beyond internal corporate integrity, toward supply chain integrity (SCI; Castillo et al., 2018).

The SCI concept is important in addressing contemporary supply chain issues relating to societal and environmental performance (Becker, 2009; Brown, 2006). More recently, SCI has been proposed as an antecedent of sustainable supply chain management (Castillo et al., 2018). When firms publicly state values or objectives associated with social and environmental sustainability (e.g., Patagonia, 2020), they must continually work to align their culture, or behavior, to represent stated values throughout their supply chains (Castillo et al., 2018). Thus, over time, any potential or actual values-culture disconnects, or lapses of integrity (Audi & Murphy, 2006), should be identified and addressed through a continuous sequence of decisions and actions (Wu & Pagell, 2011).

For example, when current supply chain sustainability efforts fall short of alignment with stated values and objectives, firms and their supply chains fail to achieve true sustainability (Montabon et al., 2016). Indeed, at times, firms do not experience serious financial consequences resulting from values-culture disconnects and resulting incidents, particularly as they are related to sustainability values and objectives (Jacobs & Singhal, 2017; Kim et al., 2019). Moreover, the focus on balancing profit and loss with sustainability initiatives may induce a tradeoff mentality between profit and sustainability that opens the door to firms’ values-culture disconnects (Elkington, 2018). Thus, researchers and managers are called to shift their institutional logic and treat a supply chain’s social and environmental performance as equally or more valid than economic performance (Kleindorfer et al., 2005; Montabon et al., 2016; Pagell & Shevchenko, 2014).

The SCI concept can help researchers and managers make this important transition. For example, the COVID-19 pandemic forced grocery stores to quickly shift operational processes to protect employee and customer safety with little question of “does it pay?” (Mollenkopf et al., 2020). Scholars have argued firms can create economic value by creating shared value, thus providing a win-win situation for business and society (Porter & Kramer, 2011). However, the shared values perspective does not necessarily explain important contingencies, such as when tradeoffs between

business and society exist. In these cases, scholars argue that decisions must be made by invoking ethical frameworks (de los Reyes et al., 2017). Thus, when determining how to become sustainable, for example, firms might be more effective at convincing managers to move forward by also emphasizing the ethics of sustainable practices (Mayer et al., 2019), thus helping them pursue better values-culture alignment.

Therefore, a concept that considers the economic *and* ethical perspectives is warranted (Maak, 2008). SCI provides a sound concept because firms with a culture of integrity are driven by values, ideals, and broad stakeholder desires (Paine, 1994). This approach can help firms create better alignment with their suppliers, thus establishing common ground and purposeful partnerships with critical stakeholders (Maak, 2008). The pursuit of SCI may also serve to reframe tradeoffs such that values-culture disconnects across the supply chain can be identified and minimized (Trevino et al., 1999), allowing firms and their partners to pursue ethical strategies (Pagell & Wu, 2009).

SCI has been conceptually defined and developed to some extent. Castillo et al. (2018) posited that SCI consists of structural and moral dimensions, providing some preliminary evidence that firms who “have” SCI are more likely to be sustainable. However, the authors call for additional refinement and empirical grounding of the SCI concept by developing dimensions that provide more granular and actionable information. Researchers and managers would be well served with a deeper understanding of how to develop and maintain SCI in supply chains, and thus pursue values-culture alignment and achievement of stated objectives (Castillo et al., 2018). Therefore, the purpose of this research is to fully develop and empirically ground the firm-level, inter-firm-oriented SCI concept. Specifically, we: (1) elaborate Castillo et al.’s (2018) SCI concept by integrating SCI and Maak’s (2008) 7Cs of corporate integrity; and (2) theorize a process by which firms can assess, develop, and maintain SCI.

Recent calls for research in the operations and supply chain management disciplines (O/SCM) highlight important considerations for our business ethics research effort. First, a better understanding of organizational and supply chain cultural factors can help shape and direct O/SCM practice (Pagell & Shevchenko, 2014). Second, cultures change over time, thus the O/SCM field needs to move from “telling managers what they already know—that organizational culture matters—to providing real insights into how cultures can be built, changed, adapted, or protected in an operational setting (Marshall et al., 2016; p. 1508).”

Thus, in this research, we employ thematic analysis (Boyatzis, 1998; Braun & Clarke, 2006) to extend our empirical understanding of the “what” of SCI, as well as “how” firms and SC partners can develop and maintain SCI. A qualitative approach such as thematic analysis is appropriate because

we explore complex interplays of stakeholders, systems, and processes, where little knowledge of these interplays exists (Boyatzis, 1998; McCutcheon & Meredith, 1993). As such, this paper makes multiple important contributions to theory and practice. First, we answer the call to further develop the SCI concept (Castillo et al., 2018) by integrating SCI with Maak's (2008) corporate integrity framework. In doing so, we develop sub-dimensionality of Castillo's et al. (2018) structural and moral SCI dimensions in terms of the 7Cs (Maak, 2008), contributing a deeper understanding of the SCI concept. Second, we theorize the process by which firms may assess, develop, and maintain SCI. Specifically, we develop an empirically grounded, process view of SCI, moving SCI from a static concept of "having" SCI or not to an evolutionary process of development and change (Van de Ven & Poole, 1995). That is, firms develop and maintain SCI over relatively long periods of stability punctuated by short bursts of fundamental change (Romanelli & Tushman, 1994). This approach contributes to the broader corporate integrity body of knowledge by providing a novel theoretical lens through which to view real-world ethical issues in supply chains. Third, the evolutionary process view also contributes to organizational learning and process theories of development and change literature. SCI is positioned as an inter-organizational learning process focused on how an integrity approach can be developed, changed, adapted, or protected across supply chain partners over time. As an inter-organizational learning process, SCI could be characterized and operationalized as iterative and evolutionary, in which the dimensions of SCI are constantly adapted to diverse and changing economic, social, and environmental contexts, thus pursuing integrity and improving performance for firms and their supply chain partners (Van de Ven & Poole, 1995).

In today's environment, a supply chain that continually lacks integrity cannot be sustainable, thus the resulting model can help managers working to align their firms' stated values with their cultures, as well as the cultures of their supply chain stakeholders, to include suppliers, third-party providers, customers, etc. Additionally, the process model provides aspirational benchmark actions, practices, and mechanisms to help managers assess, develop, and maintain integrity in their firms, and across their supply chains. While an end state of complete SCI may not be attainable, the process elucidated in the current research proposes that it is perhaps the journey toward SCI that matters most, not the destination.

Supply Chain Integrity: Domain and Definitions

Castillo et al. (2018) extended the concept of corporate integrity to the supply chain (SC) context, providing the initial definitions and dimensions for supply chain integrity (SCI) as a firm-level, inter-firm-oriented concept. Supply chain integrity (SCI) is defined as "the dedication to maintaining integrity in supply chain activities and the recognition of the systemic and strategic implications of maintaining integrity in supply chain processes and flows" (Castillo et al., 2018, p. 40). As defined by Castillo and colleagues, the two distinct dimensions of SCI—a structural dimension and a moral dimension—play vital, but inter-related roles in shaping firm behaviors. The structural dimension provides the scaffolding for implementation of responsible practices, whereas the moral dimension relates to implementation of responsible practices as a signal of supply chain members' values and ethics. SCI thus provides a foundation for firm and supply chain responsible and ethical behavior, and influences outcomes such as improved sustainability (Castillo et al., 2018).

Maak (2008) recommends firms align supply chain partners with their own integrity requirements, while creating common ground and purposeful partnerships. Integrity requirements in Maak's framework are defined as the 7Cs of corporate integrity: commitment, conduct, content, context, consistency, coherence, and continuity. However, Maak does not explain the 7Cs in the supply chain context, making it difficult to characterize and understand the 7Cs beyond the focal firm. Therefore, to address this gap, provide a more comprehensive understanding of integrity for the supply chain context, and extend theory, we integrate Maak's 7Cs with the SCI concept's structural and moral dimensions (Castillo et al., 2018).

The 7Cs framework (Maak, 2008) and existing integrity literature provide a solid foundation for developing and clarifying the supply chain concept of integrity. SCI-structural integrity indicates unity of character through a combination of sustainable practices, which includes the propensity to seek and integrate with supply chain partners with comparably high integrity, and who demonstrate a consistency in stated and achieved sustainability goals (Castillo et al., 2018; pg. 43). These actions must take place over time. Thus, linking SCI to Maak's (2008) 7Cs, the SCI structural dimension includes context, conduct, consistency, and continuity as sub-dimensions.

Additionally, SCI's moral dimension indicates a firm's compassion and receptivity to communities, self-awareness and impartial judgment of the consequences of its operations, and commitment to sustainability (Castillo et al., 2018; p. 43). Thus, the SCI moral dimension includes

Table 1 Themes, definitions, and the supporting literature

Theme	Definition	Supporting literature
Moral Commitment	The firm serves a worthwhile purpose supported by its SC partners	Brown (2006)
Moral Content	The firm and its SC partners are dedicated to guiding principles that are aligned with societal norms and encourage responsible activities that consider all stakeholders, to include employees, customers, and communities, and the environment	Audi and Murphy (2006), Becker (2009), Koehn (2005), McFall (1987), Paine (1994)
Moral Coherence	The firm and its SC partners adhere to guiding principles for the right reasons, and do so even in the face of adversity and/or negative consequences	Calhoun (1995), McFall (1987)
Structural Context	The firm and its SC partners prescribe to a common set of principles to achieve relational wholeness, or unity of character	Audi and Murphy (2006), Brown (2005), Calhoun (1995) and Maurer (2009)
Structural Conduct	The firm and its SC partners support proactive practices to prevent integrity gaps from arising and principles-based practices are in place to ensure, or restore, ethically sound behavior	Solomon (1992)
Structural Consistency	The firm and its SC partners match words and deeds, and achieve expected outcomes that matter	Palanski and Yammarino (2007)
Structural/Moral Continuity	The firm and its SC partners have behaved this way in the past, and currently behave in this manner; can be present across all sub-dimensions	Maak (2008)

Table 2 Overview of thematic analysis process

Step	Actions
1. Familiarizing ourselves with the data	Organized data; read and re-read the data, gaining a sense of the overall meaning
2. Generating initial themes	Developed codes for themes based on Castillo et al.'s (2018) structural and moral dimensions of SCI and Maak's (2008) 7C's of corporate integrity. Developed coding rules for themes, grounding themes in the supply chain context
3. Searching for themes	Conducted deductive coding process across all firms; mapped data to SCI-7C themes
4. Defining and refining themes	Conducted inductive coding process across firms to identify lower-level themes and elaborate the SCI-7C themes. Developed thematic map for the SCI-7C themes
5. Describing and interpreting themes	Developed vivid descriptions of themes. Theorized SCI process model
6. Telling the story	Developed concise, coherent, logical, non-repetitive account of themes and process model

Process steps adapted for this research from Braun and Clarke (2006, p. 87)

commitment, content, coherence, and continuity as its sub-dimensions. Drawing from the SCI concept, 7Cs framework, and integrity literature, we developed guiding definitions for each of the SCI sub-dimensions (7Cs), which are presented in Table 1.

