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The dark side of B2B relationships in GVCs – Micro-foundational influences and strategic governance tools

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ABSTRACT

Global value chains (GVCs) consist of "a large number of parts that interact in a non-simple way" (Simon, 1962: 468), and their governance is fraught with human behavioral challenges. Multinational enterprise (MNE) decision makers are cognizant of the complexity and challenges, and lead firms in GVCs attempt to address them with appropriate governance. Were that not the case, we would see more *dark side outcomes of B2B relationships in GVCs*. We use the New Internalization Theory (NIT) to explain and predict the governance choices made by lead MNEs and their GVC partners. Specifically, we take a micro-foundational perspective that builds upon the concepts of bounded rationality and bounded reliability. We point to three broad, non-mutually exclusive categories of governance tools – formal safeguards, relational tools, and entrepreneurship-oriented mechanisms – that can prevent, or at least mitigate, dark side outcomes. We illustrate with data from nine case studies of international GVCs.

1. Introduction

Trade liberalization and technological innovation, amongst other factors, have increased the geographic reach and disaggregation of the global value chains (GVCs) of multinational enterprises (MNEs) (Buckley & Strange, 2015; Gereffi, 1994; Humphrey, 1995; Narula, 2014). In light of the trend towards increasingly geographically dispersed, finer sliced, and more organizationally fragmented GVCs (Gereffi, 2001; Gooris & Peeters, 2016), the literature addresses how firms can best exploit and augment firm-specific and country-specific advantages through *structural and strategic governance* decisions[1] (Kano, Tsang, & Heung, 2020; e.g., Antràs & Chor, 2013; Buckley, 2009a; Coe & Yeung, 2015, 2019; Gereffi & Korzeniewicz, 1994; Gereffi, Humphrey, & Sturgeon, 2005; Grossman & Rossi-Hansberg, 2008; Johnson & Noguera, 2012; Humphrey & Schmitz, 2002; Kano, 2018; Mudambi, 2008). In their multi-disciplinary review of the GVC literature, Kano et al. (2020) point to macro-environmental (institutional) and micro-foundational (behavioral) influences on governance decisions. They observe that "micro-foundational assumptions are frequently made, [but] they are rarely articulated or examined empirically" (2020, p. 39).

Internalization theory has long been the mainstream theory of the MNE (Anderson & Gatignon, 1986; Buckley & Casson, 1976; Hennart,

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[1] In its simplest form, structural governance can be described by an organizational or inter-organizational chart, showing who is responsible for which types of decisions. Strategic governance reflects more fine-grained processes that are put in place within a given governance structure, see also endnote 2.

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1982, 1986; Rugman, 1981). Its latest version, new internalization theory (NIT), offers important insights based on micro-foundational considerations[2] on how to govern GVCs (e.g., Benito, Petersen, & Welch, 2009; Buckley, 2009a, 2009b, 2011; Grøgaard & Verbeke, 2012; Hennart, 2009; Rugman & Verbeke, 1992, 2003, 2004; Verbeke, 2003). NIT research looks at the governance choices made by MNEs to coordinate and control value chains facing exogenous (macro-level) and micro-foundational challenges. The micro-foundational challenges arise from human frailty, that is, the limits of our intellect, i.e. bounded rationality, and imperfect efforts to fulfil commitments, i.e. bounded reliability[3] (Kano & Verbeke, 2015; Kano et al., 2020; Kano & Oh, 2020; Verbeke & Greidanus, 2009). If not prevented or remediated, micro-foundational challenges will lead to dysfunctional outcomes, which are the *dark side of B2B relationships*. We investigate the governance tools – formal safeguards, relational tools, and entrepreneurship-oriented mechanisms — MNEs use to avoid the dark side.

A brief overview of the GVC, internalization theory, and NIT literatures follows, throwing light on the governance tools managers can use to handle bounded rationality and bounded reliability. We then discuss our methodology which is to look at the GVCs of nine MNEs and describe the micro-foundational challenges they faced and the governance tools they used to respond to them. We conclude with potential future areas of research.

2. Literature review

2.1. Global value chains

The GVC-level of analysis is generally seen as an appropriate one to study cross-border economic transactions and their impact at the micro-level. Prior research has considered global commodity chains in labor-intensive and high-tech industries (e.g., Gereffi & Korzeniewicz, 1994; Gereffi, 1994) as well as global production networks (Kano et al., 2020). At the turn of the millennium, these diverse streams coalesced into the study of the GVCs of lead MNEs. The rather limited theoretical component of the GVC literature has focused for the most part on developing a typology of inter-firm *governance structures* based on buyer–seller power asymmetries (Humphrey & Schmitz, 2002; Gereffi et al., 2005), leaving the micro-foundational challenges GVCs face unaddressed (Coe & Yeung, 2015; Kano et al., 2020).

Economic geographers also focus on how firms structure their GVCs, emphasizing value creation, power, and dual embeddedness in the local environment and in the multinational network (Coe & Yeung, 2015; Fuller & Phelps, 2018). Again, the relationship between micro-foundational challenges and MNE strategic governance decisions receives little attention. Kano and Oh (2020, p. 4) call for research addressing "how lead-firm managers make decisions under high uncertainty, manage relationships within and outside of the network, and implement safeguards to secure commitments at multiple levels. We need to explicate behavioral assumptions, test these assumptions, and establish links between micro-level behavior, exogenous circumstances, and GVC-level outcomes."

Lead-MNEs must not only determine how to fine-slice and then potentially outsource and offshore GVC activities to achieve cost efficiency, but must also assess how transactions under various governance modes are vulnerable to human commitment failures, and how they can be governed to capitalize on opportunities for innovation in the light of such vulnerabilities. GVC research outside international business seldom discusses post-contract problems caused by bounded rationality (Harrison & March 1984) and bounded reliability (Kano & Verbeke, 2015), nor are strategies used to deal with them discussed (Kano & Oh, 2020). Indeed, GVC research offers limited insight into the micro-level foundations of commitment failures and innovation opportunities and the strategies used to orchestrate GVC activities and augment its stock of knowledge (Buckley, Craig, & Mudambi, 2019; Yeung & Coe, 2015).

2.2. Internalization theory and new internalization theory (NIT)

Internalization theory "is an evolving theoretical framework used mainly to determine the most effective and efficient governance form for a set of specific transactions conducted by the MNE, within a broader economic and institutional context" (Verbeke & Kenworthy, 2008, p. 944).[4] Internalization theory scholars have studied the choice between organizing international interdependences within the firm (through foreign direct investment) or organizing them in markets (e.g. through exports and licensing)[5] (Hennart, 1982), and have identified the factors

[2] This paper focuses on strategic governance and not corporate governance. While the latter often concentrates on interactions among the shareholders, board of directors, and the C-Suite, the former looks into "the distinctive ways that things are accomplished within the enterprise" (Teece, Pisano, and Shuen, 1997: p. 528). The distinction made between structural and strategic governance design should also be made clear. With strategic governance, the focus is not primarily on explaining particular organizational structures dominating at one point in time, but rather on finer-grained decision-making processes, especially routines, i.e., 'accepted ways of doing things' that can be associated with capabilities in coordination and control, and in enacting business opportunities. When focusing on strategic governance, scholars study *inter alia* how firms cope in a systemic fashion with 'compounded distance', which has geographic, economic, cultural and institutional components, and how these firms systematically learn over time, thereby affecting both exploitation of existing strengths and the exploration of new resource combinations.

[3] Bounded rationality departs from perfect rationality assumptions and refers to the multi-faceted nature of information and limitations surrounding its access, interpretation, and processing that can lead to commitment failures (cf. Simon, 1962). Bounded reliability refers to the potential failure of economic actors to meet their commitments, due in part to opportunism, benevolent preference reversal, and identity-based discordance (Kano & Verbeke, 2015; Verbeke & Greidanus, 2009). Two elements discussed in the literature on micro-foundational capabilities that fall outside of the scope of this paper, but which we mention here because they could reduce bounded rationality and bounded reliability, are the following. First, cognitive capabilities, which include cultural awareness, global mindset, and entrepreneurial orientation. Second, managerial capabilities, which include analytical capabilities and interface competences (Eriksson, Nummela, & Saarenketo, 2014).

[4] Internalization theory did not fully integrate macro-environmental influences (e.g., locational advantages) as a parameter driving managerial decisions on location choice; this changed with NIT (Rugman & Verbeke, 2005). In NIT, location decisions by MNE managers are usually a function of company goals to develop or sustain competitive advantage by combining firm specific advantages (FSAs) and accessible complementary resources in host countries, regions and firms in order to lower costs, gain market access, innovate, and mitigate risks (Gooris & Peeters, 2016; Hillemann and Verbeke, 2014; Narula & Verbeke, 2015; Rugman & Verbeke, 1992; Verbeke & Kano, 2016; Verbeke, Zargarzadeh, & Osiyevskyy, 2014).

[5] Hennart (1982) notes that employment contracts are used by firms to organize a hierarchy-based system that decouples pay from performance and is driven by behavior instead; a side effect is that this reduces the incentive to maximize output, leading to potential shirking. On the other hand, market contracts are used to organize a price-based system that links pay to performance thereby preventing shirking, but it is prone to cheating (e.g., with contracting parties inflating prices or providing difficult-to-detect lower quality output than promised). Organizing costs are the sum of shirking and cheating costs. These costs manifest themselves as the costs of organizing cooperation given the conditions of bounded rationality, partially overlapping goals, and opportunism.

that affect the relative advantages of these entry modes[6] (Anderson & Gatignon, 1986; Buckley & Casson, 1976). They have also studied the communication costs incurred in transferring intangible knowledge across borders as well as the related learning challenges [7](Teece, 1977).