Methodology

Research Design

We employed a qualitative research design utilizing the thematic analysis method in a six-step process adapted from Braun and Clarke (2006). Thematic analysis is a method for identifying, analyzing, and reporting patterns of meaning within a corpus of data. It is used to organize, describe, and interpret a range of data sources in rich detail (Boyatzis, 1998). An overview of our thematic analysis process steps and actions is presented in Table 2.

Additionally, to enhance rigor and relevance of the research, we adapted an interpretive presentation structure (Kaufmann & Denk, 2011). Explanation of actions and outcomes provide evidence of the credibility, dependability, confirmability, and transferability of the qualitative research process and its findings (Lincoln & Guba, 1986), four outcomes which conceptually overlap with internal validity, reliability, objectivity, and external validity, respectively (Miles et al., 2020). Table 3 provides a summarized overview of several actions and outcomes to further assure readers of the quality and trustworthiness of the research process and its findings.

Our approach is appropriate for multiple reasons. First, we explore SCI through the lens of the existing conceptual domain and theoretical framework in an attempt to capture the complexities of the content of SCI and the social process required to develop and maintain SCI (Barratt et al., 2011; Eisenhardt & Graebner, 2007; Goldsby et al., 2006; Meredith et al., 1989; Yin, 2014). Second, we examine and extend

Table 3 Interpretive presentation structure

Action/outcome	Credibility	Dependability	Confirmability	Transferability
Definition of research questions	✓	✓		
Research protocol			✓	✓
Data gathering				
Firm selection process				✓
Source triangulation	✓	✓		
Rich description of methods & sequence			✓	
Multiple investigators/devil’s advocates	✓	✓	✓	
Coding scheme development	✓	✓		✓
Pilot firm analysis review		✓		
Data analysis				
Coding reliability check		✓		
Theoretical saturation (replicated findings)	✓			✓
Rich description of themes	✓		✓	✓
Theory development				
Emergent theory (process model)	✓	✓	✓	
Links to existing theory	✓			✓
Theoretical and managerial implications				✓
Limitations and future research				✓

SCI using a framework originally developed to explain corporate integrity. Therefore, we seek to elaborate, or refine, the existing SCI content and corporate integrity concept, thereby extending theory by identifying new content and relationships not associated with the original concepts and frameworks (Ketokivi & Choi, 2014; Klein & Sorra, 1996; Meredith, 1998). Prior to and during execution, we drafted and maintained a comprehensive protocol that provided an overview of the research, procedures, data collection and analysis guidance, and results reporting guidance to ensure the research team remained synchronized (Boyatzis, 1998; Yin, 2014). The protocol also served to enhance confirmability and transferability of the research findings (Miles et al., 2020).

Sample Selection

To select firms for this research, we combined two purposeful sampling options: homogenous sampling and stratified purposeful sampling (Patton, 2015). Specifically, firms were selected from the 2008–2019 Axios Harris Poll Corporate Reputation Rankings, which “ranks the reputations of the most visible companies in the United States,” (The Harris Poll, 2019). The Axios Harris Poll categorizes firms into one of seven categories: Excellent; Very good; Good; Fair; Poor; Very poor; Critical. First, to identify homogenous cases by Harris Poll reputation, we selected excellent or very good firms. Harris Poll firms are rated across three key attributes: consumer affinity, business trajectory, and organizational character. In particular, firms’ organizational character is rated on three factors: good culture, ethics, and citizenship.

These factors identify whether the firm is a good company to work for, maintains high ethical standards, shares consumers’ values, and supports good causes. Thus, excellent or very good firms represented information-rich cases from which we could garner insights and an in-depth understanding of issues surrounding SCI in a real-world context (Patton, 2002). That said, it is important to note here that we do not claim the selected firms fully displayed SCI, since proof of achievement was not pursuant to the purpose of the research.

Next, to narrow the sample, we employed a stratified sampling process across multiple criteria (Patton, 2015). The first two Harris Reports (2008/2009; 2009/2010) included 28 distinct excellent and very good firms. From the initial 28 firms, three criteria were applied to narrow the sampling pool:

1. **Categorization.** A firm must be categorized as a manufacturer or retailer. This ensured a clearly defined focal firm of a supply chain with upstream and downstream product flow (Mentzer et al., 2001). Additionally, this criterion aligned the research with Castillo et al. (2018), whose study evaluated manufacturers and retailers.
2. **Primary focus of the firm.** Manufacturing and/or retailing must be the primary focus of the firm. For example, two eliminated firms operate product supply chains, but also reside in the entertainment industry, blurring the line between the manufacturing and entertainment designations for these firms.
3. **Continuity in the Harris Poll rating.** Only those firms represented in at least 10 Harris Poll reports since the

Table 4 Description of each firm's characteristics, context, and reputation

Firm	# Employees	Years in operation	2019 reputation	# Years on Harris Poll (2008–2019)
Retailer 1 (R1)	~ 650,000	25	Excellent	10
Retailer 2 (R2)	~ 250,000	43	Very good	11
Retailer 3 (R3)	~ 300,000	74	Very good	10
Manufacturer 1 (M1)	~ 30,000	71	Very good	11
Manufacturer 2 (M2)	~ 140,000	133	Very good	11
Manufacturer 3 (M3)	~ 37,000	5	Very good	11

2008/2009 report are included. This stratification factor provides additional assurance that the selected firms' reputations have been steady over time.

Through the stratification process, we identified 11 relatively large manufacturers and retailers with robust, multi-echelon, global supply chains for potential inclusion in the research sample. From this sampling pool, we selected two manufacturers and two retailers based on the firms' Harris Poll reputation scores over time and the need to evaluate firms from different industries. The manufacturers represented the auto, motorcycle, and powered equipment manufacturing and consumer products manufacturing industries. The retailers sold consumer products of all types, with one firm focused on grocery and household items.

Firm selection continued through the analysis until theoretical saturation was achieved, when each additional firm's data revealed consistent content of themes and consistent relationships between themes (Charmaz, 2014; Randall et al., 2009). We did not reach theoretical saturation with analysis of the original four cases. Therefore, we added an additional manufacturer and retailer to the sample to replicate findings, achieve saturation, and improve credibility and transferability of the findings (Miles et al., 2020). The additional manufacturer represented food production and the additional retailer represented the home improvement industry. Selection of these firms was based on Harris Poll rating total scores and product offerings that were different from the previously selected firms. Therefore, overall, we utilized data from 6 firms (3 retailers and 3 manufacturers). Selection of 6 firms ensured multiple-firm sampling adequacy, which is normally attained with 4–10 firms (Barratt et al., 2011; Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2014). Firm selection efforts also ensured data source triangulation, and improved transferability through sampling of multiple, diverse firms, and by placing limits on sample selection (Miles et al., 2020).

The purpose of this research was to capture the complexities of the content of SCI and the social process required to develop and maintain SCI. The purposeful sampling process resulted in information-rich cases that, when evaluated,

yielded insights and in-depth understanding of SCI. Thus, our selection of firms served to illuminate the questions under study (Patton, 2002). Table 4 presents the anonymized case firms.

Data Collection

Similar to previous research, we gathered data from each firm's archival and website content (Chun, 2019; Jose & Lee, 2007; Windscheid et al., 2018). In order to obtain method triangulation, and increase credibility of the data (Miles et al., 2020), the following types of documents and visual materials were collected from the firms' archival and website content for analysis: corporate annual reports, sustainability reports, mission statements, vision statements, codes of conduct and published standards, supplier manuals and guidelines/standards, policy statements, news releases, and other relevant website content. Information from a variety of publicly available corporate sources allowed us to empirically ground the SCI concept in every day corporate communication, elaborate and refine SCI content, and elucidate the underlying social process for how organizations may assess, develop, and maintain SCI (Castillo et al., 2018).

In total, we collected and analyzed 123 archival documents and visual materials. Data sources were consistent across firms in that each firm had published representative content in the categories described above. This consistency of data sources across firms improved confidence in the dependability of the data and findings (Miles et al., 2020). We converted the information to Microsoft Word or Adobe pdf file format and uploaded it into the qualitative data analysis software program NVivo 12.

To ensure researcher triangulation (Miles et al., 2020) and increase confidence in the credibility, dependability, and confirmability of the research process, we employed multiple investigators (Boyatzis, 1998; Eisenhardt, 1989; Miles et al., 2020). Three of the authors participated in the data collection process. During data collection, two authors retrieved the data, while the other author reviewed the data for relevance and completeness. Two authors did not participate in data collection and acted as "resident devil's advocates"

(Eisenhardt, 1989; p. 538) to help reduce bias associated with data collection and analysis (Miles et al., 2020).

Thematic Analysis Process

We analyzed data sources using NVivo 12 qualitative data analysis software. We conducted analysis concurrently with ongoing data collection (Miles et al., 2020), and continued analysis after data collection was complete (Fleury & Fleury, 2007). First, we organized the data by firm. Second, following step 1 of the thematic analysis process (Braun & Clarke, 2006), we immersed ourselves in the data, gaining a sense of the overall meaning of the information (Creswell, 2014).

Similar to previous research, and in alignment with step 2 of thematic analysis, we generated an initial code list and coding rules (Boyatzis, 1998; Braun & Clarke, 2006; Tangpong, 2011; Windscheid et al., 2018). This step was also necessary to improve confidence in the credibility, dependability, and transferability of the findings (Miles et al., 2020). The code list consisted of the SCI-7C themes (Table 1), which served to focus our coding efforts within the guiding frameworks. Additionally, we grounded the coding process in the supply chain, versus organizational, context. Guiding definitions for supply chain and supply chain management were as follows:

Supply Chain (Mentzer et al., 2001; p. 4): a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer.

Supply Chain Management (CSCMP, 2020): Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.

For example, the coding rules for the theme *Structural Consistency* read as follows, “Assign a passage to the *Structural Consistency* theme if its content reflects the following: the firm and its SC partners match words and deeds, and achieve expected outcomes that matter.”

Steps 3–5 of thematic analysis represent the coding processes. Given we were working to extend existing theoretical foundations, our coding process began deductively, and continued inductively. Step 3 of thematic analysis, searching for themes (Braun & Clarke, 2006), represented the deductive coding process. To improve dependability of the coding process and findings, we conducted an initial coding pilot

effort with a single firm to ensure consistent interpretation of the coding rules and application of the coding process (Boyatzis, 1998; Miles et al., 2020). This effort resulted in clarification of the coding rules before large-scale coding was conducted across all firms.

Following the pilot coding effort, we analyzed all firms’ data sources line-by-line and coded accordingly. First, we coded as a theoretical, or deductive, process to structure the data as the SCI-7C themes (Step 3; Braun & Clarke, 2006; Strauss & Corbin, 1998). Then, given we were also examining and extending the SCI and 7Cs frameworks, we invoked inductive coding (Step 4; Braun & Clarke, 2006; Charmaz, 2014). This coding approach served to develop and organize lower-level themes within each of the SCI-7C themes (Miles et al., 2020; Strauss & Corbin, 1998), enhance pattern recognition and interpretation (Braun & Clarke, 2006), and reduce potential researcher bias associated with applying a solely deductive coding approach (Boyatzis, 1998).

Step 3 resulted in series of coded passages and terms representing each SCI-7C theme, which set the stage for Step 4, defining and refining themes (Braun & Clarke, 2006). During this step, we combined initial coding results (list of coded passages and terms) into a single document for each SCI-7C theme. Then, we employed inductive pattern and focused coding to provide more detailed and informative categorization of passages associated with each of the themes (Braun & Clarke, 2006; Saldaña, 2016). For example, *Moral Commitment* is defined as “the firm serves a worthwhile purpose supported by its SC partners.” When the data were coded inductively, *Moral Commitment* reflected themes illustrative of a worthwhile purpose, including “focus on customer,” “meeting relevant needs,” “providing value,” “pursuing social responsibility” and “maintaining environmental stewardship” (see Appendix A in Table 5).

During this step, to further confirm dependability of the coding process, we also conducted a coding reliability check (Boyatzis, 1998; Miles et al., 2020). After data from all firms were coded, we selected a sample of 178 representative codes and terms (~17% of the total number of coded passages and terms) for the reliability check. One researcher who had collected data, but not conducted the coding was provided with a list of agreed-upon operational definitions, the list of codes, coding rules, and the coded passages. The researcher reviewed each of the coded passages and the team discussed each coded passage or term that lacked intercoder agreement (17 of 178 passages and terms). After discussion primarily surrounding study and supply chain context, and coding adjustment of the passages or terms in question, the team reached an agreement on 100% of the coded passages and terms (Braun & Clarke, 2006; Windscheid et al., 2018).

Overall, during this step, we identified lower-level themes to elaborate the SCI-7C themes. Moreover, we began to gain an initial understanding of how the themes fit together, thus

revealing a thematic map that would eventually become the process model (Braun & Clarke, 2006). Appendix A in Table 5 provides representative coded passages and sources for SCI Moral themes. Appendix B in Table 6 provides representative empirical evidence for SCI Structural themes. Appendix C in Table 7 provides representative evidence for SCI *Continuity*, which can represent both moral and structural themes.

These results helped us move to Step 5, describing and interpreting themes (Braun & Clarke, 2006). In this step, we developed vivid descriptions of the themes and lower-level themes, essentially identifying the “essence” of each theme (p. 92). The thematic descriptions are presented in the Findings section below.

Additionally, continuing Step 5, we shifted the focus of the analysis to broader interpretation and explanation of the themes. Specifically, we sought to elaborate the relationships among the themes, as analysis had begun to point to SCI as a process. A theoretical process is described as “a series of evolving sequences of action/interaction that occur over time and space, changing or sometimes remaining the same in response to the situation or context” (Strauss & Corbin, 1998; p. 165). Structure and process are inextricably linked, and one must understand structure and process to understand the evolving nature of events (Strauss & Corbin, 1998).

Analytic memos recorded how themes, relationships between themes, and processes were revealed in the data, and documented the logic behind the themes and relationships (Charmaz, 2014; Randall et al., 2010; Saldaña, 2016; Strauss & Corbin, 1998). For example, an excerpt from an analytic memo concerning *Structural Consistency* read as follows:

... ‘conduct’ does not necessarily reveal integrity if it is not achieving its intended purpose. For example, many firms have programs ‘on the books,’ thus showing they are compliant. However, those programs may not produce positive or effective outcomes (and sometimes may produce no outcomes at all, because the programs are ‘eye wash’). Thus, ineffective behavior (‘conduct’), when discovered, provides evidence of a lack of ‘consistency.’ This may influence the firm and SC partners to get the ineffective ‘conduct’ back in line. That is, they may make changes to the program (or actually implement the program) to achieve positive, effective outcomes. Therefore, in the process model, we propose a double-sided arrow between ‘conduct’ and ‘consistency.’

This excerpt reveals action and interaction between the coded SCI themes that occur over time and space and can be viewed as context dependent. The action and interaction were identified through constant and theoretical comparison across firms’ data sources and coded passages. Here, we

provide an example of this analysis process. That is, we use coded passages from Firm R3 in Appendix B in Table 6 to represent the action and interaction between the Conduct and Consistency dimensions referenced in the example analytical memo above. R3 employs “Conduct-Restorative Practices” as the following quote indicates, “Factories with high risk findings are required to attend a mandatory workshop conducted by R3 where vendors are provided with industry best practices and tools to help address any issues.” Moreover, R3 reveals “Consistency-Evidence of Compliance”, which a restorative practice would produce, in the following passage, “In 2013, we worked with factories to complete more than 1,300 corrective actions. Three audits had findings that resulted in a denial of business.”

As actions and interactions between themes were revealed in the data, an evolutionary process of SCI began to emerge. Moreover, the process of developing and maintaining SCI became clearer when viewed against a backdrop of evidence of the changing social and environmental context over the last two decades. Sustainability reports, a key data source, revealed evolution in firms’ responses to changing stakeholder expectations and requirements over time. While the reports revealed that those responses changed over time, some elements in early reports were selected and retained in future reports, which follows Van de Ven and Poole’s (1995) conception of an evolutionary process of development, or change.

Again, utilizing R3 as the example for explanatory continuity, an analytic memo read as follows:

R3 has published an annual sustainability report since 2003. The contrast in content across the reports over time is noteworthy. As a surface level example, the 2003 report is 12 pages long and is mainly focused on community involvement (zero content about the supply chain). The 2013 report is 71 pages and covers a variety of topics in social responsibility (in addition to community involvement) and environmental stewardship, and includes discussion about the supply chain. The 2018 report is 41 pages. It’s shorter, but it’s more concise and breaks down sustainability into strategy, goals, and results, with a clear focus on the importance of the supply chain.

This phenomenon was confirmed through constant comparison of the data from other firms (Charmaz, 2014). Thus, the interpreted process sequence for Commitment, Content, Context, Conduct, and Consistency became evident in the data with constant and theoretical comparison across SCI themes and firms. An analytic memo also explained the sequence as follows:

Process starts with Commitment (to a worthwhile purpose/mission). Commitment sets the foundation for

adoption of focus areas (Content) and ethical, responsible behavior (Conduct). From Commitment, firms develop Content in the form of focus areas (that are representative of social/environmental responsibility expectations; aligned with societal standards, laws, regulations). If firms' SC partners are "on the same page" with respect to Content, Context is achieved. Of note, the firm and SC partners may not be fully on the same page because of tradeoff mentality, resources, or cultural factors. The key is to work toward/develop Context if it doesn't already exist. The firm and SC partners establish a code of conduct, goals, programs, and governance mechanisms (that represent Content) to ensure proper Conduct. This Conduct is proactive in nature, essentially encouraging responsible action (integrity approach). Firm and SC partners "act" with Consistency, essentially achieving intended objectives of Conduct. If objectives aren't met, SC partners are brought back into a state of appropriate Conduct, or relationship is terminated.

The examples show the coding and interpretation processes revealed a series of evolving sequences of action and interaction that occur over time and space, changing or sometimes remaining the same in response to the situation or context. Thus, SCI may represent an evolutionary process (Van de Ven & Poole, 1995; Van de Ven, 2013).

Findings

Recall that the purpose of the research was not to establish whether or not the selected firms displayed SCI, but to empirically ground the SCI concept, to elaborate and refine its content, and to identify the underlying social process for how organizations may assess, develop, and maintain SCI (Castillo et al., 2018). Steps 5 and 6 of the thematic analysis are presented in the next sections. Specifically, results from Step 5 are presented to elaborate the "essence of what each theme is about." Moreover, for Step 6 we "tell the complicated story" of the data by presenting a process view of SCI (Braun & Clarke, 2006; pp. 92–93).

Elaborating SCI

SCI Moral Themes

Commitment Overall, *Commitment* data reflect firms' commitment to meeting relevant customer needs and addressing key customer challenges by providing quality products and services for a fair price, or value. At the same time, committed firms engage all stakeholders, including customers, employees, suppliers, community leaders, etc., to ensure

environmental and social sustainability throughout the supply chain, and across all geographic regions in which they operate. Therefore, *Commitment* seems to go beyond firms simply achieving economic prosperity for shareholders. Firms must pursue their greater, worthwhile purpose and take care of the communities and environment in which they operate.

Content This theme specifies the firm's guiding principles and focus areas for ethical and responsible behavior, and includes supply chain partners. Adoption of these principles and focus areas is generally expected of supply chain partners. Focus areas, in order to align with societal norms, are largely drawn from domestic and international laws, regulations and standards; stakeholder engagement; and participation in international, industry, and multilateral groups (e.g., Business for Social Responsibility [BSR]; Responsible Sourcing Network [RSN]; International Organization for Standardization [ISO]).

Focus areas generally comprise specific activities associated with social responsibility, such as respect for human rights; voluntary work; employee safety, health, and well-being; and fair labor practices. Additionally, focus areas include activities associated with environmental stewardship, such as energy consumption and efficiency; reduction of greenhouse gas emissions; and conserving or restoring natural ecosystems. However, some overlap exists between social responsibility and environmental stewardship, particularly in the areas of responsible sourcing and sustainable product development and sales. Focus areas are intended to benefit global stakeholders, such as employees, suppliers, customers, and communities, and the environment(s) in which the supply chains operate. Societal norms may change over time; thus firms and their partners are likely to continually assess their guiding principles and focus areas and adjust as necessary.

Coherence In contrast to a firm merely paying lip service to guiding principles and ethical behavior or using them merely as promotional tools, a firm and its supply chain partners committed to *Coherence* are truly dedicated to using stated guiding principles and ethical behavior, are proactive about them, and stick to them even when adversity or shocks in the external business environment may reward less responsible behavior. Data analysis revealed firms and supply chain partners may be required to maintain adherence to guiding principles in the face of adversity or negative consequences associated with adverse event(s) such as the COVID-19 pandemic. Negative consequences could include higher costs, drops in demand, and production disruptions, to name a few. Firms' responses to COVID-19 provided empirical examples of their response to adversity and how firms and supply chain partners can remain true to

guiding principles during an adverse situation and potentially negative or costly consequences.

Additionally, to display *Coherence*, firms and supply chain partners may proactively take on additional activities or costs up front to maintain adherence to guiding principles. Examples of this behavior may include working with suppliers to improve products and product delivery, providing a living wage to suppliers during a production shutdown, addressing ongoing societal issues through better supply chain processes, and working with non-conforming supply chain partners to help bring them into compliance with standards. Firms may also respond to adversity while maintaining adherence to guiding principles and continuing to conduct responsible behavior despite the potential negative consequences caused by the adverse situation. For example, during the COVID-19 response, firms stated they took several additional measures to protect the health, safety, and welfare of employees and simultaneously worked to ensure the welfare of supply chain partners and communities in which they operate. These measures often required large payouts, shutdowns of production facilities, changes to layouts of facilities, and updated supply chain processes, all of which had the potential to, for example, increase operating costs and reduce revenue.