Internalization theory has undergone changes since the turn of the century. *First*, there has been growing recognition of some previously underestimated costs of internalization (Buckley, 2009a), and also of the role played by external partners and macro-level conditions in de-internalization (Rugman & D'Cruz, 2000; Rugman & Verbeke, 2003). This recognition has eventually led researchers to move away from MNE-centric studies and to incorporate the transactional characteristics of resources held by other economic actors that are necessary for effective resource recombination (Hennart, 2009).

Second, following Kogut and Zander's (1993) emphasis on the combinative capabilities of MNEs (Verbeke, 2003), scholars have increasingly applied both transaction-cost theory and the resource-based view to study how governance structures can foster the creation of new firm-specific advantages (FSAs) (e.g., Gooris & Peeters, 2016; Rugman & Verbeke, 2003). This has also led to consideration of regional MNE governance structures to account for the effects of distance and to facilitate context-specific learning (Rugman & Verbeke, 2005; Verbeke & Kano, 2012).

Third, some scholars have criticized the Williamson (1975) view of opportunism – self-interest seeking with guile — arguing that it is conceptually underdeveloped and less commonly seen than hypothesized (Rugman & Verbeke, 2005; Verbeke, 2003). Moreover, it has been faulted on the grounds that it is insufficient to fully explain the micro-foundational challenges facing the MNE, that it leads to excessive emphasis on formal safeguards (e.g., Kano & Verbeke, 2015), and that it does not properly take into consideration entrepreneurship-oriented governance and contractual arrangements meant to facilitate richer relationships and joint entrepreneurial action.

In the early 1990s, internalization scholars started to apply a network-based approach to MNE B2B relationships (Rugman & D'Cruz, 2000; Rugman & Verbeke, 2003). The asymmetrical network model advocated by these scholars departed from conventional arm's-length competitive relationships, focusing instead on strategic long-term collaborative ones, usually centered around a flagship firm (D'Cruz & Rugman, 1992, 1993) which Rugman and D'Cruz (2000, p. 403) defined as "a multinational enterprise which has taken on the strategic leadership of a business network consisting of four other partners: key suppliers, key customers, selected competitors, and the non-business infrastructure".[8]

These authors argued that MNEs that de-internalized transactions had to find a way to reduce information problems and commitment failures in order to mitigate their dysfunctional outcomes (Rugman, D'Cruz, & Verbeke, 1995; Rugman & D'Cruz, 2000). We refer to such problems and failures as the dark side of B2B relationships in GVCs. Micro-foundational considerations can also be used "to evaluate the innovation potential and related benefits of each [governance] alternative" (Rugman & Verbeke, 2003, p. 128). Rugman and Verbeke (2003) added to the flagship network approach with their discussion of how subsidiaries and their external partners can develop new location-bound and internationally transferable FSAs. They distinguish between headquarters-directed entrepreneurial activities and subsidiary-driven ones within differentiated network MNEs.[9] They also called for getting rid of headquarters-directed activities that "fail to generate sufficient market potential, profitability, or even interest from subsidiaries" (Rugman & Verbeke, 2003, p. 133). Relatedly, Cantwell et al. (2010) argued that greater subsidiary flexibility permits experimentation and FSA co-evolution with local internal and external partners. Here the "idiosyncratic bundling of internal and external resources ultimately determines each subsidiary's role" (Rugman, Verbeke & Yuan, 2011, p. 254).

The Williamsonian concept of opportunism is increasingly seen as a subset of a broader, envelope concept of bounded reliability. Bounded reliability is defined by Kano and Verbeke (2015, p. 98) as an "imperfect effort to make good on open-ended commitments" and presents a human behavioral challenge distinct from – but complementary to – purely information-related bounded rationality. Inadequate performance may be due to opportunism, but also to benevolent preference reversal and identity-based discordance. *Benevolent preference reversal* occurs when partners 'change their mind' either due to reprioritization or overcommitment. Reprioritization can occur because other opportunities emerge with a higher pay-off, leading to a reordering of preferences, or may simply be due to more proximate events being preferred over more distant ones – a type of time discounting bias (Verbeke & Greidanus, 2009). Unilateral reprioritization leaves partners unable to capitalize on joint opportunities that could have been acted upon. A partner may also be overcommitted – often the result of an unrealistic belief in one's own abilities (Verbeke & Greidanus, 2009).

Identity-based discordance occurs when partners are unable to deliver on commitments due to regression or divided engagement. Regression occurs when partners deviate from an agreed upon course of action because they are unable to change old habits and/or genuinely – but wrongly – believe that the way things have been done previously is adequate for meeting their commitments (Mudambi, Saranga, & Schotter, 2017; Kano & Verbeke, 2015). Partners display divided engagement when they privilege local goals that are detrimental to global ones, i.e. those that benefit all partners involved. In such cases, partners may genuinely believe they are serving the MNE or entire GVC despite their well-intentioned but poorly governed behavior being detrimental to the interests of other members inside the MNE or GVC (Kano & Verbeke, 2015).

According to NIT, MNEs create competitive advantages by transferring, augmenting, and recombining their FSAs with host-country resources (Kano, 2018; Kano & Verbeke, 2015; Teece, 2014). NIT focuses on how MNE governance decisions affect performance (Buckley, 2016; Narula & Verbeke, 2015). It builds on the internalization theory literature, but stresses the dimensions of novel resource-recombination processes (Teece, 2014; Verbeke & Kenworthy, 2008). As noted above, NIT has roots in both the TCE and the resource-based view (RBV) literatures

[6] For example, Buckley and Casson argue that four categories of factors affect the decision to internalize transactions, namely those specific to: (i) the *industry* and related "to the nature of the product and the structure of the external market"; (ii) the *region* and related "to the geographical and social characteristics of the regions linked by the market"; (iii) the *nation* and related "to the political and fiscal relations between the nations concerned"; and (iv) the *firm*. These "reflect the ability of management to organize an internal market" (1976, p. 33). They further argued that an MNE's degree of internalization hinges on macro-environmental, GVC-level, and micro-foundational factors (Buckley and Casson, 1976; see also Casson 1979).

[7] Buckley & Casson (1976) defined these "communication costs" as originating from greater internal information needs, the overhead cost of setting up an independent communication system, and the need to validate information.

[8] Non-business infrastructure "includes the service-related sectors, educational and training institutions, the various levels of government, and other organizations such as trade associations, non-governmental organizations and unions" (Rugman & D'Cruz, 2000, p. 404).

[9] A differentiated network implies that an "MNE is organized in different ways in the various regions of the world and in its various businesses, as a function of requisite complexity" (Nohria & Ghoshal, 1997). This implies that "different types of subsidiaries may need to have access to very different knowledge bundles (in the form of intangible assets, learning capabilities and external relationships) as compared to other affiliates, or even outside actors, even when operating in the same industry segments" (Rugman & Verbeke, 2003, p. 130). In addition, "multidirectional knowledge flows are observed, accompanied by complex resource combinations to create competitive advantage" (Rugman & Verbeke, 2003, p. 130)

(Rugman & Verbeke, 2002). It suggests that MNEs must not only establish legal safeguards and relational mechanisms to mitigate problems due to bounded rationality and reliability, but must also capitalize on entrepreneurial opportunities made possible by these novel resource combinations. Entrepreneurship-oriented mechanisms, which vary in formality, differ from formal and relationship-based safeguards which aim to protect clearly defined interests.

3. Methodology

We adopted an abductive empirical approach given the relative novelty of our topic. The abductive approach involves repeatedly going back-and-forth between data and theory (Mantere & Ketokivi, 2013; Lipton 2004). It also requires data rich enough for making plausible causal conjectures (Van Maanen, Sørensen, & Mitchell, 2007). We do a qualitative study of nine GVCs and apply a theoretically derived coding framework to data obtained from secondary sources.

Qualitative case-based research is appropriate for our context because we are interested in *why* there are micro-foundational threats and opportunities in GVCs, and *how* they can be managed. This precluded the use of surveys and archival analysis that favor *who, what, where, how many, and how much* questions (Yin, 2018). Our approach makes it possible to use detailed, rich, and complex data (Siggelkow, 2007). Research on GVC strategic governance is still at an early stage of development and does not lend itself to the use of experiments (Yin, 2018). Finally, we respond to the call for methodological pluralism (Heugens & Mol, 2005) in the study of micro-foundational challenges in GVCs.

We went through the following steps. First, we developed a theory-driven framework that can be visualized in a matrix. It incorporates micro-foundational dimensions on the vertical axis (i.e., bounded rationality and various types of bounded reliability) and governance mechanisms to address these challenges on the horizontal axis (i.e., formal safeguards, relational tools, and entrepreneurship-oriented mechanisms) (see Table 1). We filled this framework with managerial tools previously identified in the GVC literature (see Gereffi et al., 2005; Hawkins et al., 2008; Kano & Verbeke, 2015; Kano, 2018; Verbeke, 2003). Second, we selected our GVCs by theoretical sampling, specifically seeking cases that were well documented and discussed in business school case studies. Case-studies aim to describe "real business situations that capture the complexity of organizational life" (Liang & Wang, 2004, p. 398, in Ambrosini et al., 2010, p. 209). They are a good source of rich and detailed longitudinal data secured from primary and secondary sources (Miller & Friesen, 1977) that can "be used for theory testing or theory building" (Ambrosini et al., 2010, p. 217). They save on time and costs – and are a solution to access problems incurred when doing fieldwork. They can, however, be incomplete and suffer from author bias (Ambrosini et al., 2010; Miller & Friesen, 1977). While Miller and Friesen recognize those drawbacks, they put them into perspective by writing that it is "difficult to envisage any one source of information which cannot be subject to some type of systematic perceptual distortion" (1977, p. 256). We took the following measures to lessen the potential for these types of problems (see Ambrosini et al., 2010; Yin, 2018). We made sure that the case studies: (i) addressed our research question; (ii) were coded using detailed schema and multiple raters; (iii) were on real, identifiable organizations and could be accessed from recognized case clearing websites; (iv) could be triangulated using corroborating evidence from public sources; and (v) provided direct quotes from executives so we did not have to rely solely on interpretations by case writers.