SCI Structural Themes

Context Whereas *Content* specifies the guiding principles and focus areas for a firm's and supply chain partners' ethical and responsible behavior, *Context* represents the mechanisms that create wholeness, or unity, among a firm and its supply chain partners. The firm and its supply chain partners choose to work together, and the focal firm prescribes and aligns everyone to a common set of principles and focus areas through communication, collaboration, and coordination, thus working toward a unity of character. That is, a firm and its supply chain partners achieve wholeness by prescribing to the same *Content*. This process is likely ongoing, particularly as societal norms change and supply chain partner development occurs.

Specifically, firms may actively seek, or engage, like-minded supply chain partners and communicate expectations regarding common guiding principles and standards to supply chain partners, mainly to ensure all parties are aligned. Firms may seek feedback from supply chain partners in this process, but the data show focal firms often dictate the principles and standards through supply chain partner engagement activities. That is, a focal firm may actively encourage and expect adherence to common standards of all supply chain partners. A firm and its supply chain partners become bound to common standards, which may be communicated via a published Code of Business Conduct and Ethics, Supplier Code of Conduct, Supply Chain Standards, or Supply

Chain Guiding Principles. Firms may even require sub-tier suppliers or subcontractors to abide by the standards. *Context* collaboration is an ongoing process in which the firm establishes close relationships with its supply chain partners to align all parties to the common set of guiding principles and focus areas. Finally, *Context* coordination is the ongoing process in which a firm and its supply chain partners formally prescribe to common guiding principles and focus areas by employing contractual mechanisms, agreements, or compulsory performance thresholds.

Overall, to achieve unity of character or relational wholeness, the data reveal firms may actively seek and engage with like-minded supply chain partners. Once supply chain partners are identified and selected, the firm communicates its guiding principles and focus areas, normally via "Supplier Standards" or "Code of Ethics and Conduct" documents, though the data also revealed events such as conferences, formal assessments, and statements may also serve to broadcast expectations for guiding principles and focus areas. The firm and its supply chain partners then work closely together to align all parties to the guiding principles and focus areas. Alignment may even be formalized through signed contracts or agreements, or required achievement of performance standards.

Conduct *Content* defines the guiding principles and focus areas for a firm's and supply chain partners' ethical and responsible behavior, while *Conduct* represents the specific practices necessary to achieve ethical and responsible behavior. Additionally, as *Context* represents the mechanisms to align a firm and its supply chain partners to a common set of guiding principles, *Conduct* represents the existing practices associated with such alignment and, thus, serves to prevent irresponsible or unethical behavior, or ensure or correct irresponsible or unethical behavior.

The data revealed *Conduct* associated with two main areas. That is, firms and supply chain partners may pursue integrity through preventive practices designed to monitor and ensure compliance, conformance, and performance in line with established standards and expectations. They may also employ restorative practices designed to correct or restore responsible and ethical behavior.

Preventive practices are generally associated with a firm's actions to monitor and ensure supply chain partners' compliance, conformance, and performance in line with established standards and behavioral expectations. Preventive practices, such as supply chain partner training and development; screening, audits, and assessments; verification and due diligence; transparency; and continuous improvement, may help firms and their supply chain partners close existing and potential integrity gaps. Specifically, firms and supply chain partners may establish training programs designed to teach standards and responsible and ethical behavior to employees

before ethical issues arise. Firms may also establish programs designed to screen, audit, and assess the actions and behaviors of supply chain partners to ensure compliance with and conformance to standards and behavioral expectations. Audit and assessment types and frequencies may vary depending on measured risk, and due diligence may be required up front as a proactive measure to prevent non-compliant and non-conforming behavior. Additionally, the firm and its supply chain partners may truthfully disclose required information to provide evidence of compliance with standards and conduct of responsible behavior, and prevent future integrity gaps. Finally, firms can also employ practices to ensure continuous improvement of behavior within standards or acceptable behavior change. That is, they may continually seek to improve compliance with standards and responsible behavior, which may be accomplished through practices such as legal support, goal setting, benchmarking, and incentivizing compliance and responsible behavior.

Firms and supply chain partners may also implement processes designed to restore ethical and responsible behavior, which may include accountability measures, verifications, and training and development. When audits reveal partners' non-compliance with established standards and behavioral expectations, firms may take corrective action. Accountability measures and actions may include corrective action plans (CAP) or termination of the relationship. Additionally, firms may stipulate that accountability measures be commensurate with the type of violation and corrective action response. In some cases, strength of response to non-compliant behavior may depend upon the nature of the supply chain relationship, and in all cases must be legal. Once CAP or remediation efforts are put in place, firms may require verification of progress toward compliance, or improvement of behavior. When required, firms may engage supply chain partners through training and development to help them meet standards and conduct responsible and ethical behavior after instances of non-compliant or non-conforming behavior occur.

In summary, *Conduct* represents the structural practices in place to prevent breaches of common standards and restore ethical behavior throughout the supply chain. Preventive practices serve to ensure compliance, conformance, and performance in line with established standards and expectations, while restorative practices serve to bring behavior back in line with established standards and expectations.

Consistency *Conduct* represents the specific practices that flow from *Content*. *Consistency* embodies the visible or measurable outcomes that reveal *Conduct* is, in fact, implemented, effective, and impactful. That is, firms and supply chain partners are actually doing what they say they do, the stated *Content* and *Conduct* match, and they are effectively achieving expected outcomes that matter to stakeholders. Analysis revealed several key areas of *Consistency*. That

is, to provide evidence of *Consistency*, matching of *Content* and *Conduct*, firms may provide tangible evidence, to include metrics and outcomes related to compliance, goal progress and accomplishment, and impact of responsible and ethical behavior on communities and the environment.

For example, in relation to compliance, if a firm states it has a supplier audit program, the firm may report the number of inspections conducted in a particular year, thus revealing *Consistency* in that the audit program is actively functioning. Evidence related to the number of corrective actions identified and fixed in a specified time period may provide more robust evidence of *Consistency*. Additionally, evidence related to accountability measures taken on suppliers, such as relationship termination, could also represent *Consistency*. Taken together, this tangible evidence may point to *Conduct* that is effective at meeting specified outcomes or requirements, thus revealing the firm's *Consistency* of responsible behavior.

Moreover, as another example revealed in the data, many firms and their supply chain partners state goals related to environmental and social sustainability. To provide evidence of *Consistency*, firms may report evidence of progress toward specified goals, or evidence of goal accomplishment. For example, product manufacturers and retailers may specify a goal for the production and sale of industry-certified products. That is, they may specify a goal related to industry certification of their products. A statement that reveals progress (i.e., 80% of production and sale of the product is industry certified) or goal completion (i.e., 100% of production and sale of the product is industry certified) may reveal evidence of *Consistency*.

Finally, the data revealed firms and supply chain partners may provide evidence of the impact of stated *Conduct*. In certain instances, firms and supply chain partners may conduct responsible behavior, but not necessarily set specific goals for such behavior. In these cases, they may report outcomes of particular *Conduct*. For example, firms and supply chain partners may provide quantifiable evidence of reduced emissions or recycling efforts. These outcomes provide evidence that *Conduct* is producing some positive, effective outcomes, and thus reveals evidence of *Consistency*. These impacts may not necessarily be associated with specific goals, but the results may be a by-product of broader *Content* and associated *Conduct*.

SCI Moral and Structural Theme

Continuity This theme can be categorized as both moral and structural, and can be present across the other themes (C's). That is, *Continuity* reveals dedication to ethical and responsible behavior, via the other C's, over time. Analysis revealed several key areas of *Continuity* that represent past and current behavior associated with the other 6Cs. Of note,

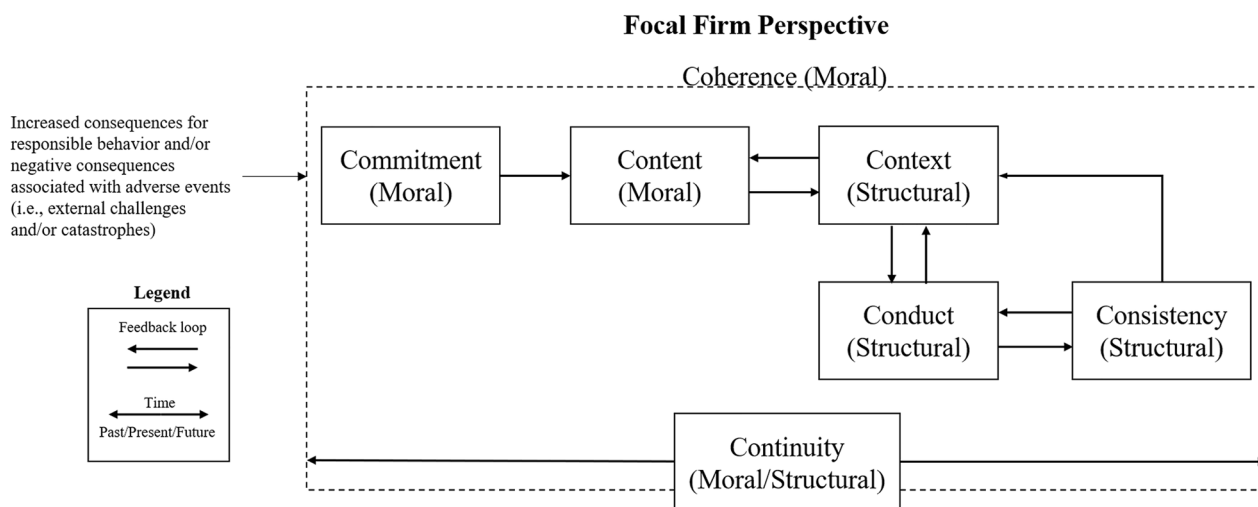


Fig. 1 Process model of SCI

Continuity may not simply represent that firms and supply chain partners have fully achieved responsible or ethical action or behavior, but that they are at least making progress to that end. Some sustainability efforts, for example, may require years of steady progress to meet stated objectives. Additionally, social and environmental needs may change over time, thus requiring firms and supply chain partners to adjust *Content*, *Conduct*, and *Context*.

Overall, *Continuity* represents both the structural and moral SCI components because examples of *Continuity* exist across the other 6C's. For example, firms may display their (1) *Commitment* to a worthwhile purpose since the founding of the company; (2) dedication over time to *Content* revealed in guiding principles and responsible activities; (3) *Context* with SC partners over time; (4) *Conduct* to prevent integrity gaps and ensure ethical behavior over time; (5) *Consistency* in matching *Content* and *Conduct* over time; and (6) *Coherence* revealed in adherence to guiding principles over time for the right reasons, even when negative consequences occur. Firms revealed *Continuity* through statements about current behavior, that certain actions and processes are ongoing, and that they are continuously improving to meet, for example, social and environmental needs.

Toward a Process View of SCI

Viewed from a focal firm perspective, we propose the process view of SCI¹ that emerged from the data analysis, as depicted in Fig. 1.