Multiple raters content-analyzed the case studies by identifying macro-level influences (i.e., exogenous and endogenous circumstances), micro-level challenges (i.e., bounded rationality, *ex ante* opportunism, *ex post* opportunism, reprioritization, overcommitment, regression, and divided engagement), structural governance decisions (e.g., location and control-mode), and strategic governance tools deployed (i.e., formal safeguards, relational tools, and entrepreneurship-oriented mechanisms) (Gibbert, Ruigrok, & Wicki, 2008). Inter-rater differences we e resolved through discussion. We then summarized the coded instances of micro-foundational challenges and their associated governance decisions, iteratively validating and augmenting our framework. Finally, we used our revised framework to re-analyze the case-studies and additional information we obtained from press articles (primarily from *The Wall Street Journal* and the *Financial Times*[10]), and reports and briefs from the company websites so as to identify missed instances of micro-foundational challenges and the managerial responses to them.

4. Findings

We present some exploratory, case-based evidence on how our nine MNEs, Bayer CropScience, Daiichi Sankyo, IKEA, IOI Global, Li & Fung, Nestlé, Ribe Maskinfabrik, The Children's Place, and Volkswagen have been addressing the dark side of B2B relationships in GVCs. The case-based evidence suggests that these nine MNEs have systematically used formal safeguards, relational tools, and entrepreneurship-oriented governance mechanisms to prevent or mitigate dark side outcomes in B2B relationships, both inside their own subsidiary network and within their GVC ecosystem (see Table 1). We now discuss selected results from these case studies.

4.1. GVC governance design to reduce bounded rationality challenges

Formal safeguards to manage bounded rationality are a first line of defense against dark side outcomes in B2B relationships. They include organizational routines that facilitate the efficient flow of information for present and future decision-making. Most governance tools that reduce bounded rationality problems also improve partner reliability. We first describe governance tools that address primarily information asymmetries, and whose main purpose is to gain better access to information and to make better use of it.

In our data, we observed instances of scanning – i.e., use of monitoring-oriented routines and metrics to assess suppliers and their initiatives – and learning routines introduced for formal knowledge assimilation and diffusion. Scanning routines have been used by Nestlé, a multinational food and drink processing conglomerate headquartered in Vevey, Switzerland, in response to "growing pressure on industry players to demonstrate the origins of their materials" (Goldberg & Fries, 2012, p. 11). Such scanning aims to achieve "increased transparency and accountability upstream in its supply chain" (Goldberg & Fries, 2012, p. 8). For Nestlé this has included searching all stages of its GVCs for external evaluators of compliance with Nestlé's sustainability guidelines. Along similar lines, a Vendor Compliance and Sustainability executive at Li & Fung (LF), a Bermuda-incorporated, Hong Kong-based supply chain management company, stated that "[i]nstead of just auditing, we need assessment, education, and engagement" with suppliers in order to cope with current and future environmental challenges (Hau & Melvin, 2015, p. 12). Ribe Maskinfabrik (RM), a Danish manufacturer of metal components for wind turbines, ships, offshore platforms, and other uses, went further and installed "knowledge cells" to do low-cost development and testing for clients (Nielsen, Pedersen, & Pyndt, 2009).[11]

Finally, the directors of IOI Global (IOI), a Malaysian integrated palm oil firm with globally dispersed operations, routinized meetings with the heads of their subsidiaries to obtain information on all aspects of their operations (Dieleman, 2018. p. 2). These helped headquarters improve

[10] Secured from the Dow Jones Factiva database, based on company name and time period (as of January 1, 2000); these two press sources provide North American and Eurocentric coverage. If no article was found, a wider search across all news sources available in the database was conducted.

[11] RM is now part of AH Industries.

Table 1
Summary of GVC case studies.

MNE	Synopsis	Micro-Foundational Challenge	Formal safeguards (F), Relational tools (R) and Entrepreneurship-oriented Governance Mechanisms (E)
Bayer CropScience	Bayer's Indian acquisition and the discovery of child labour use in the GVC; multiple governance approaches applied and resulting successes and failures	**Bounded Rationality**	**F** - Scanning for responsible investments by adopting new procedures **F** - Scanning routines to assess magnitude of child labour problems in the supply chain **R** – Partnership with Child Labour Elimination Group, together with industry and non-industry partners to remove child labour in supply chain
		***Ex ante* Opportunism**	**F**- Contractual clauses requiring GVC partners to abide by the MNE's code of conduct and other standards
		***Ex post* Opportunism**	**F** - Facilitating information flows through internal and third-party monitoring, inspections and audit programs **F** - Adaptive mechanisms such as warnings, corrective action plans, and reduced procurement prices/termination in instances of non-compliance **R** - Activities to increase GVC partner awareness of intolerance to child labour
		Reprioritization	**F** - Joint planning, milestones, and regular reviews between Indian subsidiaries and headquarters on child labour issues **R** - Usage of expatriates to align interests between headquarters and subsidiaries
		Regression	**F** - Sharing technology and training to increase farmer productivity **F** - Educational projects to address limited access to education (a key factor in perpetuating child labour) **E** - Guided knowledge transfer on crop protection through farm assistantship programs to challenge beliefs in old routines and overcome ceremonial commitment
		Divided Engagement	**F** - Implementing system of incentives and penalties for suppliers to eliminate child labour **R** - Informal coordination to develop common identity and culture between headquarters and Indian subsidiaries **R** - Informal coordination between headquarter managers and farmers to align global and local priorities **R** - Informal coordination with government agencies
Daiichi Sankyo	Daiichi Sankyo implements governance changes to overcome integration challenges	**Regression**	**F** - Top management team changes
		Divided Engagement	**F** - Creating inter-divisional committees (Synergy office; Strategy group; multiple working groups) to routinize coordination between headquarters and Indian subsidiary
IKEA	IKEA implements growth and sustainability policies across its GVC	**Bounded Rationality**	**F** - Scanning consumer priorities across different markets to match supply **R** - People & Planet advisory board and Forest Stewardship Council challenging and inspiring the company on strategic sustainability issues and helping to solve key challenges **E** - Developing joint solutions with GVC partners to improve working conditions and sustainability practices
		***Ex ante* Opportunism**	**F** - Employment contracts to hold employees directly accountable for implementing sustainability objectives **F** - Contractual clauses requiring GVC partners abide by company code of conduct and other standards
		***Ex post* Opportunism**	**F** - Facilitating information flows through internal and third-party monitoring, inspections and audit programs **F** - Adaptive mechanisms such as warnings, corrective action plans, and reduced procurement prices/termination for noncompliance **R** - Voluntary information sharing and stakeholder engagement to respond to accusation of opportunistic behavior
		Regression	**R** – Pursuit of transformational change through personal leadership by embedding this approach within the organization
IOI Global	IOI Global, a centralized and efficiency seeking family firm in the palm oil business finds knowledge transfer and coping with the requirements of an innovation focused subsidiary challenging	**Bounded Rationality**	**F** - Regular discussions and mutual involvement of operations and R&D in each other's activities to ensure full alignment **R** - Multi-location Board level coordination to overcome emergent challenges **R** - Formation of Roundtable of Sustainable Palm Oil with industry and non-industry partners **E** - Co-development of new applications of NLB FSAs across subsidiaries
		***Ex post* Opportunism**	**R** - Increased disclosures, media outreach and other forms of stakeholder engagement as response to accusation of opportunistic behavior
		Regression	**R** - Personal leadership by example to ensure lean operations and cost control in subsidiaries
		Divided Engagement	**R** - Overcoming failure to leverage subsidiary capabilities for stakeholder engagement across enterprise
Li & Fung		**Bounded Rationality**	**F** - Creation of Fung Academy to accelerate learning across the company

(*continued on next page*)

Table 1 (*continued*)