¹ Remember that a process model depicts events over time, rather than addressing constructs that co-vary at a point in time, as typically depicted in variance models (Esper et al., 2010; Langley, 1999; Mohr, 1982).

The SCI process starts with focal firm's *Commitment* to a worthwhile purpose that goes beyond profit. Drawing from this *Commitment*, the focal firm identifies and develops *Content* in the form of guiding principles and focus areas for ethical and responsible conduct. These focus areas are generally drawn from existing standards, laws, and regulations, sustainability guidance (e.g., ISO 26000 guidelines), and engagement with external stakeholders, including supply chain partners, communities, and international and industry organizations. Focus areas may change over time due to changing societal and industry norms, thus requiring firms and supply chain partners to continually assess the relevance of their focus areas and adjust as necessary. The focal firm engages supply chain partners to align all parties to the common set of guiding principles and focus areas, thus developing *Context*. Focal firms may seek supply chain partners that are like-minded. However, all supply chain partners may not initially be aligned to a common set of principles because of various factors such as a tradeoff mentality, available resources, or culture. Thus, focal firms may have to encourage or push internal and external partners toward alignment through mechanisms such as communication, collaboration, and coordination.

Next, the process model suggests the focal firm establishes and implements internal and external practices to ensure proper *Conduct* across supply chain partners. This *Conduct* can be proactive in nature, essentially encouraging responsible action to prevent gaps in alignment. Examples include but are not limited to supplier qualification screening; audit and assessment programs; and verification/due diligence. As the model shows, when non-compliant and non-conforming *Conduct* are discovered, a firm will likely need to strengthen the *Context* with its supply chain partners. In the process to get external partners' *Conduct* back in line,

they may determine they need to better communicate standards and expectations, increase collaboration to implement and verify the corrective action plan, or coordinate agreement via a formal mechanism to improve compliance and behavior to the expected levels.

The focal firm and supply chain partners act with *Consistency* when guiding principles are formally put into practice, and are aligning *Content* and *Conduct*. Examples of consistency may include tangible progress toward sustainability goals; supply chain partner improvement based on a corrective action plan; and termination of problematic supply chain relationship(s). That is, *Conduct* alone does not necessarily reveal integrity, especially if it is not achieving its intended purpose. For example, firms may have various programs and practices “on the books,” thus showing they are technically compliant. However, those programs and practices may not produce positive or effective outcomes, and sometimes may produce no outcomes at all, because the programs are “eye wash”. Thus, ineffective *Conduct*, when discovered, provides evidence of a lack of *Consistency*. This occurrence may influence the firm and supply chain partners to get the ineffective *Conduct* back in line. That is, they may make changes to the program or practice or, in some cases, actually implement the program or practice to achieve expected, effective outcomes. Thus, the process model denotes a feedback loop between *Conduct* and *Consistency*. Firms are not likely able to address one dimension without addressing the other as well.

Additionally, firms and supply chain partners may determine they need to better communicate standards and expectations, increase collaboration to fix the ineffective behavior, or coordinate via a formal mechanism agreement to improve compliance and behavior to align *Content* and *Conduct*. Thus, the lack of *Consistency* may reveal the need for improved *Context* that leads to compliant or improved *Conduct*. Therefore, the process model denotes a feedback arrow between *Consistency* and *Context*. Overall, when *Consistency* is exercised or improved, it can alter the *Context*, creating better supply chain alignment.

Continuity reveals a firm’s and supply chain partners’ past and current dedication to the other 6C’s. *Continuity* does not imply stagnate behavior, that firms and supply chain partners merely met expectations, rather the data show that firms and supply chain partners are likely to continuously improve over time. For example, they have addressed in the past, and continue to address, environmental and social sustainability issues. Over time, the focal firm and supply chain partners develop *Continuity* by maintaining and continuously improving *Context*, *Conduct*, and *Consistency*, and they maintain *Continuity* through *Commitment*, developing and encouraging *Content* aligned with societal norms, and *Conduct* that considers all stakeholders, or at least are improving in all those areas.

Finally, *Coherence* may serve to guard against potential threats to alignment that can be caused by adversity or shocks in the external business environment. The focal firm and supply chain partners may establish *Coherence*, adhering to principles for the right reasons, even when faced with adversity or negative consequences. For example, threats to *Coherence*, such as increased costs, may arise with each of the 6Cs. Threats to *Commitment* may be revealed in the firm’s desire to focus solely on profit during challenging economic times. *Content* threats may include expensive engagement process with stakeholders. Threats to *Context* may represent the high costs to establish effective relationships with supply chain partners. *Conduct* may be threatened when goals are too difficult or expensive to achieve across supply chain partners. Threats to *Consistency* may arise with the loss of a key supplier or customer. And finally, costs to continually maintain level of effort or improve over time may threaten *Continuity*. Therefore, *Coherence* provides an ethics-based barrier to discourage firms and supply chain partners from employing a tradeoff mentality when faced with various threats.

Discussion

This research elaborates Castillo’s et al. (2018) and Maak’s (2008) initial conceptualizations, while positioning SCI as an evolutionary process. Our narrative empirically grounds SCI in every day corporate communication, revealing the nature of potential integrity and sustainability issues in today’s supply chains. The process model moves discussion of integrity in complex, global supply chains away from static views of “having it” or not having “enough” when individual firms are blamed for wrongdoing. Multiple stakeholders now have a say in how firms and supply chains operate, thus integrity is not necessarily “a fixed end state” (Kennedy-Glans & Schulz, 2005; p. 8). Moreover, Maak (2008; p. 360) asked, “Can we apply the same conditions and integrity requirements to corporations and individuals? The answer is yes...” Thereby, we extend Maak’s corporate integrity argument to include supply chains, explaining integrity as an inter-organizational phenomenon as well.

Our first contribution to the broader corporate integrity body of knowledge moves beyond the 7C’s framework, providing a novel theoretical lens through which to view real-world supply chain integrity issues. Additionally, the process view represents a unifying framework, thus extending previous research in corporate and supply chain ethics. Specifically, scholars have noted that corporate integrity is grounded in a commitment to a worthwhile purpose, which should entail the firm doing something for the public good (Brown, 2005, 2014). The firm’s purpose sets the foundation for assessing and improving integrity (Brown, 2006).

SCI suggests that *Commitment* sets the foundation not just for the focal firm, but for the entire supply chain. *Commitment* also informs *Content*, which drives culture and supply chain operational decision-making. *Commitment* and *Content*, when aligned throughout the supply chain, help avoid perceptions of competing demands between supply chain performance and responsible and ethical behavior (Dodd & Dodd, 2014).

The SCI model also proposes mechanisms are employed in *Context* to help create unified supply chain relationships to mitigate competing demands throughout the supply chain, and inform responsible conduct (Ferrell & Ferrell, 2014; Ferrell et al., 2013). Responsible conduct throughout the supply chain flows from aligned *Commitment*, *Content*, and *Context*. When these elements are not aligned throughout the supply chain, misconduct may occur (Ciccullo et al., 2018). Therefore, supply chain systems and practices, designed to prevent misconduct or irresponsible behavior before it occurs, or to restore conduct after a breach of integrity occurs, must be in place (Ferrell & Ferrell, 2014). The SCI model reveals that training and development on standards and behavior, throughout the supply chain, may be part of a culture of integrity, which has been shown to reduce corruption in organizations (Bussmann & Niemeczek, 2019), and encourage responsible supply chain actions (Yawar & Seuring, 2017).

Supply chain systems and practices are not enough if they are not achieving the expected outcomes of responsible and ethical behavior. The SCI model proposes that supply chain *Conduct* must achieve the supply chain's intended purpose, essentially achieving *Consistency* (Maak, 2008). Scholars have recently highlighted that firms' stated values are often not aligned with actual behavior (Sull et al., 2020). Some have even stated it is possible to be unethical or unsustainable and be deemed an exemplar in sustainability (Shevchenko et al., 2016). Therefore, firms must align their forward-facing image with representative behavior to avoid "woke washing" (Dowell & Jackson, 2020) or "green washing" (Laufer, 2003). In the SCI model, this alignment should take place across all key supply chain partners (Brockhaus et al., 2013), to include upper tiered suppliers (Roberts, 2003), and customers (Li et al., 2018).

If responsible and ethical behavior is not occurring consistently, focal firms may have to adjust *Context* and *Conduct* (Busse et al., 2016; Yawar & Seuring, 2017). What follows in the SCI model, therefore, is that SCI is not established by a single ethical or responsible act, event, or program in time (Maak, 2008). Rather, the SCI model proposes supply chains must align words and deeds to achieve responsible and ethical behavior over time, maintaining *Continuity*, which will often require continuous improvement efforts. For example, Wu and Pagell (2011) found firms established sustainable supply chain practices, and differentiated themselves from

other firms, through a sequence of decisions over time. Decisions were incremental and occurred through continuous improvement of the existing supply chain, a process revealed in the SCI model.

Finally, ethical missteps over the past 30 years have revealed that threats to values-behavior alignment in supply chains are prevalent (Ferrell & Ferrell, 2014). This issue is also presented in the SCI model. Thus, firms and their supply chain partners must establish safeguards to manage risk, or quickly recover from misconduct through *Coherence*. For example, firms should not prioritize cost reduction over sustainable or ethical supplier selection (Kim et al., 2019). Also, studies have shown that while the stock market does not necessarily penalize the focal firm for supply chain misconduct, today firms are balancing moral and ethical issues against competitive issues such as pricing (Jacobs & Singhal, 2017). It follows that when *Coherence* is part of a strategy, supply chains are more resilient to disruption events, such as the COVID-19 pandemic (Cosgrove, 2020).

The second contribution of this research extends to organizational learning theory and process theories of development and change. First, recent research revealed "supply chain learning is a fundamental process to develop, use and further improve supply chain capabilities that allow for the development of supply chain sustainability initiatives..." (Silvestre et al., 2020; p. 1329). The SCI model extends this finding by leveraging the supply chain learning process as a tool to help researchers and managers determine how a culture of supply chain integrity can be developed, changed, adapted, or protected over time. In the absence of learning, firms repeat old practices (Garwin, 1993). The SCI process model, however, reveals a learning framework in which firms and their supply chain partners can learn from success or failure in SCI (Argyris, 1994). To our knowledge, no one has ever characterized integrity as an inter-organizational learning process.

Moreover, learning requires a shared vision, or *Commitment* (Sinkula et al., 1997), and the SCI process model reveals supply chains may only be able to pursue SCI as fast as the slowest learner in the chain. Research has shown new knowledge is better institutionalized with inter-organizational collaboration, also known as "intertwining" (Jones & Macpherson, 2006; p.168). Thus, adoption or change of required *Content* or *Conduct*, for example, can be blocked unless all supply chain partners intertwine, come to know and share beliefs and goals, and are committed to take the actions necessary to pursue SCI by consistently matching *Content* and *Conduct* (Stata, 1989). Overall, this study contributes to inter-organizational, or supply chain, learning theory because the SCI process model operationalizes how firms and supply chain partners might approach the learning challenge through shared knowledge and action.

Thus, the SCI learning process can be viewed as an evolutionary process of development or change that occurs over time at the inter-organizational level of analysis (Argote & Miron-Spektor, 2011; Van de Ven & Poole, 1995). Successful firms and SC partners develop and maintain SCI equilibrium over time but must also be able to initiate and implement change when their environments change (Tushman et al., 1986). This pattern of organizational evolution is referred to as punctuated equilibrium. To pursue integrity, firms and their SC partners may have to alter their systems, strategies, and structures through short, discontinuous bursts of change (Romanelli & Tushman, 1994). For example, in our sample, the firms and their SC partners not only adapted to changing stakeholder expectations over time, but also quickly adapted to drastic changes in the environment caused by the COVID-19 pandemic. During the pandemic, firms worked with suppliers and third-party vendors to ensure the well-being of their entire workforce, their service providers, their communities and those they serve worldwide.

This research also has managerial implications. The SCI model offers firms and managers an approach to better align values with culture across the supply chain. For example, should a firm and its supply chain partners choose to do no harm, and operate a truly sustainable supply chain, the SCI model provides a process to help them make the transition from unsustainable to sustainable. Additionally, the model encourages supply chain managers to seek and implement best practices that align stated values and culture. It also provides a process for supply chain managers to evaluate current practice against existing values and make requisite changes to align values and practice. Finally, in light of recent global events, such as climate change impacts, pandemic, and social justice movements, the SCI model provides a framework for supply chains to assess and develop a response to ongoing issues, with integrity, to achieve ethical and responsible outcomes.

More specifically, recent global events have caused firms to make public statements about their positions on these important topics. For example, firms have announced concrete changes they will make to fight racism, often setting explicit goals and timeframes for goal achievement (Friedman, 2020). However, it is not yet clear how these firms will address this issue across their supply chains, or how these policies and practices will affect communities in which their supply chains operate. The SCI model could be used as a tool to help leaders create necessary change to align values and supporting statements with culture, while influencing and affecting stakeholders across the supply chain. Thus, a firm stating its intent to pursue racial equality could use the SCI process model to inform their efforts in this area, not as a tradeoff with other programs and initiatives, but as a necessary alignment of values and culture, to pursue integrity and help achieve true sustainability throughout the supply chain.

Limitations and Future Research

No study is without limitations. We recognize the potential for biased data, as the data were primarily drawn from the firms' customer-facing information. In fact, we found very little data that contained negative sentiment. For example, in the original data pull, we were unable to find or code any passages for the firms' responses to negative consequences associated with adverse events to analyze *Coherence*. Therefore, we searched for more data, and downloaded 17 documents from the firms' websites related to their response to the COVID-19 pandemic. These data provided empirical examples of firms' and their supply chain partners' response to an adverse situation. Furthermore, we understand the customer-facing data may imitate the social desirability of survey or interview data normally associated with participants' responses related to ethics or integrity issues (Randall & Fernandes, 1991). However, the purpose of the analysis was not to determine whether or not a specific firm or their supply chain partners displayed SCI. Rather, the purpose was to empirically ground the SCI concept in empirical data. Firms with good reputations as identified by consumers were purposefully selected in order to provide adequate representation of the data we were attempting to capture. However, to address the issues associated with potentially biased data, we recommend researchers conduct action research focused on implementing the SCI process (Pagell & Shevchenko, 2014). Instead of interviewing or surveying managers on their current SCI, researchers could work closely with managers to conduct change efforts related to SCI, helping them align values with practice. Research of this type would corroborate the findings of the current research, and perhaps help managers develop and maintain truly sustainable supply chains.

We also acknowledge the limitations associated with the sample of six firms. First, we did not explore the process nuances between retailers and manufacturers. Castillo et al. (2018) found some differences between supply chain echelons, but we were not looking for differences between the echelons in this research because of our process focus. Still, how firms enact the SCI process might be different across supply chain echelons, and future research may be able to reveal such differences. Additionally, the firms were relatively large, with well-established supply chains and processes, perhaps limiting the applicability of our findings to other types of organizations. Future case study research that assesses the efficacy of the model for developing and maintaining SCI in smaller organizations, or organizations not in a power position within the supply chain, would certainly be impactful. Specifically, how do smaller suppliers, who are often at the mercy of decisions of larger customers,

develop and maintain SCI, particularly if the larger company is operating under questionable practices?

Additionally, punctuated equilibrium provides a theoretical explanation for how firms will evolve. Specifically, firms evolve through relatively long periods of stability in patterns of activity, sparked by short periods of fundamental change (Romanelli & Tushman, 1994). Thus, we recommend future research empirically evaluate what activates firms to develop and maintain an SCI approach with supply chain partners. For instance, how do stakeholder expectations, poor supplier performance, changing regulatory environments, or major global events affect the SCI process? Answers to these questions would help us understand the forces behind firms' SCI.

This research also advances the SCI concept from a variance theory toward a process theory. Future research should therefore implement a longitudinal perspective to deepen and confirm the dimensionality of the SCI process proposed in the current research. This approach could consist of case studies with firms at different tiers of the supply chain using both primary and secondary data collection efforts. In doing so, scholars can explore what changes over time with regards

to developing, changing, and maintaining SCI and why. Such an effort could reveal multilevel explanations of SCI and further nuance.

Scholars argue that integrity may be the biggest asset a firm may have (Koehn, 2005; Maak, 2008). The empirical findings from this study extend this argument and demonstrate business leaders must also build and maintain cultures of integrity across their supply chains (Castillo et al., 2018). This is particularly important in today's world, where business leaders must consider all stakeholders, and address important stakeholder-driven issues such as supply chain sustainability, resilience, and security, which are now at the forefront in the ever-changing environment (Richey & Davis-Sramek, 2020).

Appendix A

See Tables 5, 6, and 7.

Table 5 SCI moral themes

Theme	Lower-level theme	Example passages	Source
Commitment	Focus on customer	R1: “Our mission is to be Earth’s most customer-centric organization”	Mission statement
	Meeting relevant needs	M2: “Our critical contribution lies in continuing to invest in discovery and development of lifesaving treatments to address the world’s most intractable health challenges”	Policy statement
	Providing value	M1: “... , we are dedicated to supplying products of the highest quality, yet at a reasonable price for worldwide customer satisfaction”	Mission statement
	Pursuing social responsibility	R2: “...to treating members, employees, and vendors with courtesy and respect; and to working closely with suppliers to promote fairness, dignity, and safety throughout our supply chains”	Annual report
	Maintaining environmental stewardship	R3: “Together with our vendors, national partners, employees and customers, we’ll continue to take steps to improve our recycling programs,...”	Sustainability report
	Stakeholder engagement	M2: “We seek to provide solutions for some of the world’s most pressing global public health challenges and work collectively—within our walls and externally with partners—to advance better health for all”	Sustainability report
	Global focus	M1: “Maintaining a global viewpoint, we are dedicated to supplying products of the highest quality, yet at a reasonable price for worldwide customer satisfaction”	Mission statement
Content	Dedication to ethics (in general)	R3: “Conduct ourselves and our business in an ethical way that not only complies with all regulations, but also protects and builds our reputation as a responsible business”	Sustainability report
	Dedication to societal norms (laws, regulations, etc.)	M1: “Compliance with the Law—We shall comply with the laws and ordinances of all countries and regions” R2: “Expects our suppliers to comply, at a minimum, with the applicable labor and environmental laws and regulations of the country where the merchandise is produced”	Sustainability report Policy statement
	Adjust to changing norms	M1: “Society’s expectations toward M1 continue to evolve with the times”	Sustainability report

Table 5 (continued)

Theme	Lower-level theme	Example passages	Source
	Participate in international, industry, and multilateral groups	R1: “To ensure that our policies and programs incorporate internationally recognized human rights standards, we conduct formal benchmarking with industry and multilateral groups to design, operate, and continually improve our risk assessment and audit program”	Policy statement
		R2: “In order to align with international standards, it is derived from the policies, standards, and conventions of the United Nations (UN) and the International Labor Organization (ILO), as well as other leading independent standards such as the Responsible Business Alliance (RBA) and Worldwide Responsible Accredited Production (WRAP)”	Policy statement
	Social responsibility	R1: “Safe and inclusive workplaces in our operations and throughout our supply chain”	Website content
		R2: “Take care of our members. Take care of our employees. Respect our suppliers”	Code of ethics
		M2: “M2 is committed to ensuring that it conducts its business worldwide with respect for human rights”	Policy statement
	Environmental stewardship	M1: “Environmental Management—We shall promote a wide range of environmental initiatives, while complying with the laws and ordinances of each country and region. Each company shall also establish a company-wide environmental management system (EMS), and continuously monitor and improve”	Supplier guidelines
		M2: “Encouraging our suppliers to make environmental improvements in their own businesses and respective supply chains”	Sustainability report
		R3: “Minimize our contributions to climate change (across our value chain) and manage its impact on our business through efficient use of energy and GHG emissions reduction”	Sustainability report
	Responsible sourcing	R2: “R2 and some of its produce suppliers continue to support a program with Fair Trade USA, which directly engages with farmworkers to promote sustainable incomes, safe working conditions, environmental stewardship, and strong, transparent supply chains”	Policy statement
	Sustainable products	R3: “Offer and promote products with superior environmental and health profiles compared to traditional products”	Sustainability report
	Stakeholder focus	R3: “Our corporate responsibility strategy is shaped by our key stakeholders and focused on what’s most material to our business”	Website content

Table 5 (continued)

Theme	Lower-level theme	Example passages	Source
Coherence	Proactive adherence to guiding principles	R1: “An R1 engineer tasked with helping companies like [Toy Maker] re-invent packaging says what the toy maker has accomplished isn’t eas—but it is a win on multiple fronts. “It’s difficult to change packaging,” said R1’s [Engineer]. “It takes a collective effort to design packaging that ultimately is great for the planet and customers love. I think this is really a re-imagining of what the role of packaging is in a changing retail environment”	Website content
		M1: “M1 has been manufacturing products in the U.S. for 40 years and we have robust business continuity plans in place to protect our team members, mitigate disruptions and meet customer demands”	News release
	Response to adversity or negative consequences	R3: “We have implemented additional efforts to protect the safety and well-being of our associates and customers” These include special payment; temporary hourly wage increase; emergency paid leave; extended paid leave for high risk personnel; social distancing ambassadors; updates to store layouts; reduced store hours; provide PPE; curbside/delivery”	News release
		M2: “Where possible, we are working with our suppliers and third-party vendors who provide services to us to adapt their working arrangements as well. We are continuously reassessing our policies consistent with health authority guidance and in support of the well-being of our entire workforce, our service providers, our communities and those we serve worldwide”	News release