MNE	Synopsis	Micro-Foundational Challenge	Formal safeguards (F), Relational tools (R) and Entrepreneurship-oriented Governance Mechanisms (E)
	Li & Fung's path dependent and location driven challenges in implementing growth and sustainability policies in its GVC in order to meet client requirements		**F** - Assessment, education, and engagement with suppliers to cope with current and future challenges **F** - Assessing demographic trends, harvest schedules, weather conditions, and political stability **R** - Formation of Risk Management and Sustainability Committee and Vendor Support Services program to informally engage GVC partners for long-term sustainable relationships **E** - Developing joint solutions with GVC partners to improve working conditions and to implement innovative concepts across the supply chain
		***Ex ante* Opportunism**	**F** - Contractual clauses requiring GVC partners would abide by code of conduct and other standards **E** - Searching for entrepreneurial partner networks through "loose-tight" relationships
		***Ex post* Opportunism**	**F** - Facilitating information flows through internal and third-party monitoring, inspections and audit programs **F** - Adaptive mechanisms such as warnings, corrective action plans, and termination for non-compliance
		Reprioritization	**F** - Regular reviews to track progress on previously developed corrective action plans **R** - Informal negotiations to align interests with suppliers in order to meet client requirements **E** - Diplomatic approaches - financing transaction-specific, efficiency-seeking equipment
		Overcommitment	**F** - Productivity consulting to ensure supplier ability to meet demands
		Regression	**F** - Developing tools, resources, and training to help suppliers learn good practices and improve over time **R** - Communicating risks, costs, and opportunities of business in changing environment to convince GVC partners to be receptive to change
		Divided Engagement	**F** - Implementing system of incentives and penalties for suppliers to overcome coordination challenges related to sustainability and health and safety standards **R** - Informally coordinating with clients and suppliers to harmonize conflicting demands **E** - Co-development of creative goals, practices, processes, and performance measures, and fostering internal markets to energize innovation.
Nestlé	Nestlé overcomes challenges in sustainably procuring its agricultural raw materials through its large and complex GVC by implementing managerial tools and diverse path dependent solutions	**Bounded Rationality**	**F** - Scanning for long term success measures by distancing from short-term reporting **F** - Increasing transparency and accountability in the upstream supply chain, including through usage of impartial evaluators **F** - Scanning for macro-environmental trends and consumer priorities **R** - Formation of Responsible Sourcing Audit Program with industry and non-industry partners to overcome sustainability challenges **E** - Developing joint solutions on sustainability and security of supply with GVC partners
		***Ex ante* Opportunism**	**F** - Contractual clauses to protect transaction-specific investment and the independence of GVC partners **F** - Contractual clauses requiring GVC partners to abide by code of conduct and other standards
		***Ex post* Opportunism**	**F** - Facilitating information flows through internal and third-party monitoring, inspections and audit programs **F** - Adaptive mechanisms such as warnings and termination for non-compliance **R** - Voluntary information sharing and stakeholder engagement as response to accusations of opportunistic behavior
		Reprioritization	**F** - Developing new expectations for long-term success and dropping past ones focused on short-term reporting
		Regression	**F** - Internet-based information platform and formal training (courses) on agricultural best practices **R** - Managing impressions by signaling long-term commitment (e.g., by establishing factory) **R** - Addressing contextual barriers preventing change (e.g., child labour issue requiring behavioral changes, empowerment to free children of work obligations, and to provide access to schools)
		Divided Engagement	**F** - Incentivizing employees to seek long-term sustainability-oriented decisions **F** - Implementing system of incentives and penalties for suppliers to overcome coordination challenges in agricultural sourcing (e.g., through Farmer Connect program)

(*continued on next page*)

Table 1 (*continued*)

MNE	Synopsis	Micro-Foundational Challenge	Formal safeguards (F), Relational tools (R) and Entrepreneurship-oriented Governance Mechanisms (E)
			R - Informal coordination with businesses, govt., NGOs, and financial institutions toward sustainable agriculture
Ribe Maskinfabrik	RM's global expansion, the associated internal and external opportunities and challenges, and its implementation of governance mechanisms	**Bounded Rationality**	**F** - Scanning routines to assess internal trade, profits, and performance across international subsidiaries **F** - Upgrading worker capabilities through new hires **F** – Routinizing of learning across GVC through knowledge cells **F** - Scanning client priorities and cost trends for potential offshoring locations **E** - Co-developing innovative offshoring services with GVC partners
		***Ex post* Opportunism**	**R** - Communicating benevolent intentions through location-specific investments benefitting existing partners, who will therefore not be left behind.
		Reprioritization	**R** - Usage of expatriates to cultivate and monitor sourcing arrangements **E** - Diplomatic approaches - enable purchase of transaction specific assets; financial support
		Overcommitment	**F** - Screening suppliers to match production capacity with client needs; engaging additional suppliers as needed **F** - Assisting suppliers in production planning and follow-up systems **R** - Informally checking clients' underlying motivation for offshoring and financial situation **E** - Guiding clients against offshoring if these are pursued for the 'wrong' reasons
The Children's Place	TCP identifies and implements needed governance changes to manage a health & safety tragedy in a developing country with associated reputational impacts.	**Bounded Rationality**	**F** - Inspections to understand the nature of the safety challenges posed by developing country suppliers **R** - Formation of industry-level coalition to overcome safety challenges with developing country suppliers
		***Ex ante* Opportunism**	**F** - Contractual clauses requiring GVC partners to abide by code of conduct and other standards
		***Ex post* Opportunism**	**F** - Facilitating information flow through internal and third-party monitoring, inspections and audit programs **F** - Adaptive mechanisms such as warnings, corrective action plans, and termination for non-compliance
		Reprioritization	**F** - Regular reviews to track progress on previously developed corrective action plans
Volkswagen	Disruptions to Volkswagen's GVC due to its 2015 emissions scandal and resultant governance changes	***Ex ante* Opportunism**	**F** - Pricing floors and incentives in contracts with dealers **R** - Informal supplier engagement to identify potential strategic partners
		***Ex post* Opportunism**	**R** - Communicating with stakeholder groups to mitigate earlier opportunism **E** - Incentivizing suppliers and creating favorable conditions for innovations
		Regression	**E** - Co-developing innovations with strategic suppliers

decision-making and accelerate the diffusion of subsidiary-level innovations and best practices throughout the MNE and its GVC.

Relational governance tools to manage bounded rationality may entail adding more cultural and experiential diversity in corporate boards and having more outside directors and specialized committees charged with engaging with external partners. At Li & Fung, a 'Risk Management and Sustainability Committee' and a 'Vendor Support Services' (VSS) program were formed to enhance communication with GVC partners. William Fung, LF's managing director, explained that the VSS helps "introduce and enable sustainability across the supply chain by providing key services to suppliers to help them upgrade", and further that "this approach would enable LF to move from a relationship with factories that was often thin and transactional to one that was long-term and strategic, while building competitive advantage for all parties" (Hau & Melvin, 2015, p. 11).

Entrepreneurship-oriented tools are used to co-develop new products and processes with GVC partners. At RM, "if a company came up with an idea but lacked the necessary financial resources to develop the idea and conduct the trial-and-error phases, RM offered to recruit Chinese developmental engineers and provide facilities at a much lower cost" (Nielsen et al., 2009, p. 4). Similarly, IOI Global, LF, Nestlé, and IKEA, a Swedish retailer of furniture and home accessories, collaborate with their GVC partners to co-develop new ways of improving working conditions and of ensuring security of supply (Dieleman, 2018; Goldberg & Fries, 2012; Rangan, Toffel, Dessain, & Lenhardt, 2014; Hau & Melvin, 2015).

None of the above examples of reducing bounded rationality challenges address commitment failures directly. However, because they improve transparency, these formal safeguards and relational and entrepreneurship-oriented tools help improve partner reliability. MNEs use these tools to anticipate and mitigate bounded reliability challenges as well. In particular, as noted above, MNEs must cope with the risks of *ex ante* and *ex post* opportunism, benevolent preference reversal (reprioritization and overcommitment), and identity-based discordance (regression and divided engagement).

4.2. GVC governance design to cope with opportunism-related bounded reliability challenges

Formal mitigation mechanisms to address *ex ante* opportunism include investigating partner reputation, contractual safeguards (e.g., price hedging in supplier contracts), and incentive alignment (e.g., building mutually beneficial clauses into contracts). For instance, in the wake of its emissions cheating scandal, German automaker Volkswagen (VW) set up "pricing floor and incentive programs to retain relationships with its [car] dealers" (Shah, Singh, & Puri, 2017, p. 5). These formal safeguards were introduced to secure dealers' continued association with VW. Contractual clauses used by Bayer, a German pharmaceutical and life sciences company, LF, IKEA, Nestlé and The Children's Place, a US-based retailer of children's apparel, are also noteworthy. These MNEs have contractually imposed on their suppliers a set of stringent requirements to abide by their codes of conduct and other standards (Goldberg & Fries, 2012; Rangan et al., 2014; Hau & Melvin, 2015; Subramanian, 2015; Subramanian, Dhanaraj, & Branzei, 2011a; Subramanian, Dhanaraj, & Branzei, 2011b)

There are also formal safeguards intended to prevent *ex post* opportunism. These include monitoring to reduce bounded rationality challenges, contractual safeguards in the form of options for *ex post* amendments to contracts and performance improvement plans, the threat of legal action, or ending the business relationship altogether. The five firms we list directly above all use internal and third-party inspections and audits (Goldberg & Fries, 2012; Rangan et al., 2014; Hau & Melvin, 2015; Subramanian, 2015; Subramanian et al., 2011a; Subramanian et al., 2011b). Dark side outcomes do not necessarily lead to immediate contract termination. There are a number of less 'definitive' measures that MNEs might use first such as warnings and corrective action plans. An MNE discovering egregious non-compliance such as a partner breaking child labor laws or engaging in environmentally unsound practices, may be penalized by a reduction in procurement prices coupled with a threat of relationship termination if there is persistent non-compliance.

Relational governance tools to curb *ex ante* opportunism include pre-contract informal interaction to encourage the development of positive relational norms and discourage opportunistic behavior. Such interaction is often an important part of the supplier selection process, especially so in sourcing critical inputs. Volkswagen nurtured potential strategic suppliers and evaluated their performance over a six-month period before shortlisting 44 of them for its Future Automotive Supply Tracks (FAST) program[12] designed to boost innovations.[13]

Relational mitigation mechanisms against *ex post* opportunism include voluntary exchange of information. Sometimes, relational mechanisms are subtle. When RM decided to partially move its operations to China, it unambiguously communicated its ongoing commitment to its European suppliers by emphasizing its intention to continue to invest in technology for its Central and Eastern European subsidiaries (South China Morning Post, 2007). Similarly, in the Indian south-eastern coastal state of Andhra Pradesh, Bayer "scaled up its awareness activities to communicate the message that Bayer does not tolerate child labor to reach nearly 10,000 farmers. For weeks in a row, educational rallies and road shows were organized across several villages" (Subramanian et al., 2011b, p. 10).