Appendix B

Table 6 SCI structural themes

Theme	Lower-level theme	Example passages	Source	
Context	Selection	M2: “We strive to work with suppliers who share our values and commitment to operating responsibly and ethically”	Sustainability report	
		Communication	M1: “Compliance of Guidelines—Suppliers are expected to comply with these guidelines along with their “Regional Purchasing Agreement”, applying these principles within their own company”	Supplier guidelines
			R2: “Communications were sent to the Company’s direct suppliers describing the compliance requirements and requesting conflict minerals information”	Conflict minerals report
	Collaboration	M3: “M3 has thousands of suppliers around the world. The Company’s Supplier Guiding Principles ensure consistency across our operations with regards to upholding uniformly high standards of quality and service”	Supplier guidelines	
		M2: “The success of our business depends on our ability to collaborate with suppliers that not only provide the highest quality products and services, but are philosophically and strategically aligned with our commitment to our social and environmental responsibilities”	Policy statement	
		R3: “In 2016, we conducted a materiality assessment to prioritize our most significant sustainability topics based on multi-stakeholder feedback. This process was conducted by a third-party and included interviews with R3’s executives and industry research on sustainability topics that are important to peers, suppliers, NGOs, governments, shareholders, associates, consumers, local communities and industry associations. These groups represent voices across our value chain”	Sustainability report	
	Coordination	R2: “By signing R2’s supplier agreement, the supplier warrants compliance with the Code, including by its sub-suppliers. We may acknowledge and accept a supplier’s code as equivalent to our Code”	Disclosure statement	
		M3: “This Packaging Standard covers the minimum requirements of Quality & Hygiene Management Systems and Process control. It is mandatory for all Packaging Suppliers to M3 sites and Affiliates globally. All packaging suppliers must meet a minimum of 50% compliance in each of the sections and have an overall compliance score of 75% to be considered for approval”	Supplier manual	

Table 6 (continued)

Theme	Lower-level theme	Example passages	Source
Conduct (Preventive Practices)	Training & development	R1: “R1 employees who manage our manufacturing supply chain receive training on our Supplier Code of Conduct (“Supplier Code”) and audit requirements. R1 also has a training program for our manufacturers on our Supplier Code and supply chain standards”	Policy statement
		M1: “Expanding supplier engagement through our Sustainable Procurement Program (SPP) to support suppliers in achieving excellence by embedding sustainable social and environmental practices, including transparency, target setting and public disclosure, into their businesses and respective supply chains”	Sustainability report
	Screening, audits, and assessments	M2: “Supplier selection and prioritization criteria include results of EcoVadis scores on Labor and Business Ethics, location in a country considered high risk for violation of human rights, and the supplier category”	Sustainability report
		M3: “Materiality Assessment—In 2016, we administered an animal welfare risk assessment with all United States meat suppliers to evaluate adherence to animal welfare best practices. These suppliers make up more than 90 percent of the meat M3 purchases annually”	Sustainability report
		M3: “Audit frequencies are dictated based on material risk”	Supplier manual
	Transparency	R2: “All Facilities engaged in the production of Merchandise sold to R2 are required to be disclosed to and approved by R2. The failure to do so is considered Unauthorized Subcontracting”	Supplier code of conduct
		M2: “Suppliers to M2 are expected to make reasonable efforts to publicly disclose topics and goals that are important to the organization’s impact on the environment and social issues (e.g., on a website or publicly available report)”	Supplier manual
		R3: “Vendors must maintain all documents to demonstrate compliance with this Code of Conduct and make those documents available to R3 upon request”	Sustainability report
	Continuous improvement	R3: “The board continuously reviews our corporate governance practices and aims to improve and build on them to serve the long-term interests of R3’s and our stakeholders”	Sustainability report

Table 6 (continued)

Theme	Lower-level theme	Example passages	Source
Conduct (Restorative Practices)	Accountability measures	M3: “When M3 becomes aware of any actions or conditions not in compliance with these Supplier Guiding Principles, such actions or conditions will be reviewed, and appropriate corrective measures will be implemented”	Supplier guidelines
		R3: “If suppliers are unable to redirect sourcing, the product is shifted to alternate suppliers”	Sustainability report
		R2: “Illegal or excessive disciplinary actions or monetary fines are prohibited”	Supplier code of conduct
		M2: “When an instance of nonconformance is verified, we take specific actions depending on where a producer falls in our supply chain and the amount of commercial influence we may have”	Supplier standards
	Verification/due diligence	R1: “If an audit of your facility uncovers issues, R1 may conduct announced or unannounced onsite verifications or request additional documentation to track your remediation efforts”	Supplier manual
		M2: “M2 Procurement will follow-up on any data that appear or is proven to be misleading”	Supplier guidelines
	Training and development	R3: “Factories with high risk findings are required to attend a mandatory workshop conducted by R3’s where vendors are provided with industry best practices and tools to help address any issues”	Sustainability report
Consistency	Evidence of compliance	R1: “For 2018 we identified no suppliers that were sourcing minerals through a supply chain that benefitted armed groups in the Democratic Republic of the Congo region”	Website content
		M3: “In the current reporting cycle, M3 did not receive any significant fines or sanctions for non-compliance with environmental laws and regulations”	Sustainability report
		R3: “In 2013, we worked with factories to complete more than 1,300 corrective actions. Three audits had findings that resulted in a denial of business”	Sustainability report

Table 6 (continued)

Theme	Lower-level theme	Example passages	Source
	Goal progress/accomplishment	R2: “R2 has a [policy] that asks suppliers to phase out gestation crates for pregnant sows in favor of group housing. The goal is a complete transition by 2022. Approximately 80% of R2’s U.S. suppliers have completed this process, and many more will finish ahead of this target date”	Website content
		M2: “We continue working toward our [program] 2020 Goal— to enroll supplies covering 80% of our spend in our Sustainable Procurement Program (SPP). In 2018, we achieved our annual target of enrolling 61% of spend in our SPP”	Sustainability report
	Impact	M3: “Together, we’re assisting 2,000 small-holder coffee farmers in Honduras by delivering training and resources to help them increase their yields and income so they can better nourish their families for years to come. To date, farmers in this program achieved incremental income, coffee yield increases and greater yield quality”	Sustainability report

Appendix C

Table 7 Moral/structural theme—continuity

Temporal condition	Theme	Example passage	Source
Past behavior	Moral Commitment	M2: “We have been caring for people since [year]”	Sustainability report
	Moral Content	M1: “These [green purchasing] Guidelines have been revised and updated according to social needs since the first edition in 2001”	Supplier guidelines
	Moral Coherence	M2: “The people of M2 are about changing the trajectory of health for humanity. We started this long before the word “citizenship” was fashionable”	Website content
	Structural Context	R3: “Since 2000, we’ve partnered with our suppliers to support the protection and conservation of forests”	Sustainability report
	Structural Conduct	M2: “We have had a well-established EHS audit program in place since 2006”	Sustainability report
	Structural Consistency	M2: “Our commitment to Supplier Diversity led us to establish a formal Office of Supplier Diversity in 1998 in addition to our ongoing active outreach program”	Website content
Current behavior	Moral Commitment; Moral Coherence	M2: “The people of M2 are about changing the trajectory of health for humanity. We started this long before the word “citizenship” was fashionable”	Website content
	Moral Content	R3: “We update our conflict mineral compliance program and SEC reporting (Form SD) in alignment with due diligence guidance from the Organization for Co-operation and Economic Development (OECD)”	Sustainability report
	Structural Context	R3: “...continuously improve its engagement with supply chain partners to ensure requirements are understood and acted upon in a reasonable timeframe”	Policy statement
	Structural Conduct	R3: “R3’s implemented our first [wood policy] in 2000 and, since then, we have continued to work with employees and suppliers to safeguard valuable forest resources”	Policy statement
	Structural Consistency	R3: “We also created a new wood sourcing application in the U.S. in 2018, enabling our vendors to easily update all wood sourcing specifications, including certification that they source from well-managed, non-endangered forests, wood location, species, sustainable forest certifications and product dimensions. R3 Canada is working to implement a process that enables vendors to provide their wood sourcing specifications”	Sustainability report

Funding The authors did not receive support from any organization for the submitted work. No funding was received to assist with the preparation of this manuscript. No funding was received for conducting this study. No funds, grants, or other support was received.

Declarations

Conflicts of interest The authors have no relevant financial or non-financial interests to disclose. The authors have no conflicts of interest to declare that are relevant to the content of this article. All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript. The authors have no financial or proprietary interests in any material discussed in this article.

References

- Argyris, C. (1994). *On organizational learning*. Blackwell Publishers Inc.
- Argote, L., & Miron-Spektor, E. (2011). Organizational learning: From experience to knowledge. *Organizational Science*, 22(5), 1123–1137.
- Audi, R., & Murphy, P. E. (2006). The many faces of integrity. *Business Ethics Quarterly*, 16(1), 3–21.
- Barratt, M., Choi, T. Y., & Li, M. (2011). Qualitative case studies in operations management: Trends, research outcomes, and future research opportunities”. *Journal of Operations Management*, 29(4), 329–342.
- BBC News. (2020). Boohoo to investigate Leicester supplier over exploitation claims. Retrieved from <https://www.bbc.com/news/business-53305006>.
- Becker, G. K. (2009). Integrity as moral ideal and business benchmark. *Journal of International Business Ethics*, 2(2), 70–84.
- Boohoo group plc. (2020). Sustainability. Retrieved from <https://www.boohoopl.com/sustainability>.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. SAGE Publications Inc.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brockhaus, S., Kersten, W., & Knemeyer, A. M. (2013). Where do we go from here? Progressing sustainability implementation efforts across supply chains. *Journal of Business Logistics*, 34(2), 167–182.
- Brown, M. T. (2005). *Corporate Integrity*. Cambridge University Press.
- Brown, M. T. (2006). Corporate integrity and public interest: A relational approach to business ethics and leadership. *Journal of Business Ethics*, 66(1), 11–18.
- Brown, M. T. (2014). Corporate identity and citizenship. In R. C. Chandler (Ed.), *Business and corporate integrity: Sustaining organizational compliance, ethics, and trust (Volume 1: Perspectives)*. Praeger.
- Busse, C., Schleper, M. C., Niu, M., & Wagner, S. M. (2016). Supplier development for sustainability: Contextual barriers in global supply chains. *International Journal of Physical Distribution & Logistics Management*, 46(5), 442–468.
- Bussmann, K. D., & Niemeczek, A. (2019). Compliance through company culture and values: An international study based on the example of corruption prevention. *Journal of Business Ethics*, 157(3), 797–811.
- Calhoun, C. (1995). Standing for something. *Journal of Philosophy*, 92(5), 235–260.
- Castillo, V. E., Mollenkopf, D. A., Bell, J. E., & Bozdogan, H. (2018). Supply chain integrity: A key to sustainable supply chain management. *Journal of Business Logistics*, 39(1), 38–56.
- Center for Policy and Dialogue (CPD) Bangladesh. (2013). 100 Days of Rana Plaza tragedy. Retrieved from <https://cpd.org.bd/wp-content/uploads/2013/08/100-Days-of-Rana-Plaza-Tragedy-A-Report-on-Commitments-and-Delivery.pdf>.
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). SAGE Publications Inc.
- Chun, R. (2019). How virtuous global firms say they are: A content analysis of ethical values. *Journal of Business Ethics*, 155(1), 57–73.
- Ciccullo, F., Pero, M., Caridi, M., Gosling, J., & Purvis, L. (2018). Integrating the environmental and social sustainability pillars into the lean and agile supply chain management paradigms: A literature review and future research directions. *Journal of Cleaner Production*, 172, 2336–2350.
- Cosgrove, E. (2020). Will sustainability take a back seat to COVID-19 challenges? Retrieved from <https://www.supplychaindive.com/news/coronavirus-sustainability-challenges-Danon-Loreal-Unilever/581308/>.
- Council of Supply Chain Management Professionals. (CSCMP; 2020). CSCMP supply chain management definitions and glossary. Retrieved from https://cscmp.org/CSCMP/Educate/SCM_Definitions_and_Glossary_of_Terms.aspx.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications Inc.
- de los Reyes Jr, G., Scholz, M., & Smith, N.C. (2017). Beyond the “Win-Win” creating shared value requires ethical frameworks. *California Management Review*, 59(2), 142–167.
- Dodd, C. H., & Dodd, M. J. (2014). The application of integrity to ethics. In R. C. Chandler (Ed.), *Business and corporate integrity: Sustaining organizational compliance, ethics, and trust (Volume 1: Perspectives)*. Praeger.
- Dowell, E., & Jackson, M. (2020). “Woke-washing” your company won’t cut it. Retrieved from <https://hbr.org/2020/07/woke-washing-your-company-wont-cut-it>.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32.
- Elkington, J. (2018). 25 years ago I coined the phrase “triple bottom line”. Here’s why it’s time to rethink it. *Harvard Business Review*, 25, 2–5.
- Esper, T. L., Ellinger, A. E., Stank, T. P., Flint, D. J., & Moon, M. (2010). Demand and supply integration: A conceptual framework of value creation through knowledge management. *Journal of the Academy of Marketing Science*, 38(1), 5–18.
- Ferrell, L., & Ferrell, O. C. (2014). Examining organizational integrity failures. In R. C. Chandler (Ed.), *Business and corporate integrity: Sustaining organizational compliance, ethics, and trust (Volume 1: Perspectives)*. Praeger.
- Ferrell, O. C., Rogers, M. M., Ferrell, L., & Sawayda, J. (2013). A framework for understanding ethical supply chain decision making. *Journal of Marketing Channels*, 20(3–4), 260–287.
- Fleury, A., & Fleury, M. T. (2007). The evolution of production systems and conceptual frameworks. *Journal of Manufacturing Technology Management*, 18(8), 949–965.
- Friedman, G. (2020). Here’s what companies are promising to do to fight racism. *The New York Times*, Retrieved from <https://www.nytimes.com/article/companies-racism-george-floyd-protests.html>.
- Garwin, D. A. (1993). Building a learning organization. *Harvard Business Review*, 71(4), 73–91.

- Goldsby, T. J., Griffis, S. E., & Roath, A. S. (2006). Modeling lean, agile, and leagile supply chain strategies. *Journal of Business Logistics*, 27(1), 57–80.
- Jacobs, B. W., & Singhal, V. R. (2017). The effect of the Rana Plaza disaster on shareholder wealth of retailers: Implications for sourcing strategies and supply chain governance. *Journal of Operations Management*, 49, 52–66.
- Jones, O., & Macpherson, A. (2006). Inter-organizational learning and strategic renewal in SMEs: Extending the 4I framework. *Long Range Planning*, 39(2), 155–175.
- Jose, A., & Lee, S. M. (2007). Environmental reporting of global corporations: A content analysis based on website disclosures. *Journal of Business Ethics*, 72(4), 307–321.
- Kaufmann, L., & Denk, N. (2011). How to demonstrate rigor when presenting grounded theory research in the supply chain management literature. *Journal of Supply Chain Management*, 47(4), 64–72.
- Kennedy-Glans, D., & Schulz, B. (2005). *Corporate integrity: A toolkit for managing beyond compliance*. Wiley.
- Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, 32(5), 232–240.
- Kim, S., Wagner, S. M., & Colicchia, C. (2019). The impact of supplier sustainability risk on shareholder value. *Journal of Supply Chain Management*, 55(1), 71–87.
- Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation implementation. *Academy of Management Review*, 21(4), 1055–1080.
- Kleindorfer, P. R., Singhal, K., & Van Wassenhove, L. N. (2005). Sustainable operations management. *Production and Operations Management*, 14(4), 482–492.
- Koehn, D. (2005). Integrity as a business asset. *Journal of Business Ethics*, 58(1–3), 125–136.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691–710.
- Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43(3), 253–261.
- Li, F., Zhang, S., & Yang, X. (2018). Moral integrity and relationship commitment: An empirical examination in a cross-cultural setting. *Journal of Business Ethics*, 151(3), 785–798.
- Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation*, 1986(30), 73–84.
- Maak, T. (2008). Undivided corporate responsibility: Towards a theory of corporate integrity. *Journal of Business Ethics*, 82, 353–368.
- Marshall, D., Metters, R., & Pagell, M. (2016). Changing a leopard's spots: A new research direction for organizational culture in the operations management field. *Production and Operations Management*, 25(9), 1506–1512.
- Maurer, V. G. (2009). Corporate social responsibility and the “Divided Corporate Self”: The case of Chiquita in Colombia. *Journal of Business Ethics*, 88, 595–603.
- Mayer, D.M., Ong, M. Sonenshein, S., & Ashford, S.J. (2019). To get companies to take action on social issues, emphasize morals, not the business case. Retrieved from <https://hbr.org/2019/02/to-get-companies-to-take-action-on-social-issues-emphasize-morals-not-the-business-case>.
- McCutcheon, D. M., & Meredith, J. (1993). Conducting case study research in operations management. *Journal of Operations Management*, 11, 239–256.
- McFall, L. (1987). Integrity. *Ethics*, 98(1), 5–20.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2), 1–25.
- Meredith, J. (1998). Building operations management theory through case and field research. *Journal of Operations Management*, 16, 441–454.
- Meredith, J., Raturi, A., Amoako-Gyampah, K., & Kaplan, B. (1989). Alternative research paradigms in operations. *Journal of Operations Management*, 8(4), 297–326.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE Publications Inc.
- Mohr, L. B. (1982). Approaches to explanation: Variance theory and process theory. *Explaining Organizational Behavior*, 2, 35–70.
- Mollenkopf, D. A., Ozanne, L. K., & Stolze, H. J. (2021). A transformative supply chain response to COVID-19. *Journal of Service Management*, 32(2), 190–202.
- Montabon, F., Pagell, M., & Wu, Z. (2016). Making sustainability sustainable. *Journal of Supply Chain Management*, 52(2), 11–27.
- Pagell, M., & Shevchenko, A. (2014). Why research in sustainable supply chain management should have no future. *Journal of Supply Chain Management*, 50(1), 44–55.
- Pagell, M., & Wu, Z. (2009). Building a more complete theory of sustainable supply chain management using case studies of 10 exemplars. *Journal of Supply Chain Management*, 45(2), 37–56.
- Paine, L. S. (1994). Managing for organizational integrity. *Harvard Business Review*, 72(2), 106–117.
- Palanski, M. E., & Yammarino, F. J. (2007). Integrity and leadership: Clearing the conceptual confusion. *European Management Journal*, 25(3), 171–184.
- Patagonia. (2020). 1% for the planet. Retrieved from <https://www.patagonia.com/one-percent-for-the-planet.html>.
- Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work*, 1(3), 261–283.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). SAGE Publications Inc.
- Porter, M., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review*, 89(1/2), 62–77.
- Randall, D. M., & Fernandes, M. F. (1991). The social desirability response bias in ethics research. *Journal of Business Ethics*, 10(11), 805–817.
- Randall, W. S., Pohlen, T. L., & Hanna, J. B. (2010). Evolving a theory of performance-based logistics using insights from service dominant logic. *Journal of Business Logistics*, 31(2), 35–61.
- Richey, R. G., & Davis-Sramek, B. (2020). Supply chain management and logistics: An editorial approach for a new era. *Journal of Business Logistics*, 41(2), 90–93.
- Roberts, S. (2003). Supply chain specific? Understanding the patchy success of ethical sourcing initiatives. *Journal of Business Ethics*, 44(2–3), 159–170.
- Romanelli, E., & Tushman, M. L. (1994). Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, 37(5), 1141–1166.
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications Inc.
- Shevchenko, A., Lévesque, M., & Pagell, M. (2016). Why firms delay reaching true sustainability. *Journal of Management Studies*, 53(5), 911–935.
- Silvestre, B. S., Silva, M. E., Cormack, A., & Thome, A. M. T. (2020). Supply chain sustainability trajectories: Learning through sustainability initiatives. *International Journal of Operations & Production Management*, 40(9), 1301–1337.
- Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. *Journal of the Academy of Marketing Sciences*, 25(4), 305–318.
- Solomon, R. C. (1992). Corporate roles, personal virtues: An Aristotelean approach to business ethics. *Business Ethics Quarterly*, 2(3), 317–339.
- Stata, R. (1989). Organizational learning: The key to management innovation. *Sloan Management Review*, 30(3), 63–74.

- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*. SAGE Publications Inc.
- Sull, D., Turconi, S., & Sull, C. (2020). When it comes to culture, does your company walk the talk? *MIT Sloan Management Review*, 61(4), 1–11.
- Tangpong, C. (2011). Content analytic approach to measuring constructs in operations and supply chain management. *Journal of Operations Management*, 29, 627–638.
- The Harris Poll. (2019). The 100 most visible companies. Retrieved from https://theharrispoll.com/HarrisPoll_Axios_MostVisible_2019.pdf.
- Trevino, L. K., Weaver, G. R., Gibson, D. G., & Toffler, B. L. (1999). Managing ethics and legal compliance: What works and what hurts. *California Management Review*, 41(2), 131–151.
- Tushman, M. L., Newman, W. H., & Romanelli, E. (1986). Convergence and upheaval: Managing the unsteady pace of organizational evolution. *California Management Review*, 29(1), 29–44.
- Van de Ven, A. H. (2013). Process theories of change. In E. H. Kessler (Ed.), *Encyclopedia of management theory* (pp. 611–616). SAGE Publications Inc.
- Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3), 510–540.
- Windscheid, L., Bowes-Sperry, L., Jonsen, K., & Morner, M. (2018). Managing organizational gender diversity images: A content analysis of German corporate websites. *Journal of Business Ethics*, 152(4), 997–1013.
- Wu, Z., & Pagell, M. (2011). Balancing priorities: Decision-making in sustainable supply chain management. *Journal of Operations Management*, 29(6), 577–590.
- Yawar, S. A., & Seuring, S. (2017). Management of social issues in supply chains: A literature review exploring social issues, actions and performance outcomes. *Journal of Business Ethics*, 141(3), 621–643.
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). SAGE Publications Inc.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.