Entrepreneurship-oriented mitigating mechanisms against *ex ante* opportunism involve searching for partners with entrepreneurial and innovative capabilities. LF relies on "loose-tight" supplier relationships with "a target of occupying a minimum of 30 percent of a given supplier's business and a maximum of 70 percent" (Hau & Melvin, 2015, p. 5). This tells suppliers that LF does not want them to be dependent on it alone, signaling early on that it will not itself engage in opportunistic behavior. LF has used the same strategy to foster independence internally; "Managers of individual divisions were given significant independence and encouraged to act entrepreneurially on behalf of their clients. Victor Fung [Group Chairman] dubbed them 'Little John Waynes' to describe their cowboy-like freedom." (Hau & Melvin, 2015, p. 5). The LF approach to management of its internal and external networks has allowed for more innovation, in itself a deterrent to opportunism as it signals reciprocal tolerance for risk-taking.

Entrepreneurship-oriented mechanisms for mitigating *ex post* opportunism attempt to nudge partners towards pursuing mutually beneficial innovation activities. Volkswagen incentivizes its suppliers to pursue shared targets and has created a favorable environment for developing new electric-car related technologies through its FAST program.[14] Likewise, Nestlé tries not to intrude in GVC partner operations thereby "…protecting the unique creativity of the firms and their heavy investment in sensitive research" and also rigorously maintains "the independence of the public and NGO entities involved." This entrepreneurial focus is further supported by contractual clauses that suggest tolerance for risk-taking and failure (Goldberg & Fries, 2012, p. 3). By reducing the perceived threat to its GVC partners that it would itself engage in opportunistic behavior and by eliciting entrepreneurial behavior of these other partners, innovations arising anywhere in the GVC can also be fast-tracked.

4.3. GVC governance design to cope with benevolent preference reversal-related bounded reliability challenges

Formal safeguards to prevent commitment failure stemming from reprioritization include engaging in joint long-range planning, setting milestones, and regularly reviewing the plans of partners to identify and eliminate conflicting commitments. LF and TCP do regularly conduct reviews of their GVC partners to track their progress, and if needed use previously negotiated corrective action plans to prevent them from reprioritizing (Hau & Melvin, 2015; Subramanian, 2015).

Formal safeguards to reduce the likelihood of partner over-commitment are also available. Setting joint goals or limiting allowable new activities may alleviate impulsivity, self-assessment bias, and overextension. RM "typically screened capacity loads in its supplier network to match production quantities with client needs. In some instances, additional suppliers were needed, and RM had to establish new relationships" (Nielsen et al., 2009, p. 4). RM also "assisted its suppliers in production planning and follow-up systems — often product manuals needed to be translated and product drawings needed to be documented and fine-tuned to the supplier's production set-up" (Nielsen et al., 2009, p. 4). LF supports the suppliers in its GVC with "productivity consulting" to ensure their ability to meet conflicting demands for lower production costs and higher standards, as well as "shorter turnaround times, driven by trends such as fast fashion and advancements in retail technologies and e-commerce"[15] (Hau & Melvin, 2015, p. 13).

Relational governance tools to mitigate the risk of reprioritization can be used to align interests in ways that cannot be fully captured in formal terms, for example using expatriates to bridge cognitive distance. *Ex ante* informal negotiations can help reduce conflicting commitments. LF negotiates with suppliers to align both parties' short-term and long-term interests and to improve overall supplier operations so as to be able to meet ongoing client requirements. These informal negotiations encourage suppliers to reserve capacity that might be needed should customers decide to exercise negotiated options for extra production volumes (Hau & Melvin, 2015).

Relational tools to identify and avoid overcommitment include determining if GVC partners will be able to fulfil their obligations. RM meets with potential clients in an effort to determine why they are seeking to outsource to them. Executives attempt to find out if the strategic implications of outsourcing have truly been considered or if outsourcing is "the last and desperate attempt to stay financially afloat" (Nielsen et al., 2009, p. 4). RM wants to identify would-be clients who may be pursuing offshoring and outsourcing because of organizational or financial overcommitment. In such cases, offshoring and outsourcing should be discouraged because undertaken for the wrong reasons, and likely to lead to quality problems experienced by both suppliers and the

[12] The FAST program was developed in response to the diesel engine scandal.

[13] https://www.volkswagen-newsroom.com/en/press-releases/the-fast-corporate-initiative-volkswagen-group-procurement-nominates-strategic-partners-2081

[14] https://www.volkswagen-newsroom.com/en/press-releases/the-fast-corporate-initiative-volkswagen-group-procurement-nominates-strategic-partners-2081

[15] For example, by improving the concept to store process time.

clients for whom RM consults.

Entrepreneurship-oriented mechanisms are used to get GVC partners to become more innovative, e.g., by supporting upgrades of their 'assignment-specific' technologies (these are technologies specific to the component/segment of work assigned to each GVC partner). In some cases, this may require financial support from the lead MNE. RM has "often helped the supplier purchase specific machinery or IT systems, or provided financial support to circumvent cash-flow difficulties" (Nielsen et al., 2009, p. 4). LF has offered similar backing, it "could also help finance a purchase of such [efficiency seeking] equipment through its financing unit, LF Credit. As future environmental issues arose—like shortages of clean water, which could have direct implications for business—VSS [Vendor Support Services] would have relationships and knowledge that could be extended to help suppliers cope" (Hau & Melvin, 2015, p. 12).

Entrepreneurship-oriented mechanisms aim to mitigate over-commitment by pushing partners to focus on their main areas of expertise. For instance, Rimadan, an RM subsidiary, helps industrial clients engage in optimal bundling of their own firm-specific strengths with the location advantages of particular countries, thereby also fostering its own growth: "The cultivation of [viable] outsourcing projects as a business area resulted in considerable growth in revenue per headcount" (Nielsen et al., 2009, p. 4).

4.4. GVC governance design to cope with identity-based discordance-related bounded reliability challenges

Formal safeguards to prevent regression include training to unlearn dysfunctional practices, training in IT-enabled information collection, analysis, and exchange, and as a last resort, a 'change of men' and hence an end to the contract. The last option was used by Daiichi Sankyo (DS), a Japanese pharmaceutical company supplying over 20 countries, after its acquisition of Ranbaxy. It terminated two consecutive Ranbaxy CEOs and its CFO (Geok & Chua, 2012) before eventually selling the firm. The unwillingness or inability of Ranbaxy top managers to change their ways appears to have played a major role in the house cleaning. Lead MNEs often support the upgrading of their GVC partners as well as that of their subsidiaries, especially in the case of acquisitions. If outdated practices are not unlearned, disappointing external GVC partners need to be dropped and unresponsive subsidiaries divested. At the same time, LF "developed a number of tools, resources, and training programs to enable suppliers to learn good practices and improve over time" (Hau & Melvin, 2015, p. 6), and Bayer shares technology and provides training to increase farmer productivity. Bayer CropScience introduced "an industry-first productivity improvement training program, called "Target 400" that helped increase crop productivity from the average 260 packets of cotton seed per acre towards the ambitious goal of 400 packets per acre" (Subramanian et al., 2011a, p. 11). Without such programs, GVC partners may try to stick with routines that served them well in the past but that are no longer functional.

Formal safeguards for managing divided engagement allow for greater transparency and visibility in the resource allocation process and associated stability as well as buy-in. These may include price incentives or penalties, the creation of internal markets for existing products/standard resources, inter-divisional committees, comprehensive performance reviews, and once again the option of terminating the relationship. Daiichi Sankyo established a Synergy Office, a Strategy Group, and multiple working groups to facilitate the integration of Ranbaxy and to prevent divided engagement (Geok & Chua, 2012), but ultimately none of those measures were sufficient to avert its divestment.

The possibility of a negative reputational effect on their GVCs prompted Bayer, LF and Nestlé to impose incentive and penalty systems on their respective GVC partners in a bid to obtain alignment with company health and safety and child labour standards They all contractually reserved the right to terminate relationships in the eventuality of non-compliance (Goldberg & Fries, 2012; Hau & Melvin, 2015; Subramanian et al., 2011a; Subramanian et al., 2011b).

Relational tools can be used to mitigate regression. The lead MNE can promote the benefits of new practices, engage in relationship building, encourage personal leadership and mentorship and motivate partners to adopt new routines and nurture social networks. LF has communicated to its partners the "risks, costs, and opportunities of business in a rapidly changing environment. This included an understanding of the fundamental nature of the changes that LF anticipated in the global economy" (Hau & Melvin, 2015, p. 15). As the LF Head of Learning and Development describes it "This whole field is in flux. We have to convince people to be open to change — we need them to be more flexible and open to collaboration" (ibid., p. 15).

Impression management is evident at Nestlé. According to Hans Jöhr, Head of Corporate Agriculture, and Manfred Noll, Milk Products Specialist, "The most powerful tool we have to convince new farmers to improve their output, or to even try dairy, is building a factory. When they see the factory going up, they know this is for the long term" (Goldberg & Fries, 2012, p. 10). Similarly, at IOI "the Lee family focused on cost control and led by example. Executives praised the chairman for travelling by car, not helicopter, and for spending time on the ground" (Dieleman, 2018, p. 2). The family's personal leadership also secured efficiencies as "lean operations became a way of life, and the family was proud of IOI's core values and its excellence in execution" (ibid., p. 2).

Relational tools for overcoming divided engagement focus on informal coordination mechanisms such as communication and informal arbitration, and the development of a common identity and culture through inter-personal relationships and team building. LF informally works with suppliers and customers to align their expectations with those of the firm. The goal of such efforts are clear "Many managers recounted how customer demands, including the constant push to lower costs, were viewed as contrary to compliance needs. It was clear that customer buy-in would be necessary for any changes in production approaches—and would entail helping the customer to build a different business model, based on longer-term relationships" (Hau & Melvin, 2015, p. 14). In a similar vein, Bayer's external communication strategy seeks to "win the hearts and minds of farmers who saw no wrong in using children for labor" (Subramanian et al., 2011a, p. 13). It used "everything from written messages against child labor, printed on all company seed packaging in local languages, to farmer awareness campaigns, to traditionally accepted media such as puppet shows, slides in cinema theaters and street plays" (Subramanian et al., 2011b, p. 2).

Entrepreneurship-oriented tools to avoid regression by GVC partners include knowledge transfer, such as providing access to global supply networks, and co-development of new knowledge. Volkswagen develops strategic partnerships with suppliers to co-develop innovations in their areas of competence. As put in a press release in 2015, "[T]he respective strategies and technological orientation in the individual [competence] categories will be even more closely coordinated and aligned. The aim is to successfully implement joint technological innovations ever faster than in the past".[16]

Entrepreneurship-oriented mechanisms to counter divided engagement include setting joint innovation goals, developing common practices and performance measures, and creating internal markets for innovations and new products. LF orchestrates resources across its international manufacturing suppliers through the co-development of creative targets, processes, and performance measures to meet its client needs for sustainability compliance and fast responses. LF requires from its supplier networks "the capacity to adapt to an environment that changed rapidly, and … capabilities in learning and innovation" (Hau & Melvin, 2015, p. 4). In order for its own GVC to be competitive, LF also fosters controlled rivalry among its supplier networks through "loose-

[16] https://www.volkswagen-newsroom.com/en/press-releases/the-fast-corporate-initiative-volkswagen-group-procurement-nominates-strategic-partners-2081

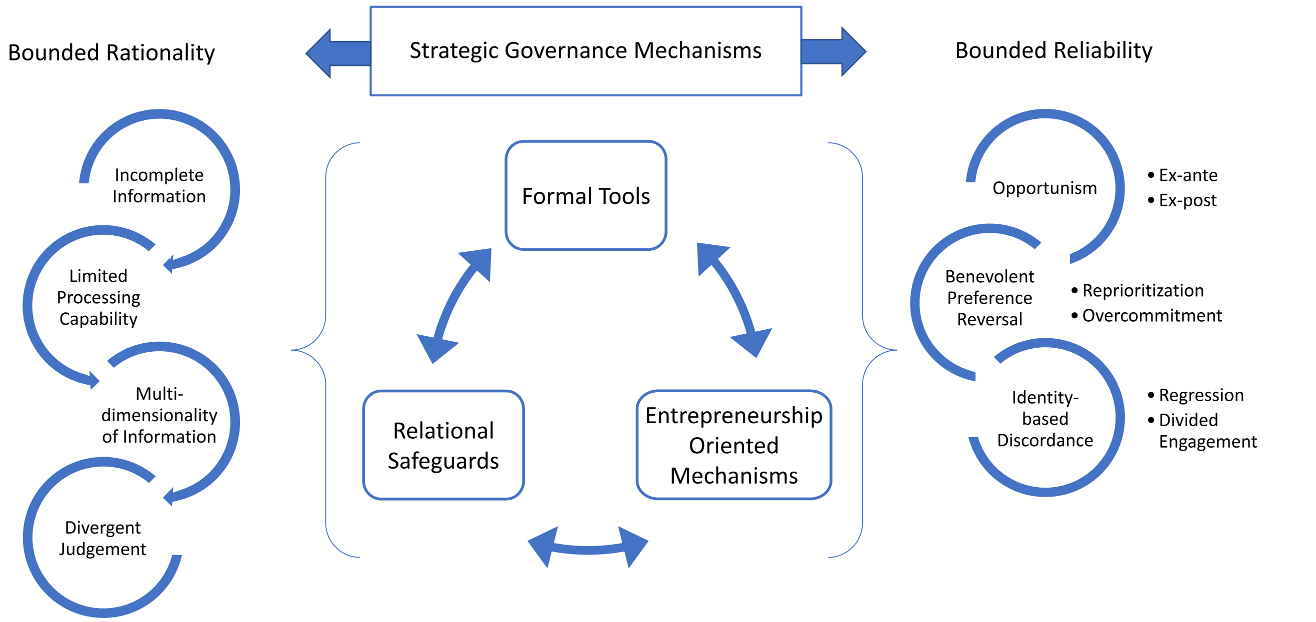

Fig. 1. Micro-foundational drivers of commitment failures and strategic governance mechanisms.

tight" relationships that reward novelty. Whereas this approach might on the surface suggest that the result could be more divided engagement, in the end the internal market allows supplier-led innovations to emerge and keeps suppliers focused on GVC competitiveness.

5. Discussion and implications

We have illustrated with a large number of stylized case examples how MNEs can make use of a broad spectrum of governance tools to prevent or mitigate potential dark side outcomes. Such outcomes have their origin mainly in bounded rationality and bounded reliability. As suggested by Fig. 1, formal, relational, and entrepreneurship-oriented governance tools are not mutually exclusive and may actually reinforce each other.[17] Here, the bounded rationality challenges on the left-hand side cascade down and become stronger from the top to the bottom. The bounded reliability challenges on the right-hand side do not follow a cascading motion but can still be interdependent. The three types of strategic governance mechanisms in the middle of Fig. 1 can be mutually reinforcing for the reduction of dark side outcomes.

Formal safeguards include contracts that set performance expectations, responsibilities and lines of authority, ways of monitoring, reporting requirements, incentives and penalties, and agreement duration (Buckley et al., 2019; Verbeke & Kano, 2016). All these safeguards are introduced *ex ante* to make economic actors more reliable, and they are effective when the level of environmental uncertainty is moderate to low (Verbeke & Kano, 2016). However, as environmental uncertainty increases, contingencies cannot easily be anticipated and hence written into contracts or folded into *ex post* contractual governance (Verbeke & Kano, 2016). Other governance mechanisms may then be needed.

Relational tools can help in the above case. Relational norms can moderate the self-interest seeking behavior of GVC partners and complement more formal governance safeguards to ensure partner reliability in uncertain environments (Teece, Pisano, & Shuen, 1997). Social connections between exchange partners create shared expectations about appropriate behavior and relationship duration (Heide & John, 1992; Kano 2018). Kano et al. (2020) observe, for example, that lead MNEs attempt to adapt their communication to cultural differences, to develop a common identity and language, and to cultivate long-term personal relationships with GVC members.

Finally, *entrepreneurship-oriented* mechanisms may be needed to meet the expectations of GVC members.[18] In order to secure long-term competitive advantage, lead MNEs may need to focus not only on contractual safeguards and on relationship quality, but also on innovation. Lead MNEs and their GVC partners may need to jointly engage in innovative resource combinations and develop new capabilities to cater to new markets, rather than just exploit and improve existing business models (Mudambi et al., 2017). Innovation requires open-ended agreements with built-in flexibility because partner contributions are hard to assess ex ante. Such agreements are difficult to manage through formal contracts or even relational tools (Verbeke & Kano, 2016). Entrepreneurial guidance from the MNE can take many forms, as shown in Table 2 (Zhang & Gregory, 2011). Guidance from lead MNEs and the ensuing joint action with GVC partners can help capitalize on business opportunities, while simultaneously reducing bounded rationality and bounded reliability challenges.

Table 2 summarizes the dark side of B2B relationships in GVCs and identifies, without claiming to be exhaustive, an arsenal of formal safeguards, relational tools, and entrepreneurship-oriented governance mechanisms that can be deployed to alleviate dark side outcomes. We do

[17] In mainstream transaction cost theory, a distinction is made between price incentives (output based) and bureaucratic fiat (regular monitoring) to mitigate goal incongruence, and shared values (socialization) to promote goal congruence (cf. Ouchi, 1980). Similarly, each transaction in the GVC can involve different types of conventional governance mechanisms – price-like ones, bureaucratic rules, and socialization that can differ in importance but are not necessarily mutually exclusive (Hennart, 1993). Here, the relative importance of each of the three mechanisms will depend on the complexity and codifiability of knowledge (i.e., the level of performance evaluation ambiguity) and the availability of complementary capabilities (which in itself can be a driver of the initial level of goal incongruence) relevant to the particular transaction, within the given, exogenous location-specific parameters.

[18] We see the goal of the MNE as securing an entrepreneurial orientation across the GVC. This includes innovativeness, proactiveness, and risk-taking (see Miller, 1983), as well as competitive aggressiveness and autonomy (Lumpkin and Dess, 1996), and facilitating long-term competitive advantage by providing entrepreneurial guidance on non-core activities through the exercise of superior judgement in decision-making (Casson, 2003).

Table 2
Dark side forces in B2B relationships in GVCs and governance design mechanisms (Adapted from Gereffi et al., 2005; Hawkins et al., 2008; Kano & Verbeke, 2015; Kano, 2018; Verbeke, 2003; and from the cases we analyzed.).

Dark side factors	*Governance mechanisms*		
	Formal Safeguards	Relational Tools	Entrepreneurship-oriented Mechanisms
Bounded Rationality	Organizational routines to enable environmental scanning and learning	Infusion of higher diversity on corporate Boards; informal advice-seeking by specialized Board committees	Dynamic optimizing – lead firm valuing efforts to seek joint solutions for deriving value resulting from (presently) non-core activities
Ex Ante Opportunism	Structured search on partners' reputation for honest dealings; contractual safeguards (e.g., price hedging in supplier contracts); incentive alignment (e.g., focus on mutually beneficial clauses into contracts)	Pre-contract informal stakeholder management	Search for partners with identifiable entrepreneurial and innovative capabilities
Ex Post Opportunism	Efficient information flows and monitoring; contractual safeguards (e.g., amendments and performance action plans); options of legal action and abrogation of contracts	Attention to relational norms (e.g., voluntary information exchange)	Redirecting partners' self-interest seeking towards mutually beneficial innovations through the creation of a cooperative environment (can be linked to more formal property rights and incentives)
Reprioritization	Organizational routines to increase cognitive proximity; alignment of expectations through joint long-range planning; milestones; regular reviews; formal negotiations to resolve conflicting commitments *ex ante*	Mechanisms for goal alignment, e.g., through use of expatriates to bridge cognitive distance; informal negotiations to resolve conflicting commitments *ex ante*	Channeling partners' capacity to drive desired innovation through bilateral and multilateral persuasion
Over-commitment	Organizational routines to limit impulsivity and self-assessment bias/overextension (e.g., limits on new activities; joint goal setting)	Informal feasibility checks on partner ability to meet commitments	Realigning partners' focus on their unique areas of expertise
Regression	Training to help unlearn old, dysfunctional practices; IT enabled information collection, analysis, and exchange; discontinuing contracts	Change management (e.g., communicating superiority of new practices; relationship building, personal leadership, mentorship); Impression management (e.g., motivating to identify with new routines)	Guided knowledge transfer, e.g., through access to global supply networks/co-development in partner areas of competence - innovation
Divided Engagement	Formal coordination, including price incentives and penalties; internal markets for standard products; inter-divisional committees; comprehensive reviews; options to discontinue contracts	Informal coordination mechanisms (e.g., arbitration and communication); development of common identity and culture (e.g., inter-personal relationships and team building)	Joint crafting of goals, practices, processes, performance measures to increase innovations; internal markets for innovations and new products

recognize that individual governance tools may help to alleviate more than one dark side dimension, but we attempted to match each governance tool to its targeted dark side.

Extant GVC research has generally focused on identifying and categorizing value chains, with little attention paid to micro-foundational challenges and how MNEs deal with them. We used a NIT lens to study dark side outcomes in GVCs caused by micro-level factors such as bounded rationality and bounded reliability, and the governance tools available to lead MNEs to alleviate them. Lead MNEs often need new organizational capabilities to govern external GVC relationships. Buckley (2009a, p. 233) suggests that "in managing outside the boundaries of the firm, with subcontractors and alliance partners, skills beyond 'command and control' are vital". Those skills include the ability to manage better the boundaries between the firm and GVC partners; developing culturally aware managers with a global mindset and an entrepreneurial orientation; and crafting organizations with great absorptive capacity and flexibility (Eriksson et al., 2014). These capabilities are undoubtedly useful and can be strengthened over time with experiential learning, but we advance that it is governance that most matters. While not every possible dysfunctional outcome arising from bounded rationality and bounded reliability can be accurately predicted, we provide a conceptual framework to anticipate the main types of dysfunction and suggest a panoply of governance mechanisms to address them.

Most GVC research also implicitly assumes that the lead-MNE will provide entrepreneurial guidance to its GVC partners (Kano & Oh, 2020; Kano et al., 2020). A variety of mechanisms can incentivise GVC partners to pursue mutually beneficial innovations and assure the GVC long-term competitive advantage. These mechanisms can help prevent commitment failures, both independently and as complements to formal safeguards and relational mechanisms.

6. Limitations and future research

We would like to see future research build on the framework described in Table 2 and assess the relative importance of each governance mechanism for reducing dark side outcomes in GVCs. Some mechanisms may be complementary, some substitutes, and some able to address more than one dark-side outcome. Future studies might identify other sources of commitment failures and possible additional remedies. While we have primarily discussed contracts with 'first tier' GVC partners, we must not lose sight of the fact that first tier partners have themselves subcontractors and that that calls for analyzing dark side outcomes and governance mechanisms in these lower tiers as well.

Finally, future research could also use larger samples of MNEs in specific industries and regions, for example in the electronics industry where lead-MNEs have extensive GVC links with South-East Asian suppliers, and in food processing where many MNEs have long-term contracts with South American firms. A single governance tool is probably insufficient to avoid dark side outcomes; a more likely scenario is that using bundles of tools is more efficient. Fuzzy set qualitative comparative analysis could be used to identify the efficient configurations of governance tools (Fainshmidt et al., 2020; Verbeke et al., 2019).

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References

Ambrosini, V., Bowman, C., & Collier, N. (2010). Using teaching cases for management research. *Strategic Organization, 8*(3), 206–229. https://doi.org/10.1177/1476127010374254.

Anderson, E., & Gatignon, H. (1986). Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies, 17*(3), 1–26. https://doi.org/10.1057/palgrave.jibs.8490432.

Antràs, P., & Chor, D. (2013). Organizing the global value chain. *Econometrica, 81*(6), 2127–2204. https://doi.org/10.3982/ECTA10813.

Benito, G. R. G., Petersen, B., & Welch, L. (2009). Towards more realistic conceptualisations of foreign operation modes. *Journal of International Business Studies, 40*, 1455–1470. https://doi.org/10.1057/jibs.2009.54.

Buckley, P., & Casson, M. (1976). *The future of the multinational enterprise*. London: Homes & Meier.

Buckley, P. J. (2009a). Internalisation thinking: From the multinational enterprise to the global factory. *International Business Review, 18*(3), 224–235. https://doi.org/10.1016/j.ibusrev.2009.01.006.

Buckley, P. J. (2009b). The impact of the global factory on economic development. *Journal of World Business, 44*(2), 131–143. https://doi.org/10.1016/j.jwb.2008.05.003.

Buckley, P. J. (2011). International integration and coordination in the global factory. *Management International Review, 51*, 269–283. https://doi.org/10.1007/s11575-011-0075-2.

Buckley, P. J. (2016). The contribution of internalisation theory to international business: New realities and unanswered questions. *Journal of World Business, 51*(1), 74–82. https://doi.org/10.1016/j.jwb.2015.08.012.

Buckley, P. J., Craig, T. D., & Mudambi, R. (2019). Time to learn? Assignment duration in global value chain organization. *Journal of Business Research., 103*, 508–518. https://doi.org/10.1016/j.jbusres.2018.01.011.

Buckley, P. J., & Strange, R. (2015). The governance of the global factory: Location and control of world economic activity. *The Academy of Management Perspectives, 29*(2), 237–249. https://doi.org/10.5465/amp.2013.0113.

Cantwell, J., Dunning, J. H., & Lundan, S. M. (2010). An evolutionary approach to understanding international business activity: The co-evolution of MNEs and the institutional environment. *Journal of International Business Studies, 41*(4), 567–586. https://doi.org/10.1057/jibs.2009.95.

Casson, M. (1979). *Alternatives to the multinational enterprise*. Springer.

Casson, M. (2003). Entrepreneurship, business culture and the theory of the firm. In *Handbook of entrepreneurship research* (pp. 223–246). Springer.

Coe, N., & Yeung, H. W. (2015). *Global production networks, theorizing economic development in an interconnected world*. Oxford University Press.

Coe, N., & Yeung, H. W. (2019). Global production networks: Mapping recent conceptual developments. *Journal of Economic Geography, 19*(4), 775–801. https://doi.org/10.1093/jeg/lbz018.

D'Cruz, J. R., & Rugman, A. (1992). Business networks for international competitiveness. *Business Quarterly, 54*(Spring), 101–107.

D'Cruz, J. R., & Rugman, A. M. (1993). Developing international competitiveness: The five partners model. *Business Quarterly, 58*(2), 60–72.

Dieleman, M. (2018). IOI's global challenge: Moving up the palm oil value chain. *Ivey Publishing Case 9B18M028*.

Eriksson, T., Nummela, N., & Saarenketo, S. (2014). Dynamic capability in a small global factory. *International Business Review, 23*(1), 169–180. https://doi.org/10.1016/j.ibusrev.2013.03.007.

Fainshmidt, S., Witt, M. A., Aguilera, R. V., & Verbeke, A. (2020). The contributions of qualitative comparative analysis (QCA) to international business research. *Journal of International Business Studies, 51*(4), 455–466.

Fuller, C., & Phelps, N. A. (2018). Revisiting the multinational enterprise in global production networks. *Journal of Economic Geography, 18*(1), 139–161. https://doi.org/10.1093/jeg/lbx024.

Geok, W.B. & Chua, W. (2012). Cultural Challenges of Integration: Value Creation and Daiichi Sankyo's Indian Acquisition. Harvard Business School Case NTU027-PDF-ENG.

Gereffi, G. (1994). *The organization of buyer-driven global commodity chains: How US retailers shape overseas production networks. Commodity chains and global capitalism*. Westport, CT: Praeger.

Gereffi, G. (2001). Shifting governance structures in global commodity chains, with special reference to the internet. *American Behavioral Scientist, 44*(10), 1616–1637. https://doi.org/10.1177/00027640121958087.

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy, 12*(1), 78–104. https://doi.org/10.1080/09692290500049805.

Gereffi, G., & Korzeniewicz, M. (1994). *Commodity chains and global capitalism*. Westport, CT: Praeger.

Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal, 29*(13), 1465–1474. https://doi.org/10.1002/smj.722.

Goldberg, R. A., & Fries, L. A. (2012). Nestlé: Agricultural material sourcing within the concept of creating shared value (CSV). *Harvard Business School Case*, 913–1406.

Gooris, J., & Peeters, C. (2016). Fragmenting global business processes: A protection for proprietary information. *Journal of International Business Studies, 47*(5), 535–562. https://doi.org/10.1057/jibs.2015.44.

Grøgaard, B., & Verbeke, A. (2012). Twenty key hypotheses that make internalization theory the general theory of international strategic management. In Handbook of research on international strategic management. Edward Elgar Publishing.

Grossman, G. M., & Rossi-Hansberg, E. (2008). Trading tasks: A simple theory of offshoring. *American Economic Review, 98*(5), 1978–1997. https://doi.org/10.1257/aer.98.5.1978.

Harrison, J. R., & March, J. G. (1984). Decision making and postdecision surprises. *Administrative Science Quarterly, 29*(1), 26–42. https://doi.org/10.2307/2393078.

Hau, L. & Melvin, S. (2015). Everything is Connected: A New Era of Sustainability at Li & Fung. Stanford Business School Case GS-87.

Hawkins, T. G., Wittmann, C. M., & Beyerlein, M. M. (2008). Antecedents and consequences of opportunism in buyer–supplier relations: Research synthesis and new frontiers. *Industrial Marketing Management, 37*(8), 895–909. https://doi.org/10.1016/j.indmarman.2007.05.005.

Heide, J. B., & John, G. (1992). Do norms matter in marketing relationships? *Journal of Marketing, 56*(2), 32–44. https://doi.org/10.1177/002224299205600203.

Hennart, J.-F. (1982). *A theory of multinational enterprise*. University of Michigan.

Hennart, J.-F. (1986). What is internalization? *Weltwirtschaftliches Archiv, 122*, 791–804. https://doi.org/10.1007/BF02707861.

Hennart, J.-F. (1993). Explaining the swollen middle: Why most transactions are a mix of market and hierarchy. *Organization Science, 4*(4), 529–547.

Hennart, J.-F. (2009). Down with MNE-centric theories! Market entry and expansion as the bundling of MNE and local assets. *Journal of International Business Studies, 40*(9), 1432–1454. https://doi.org/10.1057/jibs.2009.42.

Heugens, P. P., & Mol, M. J. (2005). *So you call that research? Mending methodological biases in strategy and organization departments of top business schools*. Thousand Oaks, CA: Sage Publications Sage CA.

Hillemann, J., & Verbeke, A. (2014). Internalization theory and the governance of the global factory. In *Multinational enterprises, markets and institutional diversity* (pp. 27–48). Emerald Group Publishing Limited.

Humphrey, J. (1995). Industrial reorganization in developing countries: From models to trajectories. *World Development, 23*(1), 149–162. https://doi.org/10.1016/0305-750X(94)00104-7.

Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies, 36*(9), 1017–1027. https://doi.org/10.1080/0034340022000022198.

Johnson, R. C., & Noguera, G. (2012). Accounting for intermediates: Production sharing and trade in value added. *Journal of International Economics, 86*(2), 224–236. https://doi.org/10.1016/j.jinteco.2011.10.003.

Kano, L. (2018). Global value chain governance: A relational perspective. *Journal of International Business Studies, 49*, 684–705. https://doi.org/10.1057/s41267-017-0086-8.

Kano, L., & Oh, C. H. (2020). Global value chains in the post-COVID world: Governance for reliability. *Journal of Management Studies, 57*(8), 1773–1777.

Kano, L., Tsang, E. W., & Yeung, H. W. (2020). Global value chains: A review of the multi-disciplinary literature. *Journal of International Business Studies, 1–46*. https://doi.org/10.1057/s41267-020-00304-2.

Kano, L., & Verbeke, A. (2015). The three faces of bounded reliability: Alfred Chandler and the micro-foundations of management theory. *California Management Review, 58*(1), 97–122. https://doi.org/10.1525/cmr.2015.58.1.97.

Kogut, B., & Zander, U. (1993). Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies, 24*, 625–645. https://doi.org/10.1057/palgrave.jibs.8490248.

Liang, N., & Wang, J. (2004). Implicit mental models in teaching cases: An empirical study of popular MBA cases in the United States and China. *Academy of Management Learning and Education, 3*, 397–413.

Lipton, P. (2004). *Inference to the best explanation*. Taylor & Francis.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review, 21*(1), 135–172. https://doi.org/10.5465/amr.1996.9602161568.

Mantere, S., & Ketokivi, M. (2013). Reasoning in organization science. *Academy of Management Review, 38*(1), 70–89. https://doi.org/10.5465/amr.2011.0188.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science, 29*(7), 770–791. https://doi.org/10.1287/mnsc.29.7.770.

Miller, D., & Friesen, P. H. (1977). Strategy-making in context: Ten empirical archetypes. *Journal of Management Studies, 14*(3), 253–280. https://doi.org/10.1111/j.1467-6486.1977.tb00365.x.

Mudambi, R. (2008). Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography, 8*(5), 699–725. https://doi.org/10.1093/jeg/lbn024.

Mudambi, R., Saranga, H., & Schotter, A. (2017). Mastering the make-in-India challenge. *MIT Sloan Management Review, 58*(4), 59–66.

Narula, R. (2014). Foreign direct investment as a driver of industrial development: Why is there so little evidence?. In *International Business and Sustainable Development* (pp. 45–67). Emerald Group Publishing Limited.

Narula, R., & Verbeke, A. (2015). Making internalization theory good for practice: The essence of Alan Rugman's contributions to international business. *Journal of World Business, 50*, 612–622. https://doi.org/10.1016/j.jwb.2015.08.007.

Nielsen, B. B., Pedersen, T., & Pyndt, J. (2009). Ribe Maskinfabrik A/S - Developing New Business Areas. *Ivey Publishing Case 9B09M012*.

Nohria, N., & Ghoshal, S. (1997). *The differentiated network: Organizing multinational corporations for value creation*. Jossey-Bass Publishers.

Ouchi, W. G. (1980). Markets, bureaucracies, and clans. *Administrative Science Quarterly, 129–141*. https://doi.org/10.2307/2392231.

Rangan, V. K., Toffel, M. W., Dessain, V., & Lenhardt, J. (2014). Sustainability at IKEA Group. *Harvard Business School Case*, 515–1033.

Rugman, A. M. (1981). *Inside the multinationals: The economics of internal markets*. London: Croom Helm.

Rugman, A. M., & D'Cruz, J. R. (2000). *The theory of the flagship firm. Cooperative Strategy: Economic, Business and Organizational Issues*. Oxford University Press.

Rugman, A. M., D'Cruz, J. R., & Verbeke, A. (1995). Internalisation and de-internalisation: Will business networks replace multinationals. In G. Boyd (Ed.), *Competitive and cooperative macromanagement: The challenge of structural interdependence* (pp. 107–128). Aldershot: Edward Elgar.

Rugman, A. M., & Verbeke, A. (1992). A note on the transnational solution and the transaction cost theory of multinational strategic management. *Journal of International Business Studies, 23*(4), 761–771. https://doi.org/10.1057/palgrave.jibs.8490287.

Rugman, A. M., & Verbeke, A. (2002). Edith Penrose's contribution to the resource-based view of strategic management. *Strategic Management Journal, 23*(8), 769–780. https://doi.org/10.1002/smj.240.

Rugman, A. M., & Verbeke, A. (2003). Extending the theory of the multinational enterprise: Internalization and strategic management perspectives. *Journal of International Business Studies, 34*(2), 125–137. https://doi.org/10.1057/palgrave.jibs.8400012.

Rugman, A. M., & Verbeke, A. (2004). A perspective on regional and global strategies of multinational enterprises. *Journal of International Business Studies, 35*(1), 3–18. https://doi.org/10.1057/palgrave.jibs.8400073.

Rugman, A. M., & Verbeke, A. (2005). Towards a theory of regional multinationals: A transaction cost economics approach. *MIR: Management International Review*, 5–17.

Rugman, A. M., Verbeke, A., & Yuan, W. (2011). Re-conceptualizing Bartlett and Ghoshal's classification of national subsidiary roles in the multinational enterprise. *Journal of Management Studies, 48*(2), 253–277. https://doi.org/10.1111/j.1467-6486.2010.00969.x.

Shah, R., Singh, G., & Puri, S. (2017). Volkswagen Emission Scandal: Reputation Recovery and Recall Strategy. Ivey Publishing Case 9B17M052.

Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal, 50*(1), 20–24. https://doi.org/10.5465/amj.2007.24160882.

Simon, H. A. (1962). The architecture of complexity. *Proceedings of the American Philosophical Society, 106*, 467–482.

South China Morning Post (2007). RM Group Strengthens ties in 'hot market'. Document SCMP000020071115e3bg0003l. Accessed through Factivia on December 17, 2019.

Subramanian, R. (2015). The Children's Place, Inc.: Challenges in a Post-Rana Plaza World. Ivey Publishing Case 9B15M062.

Subramanian, S., Dhanaraj, C., & Branzei, O. (2011a). Bayer Cropscience in India (A): Against Child Labor. Ivey Publishing Case 9B10M061.

Subramanian, S., Dhanaraj, C., & Branzei, O. (2011b). Bayer Cropscience in India (b): Value-Driven Strategy. Ivey Publishing Case 9B10M062.

Teece, D. J. (1977). Technology transfer by multinational firms: The resource cost of transferring technological know-how. *The Economic Journal, 87*(346), 242–261. https://doi.org/10.2307/2232084.

Teece, D. A., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z.

Teece, D. A. (2014). A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies, 45*, 8–37. https://doi.org/10.1057/jibs.2013.54.

Van Maanen, J., Sørensen, J. B., & Mitchell, T. R. (2007). The interplay between theory and method. *Academy of Management Review, 32*(4), 1145–1154. https://doi.org/10.5465/amr.2007.26586080.

Verbeke, A. (2003). The evolutionary view of the MNE and the future of internalization theory. *Journal of International Business Studies, 34*(6), 498–504. https://doi.org/10.1057/palgrave.jibs.8400062.

Verbeke, A., Ciravegna, L., Lopez, L. E., & Kundu, S. K. (2019). Five configurations of opportunism in international market entry. *Journal of Management Studies, 56*(7), 1287–1313.

Verbeke, A., & Greidanus, N. S. (2009). The end of the opportunism vs trust debate: Bounded reliability as a new envelope concept in research on MNE governance. *Journal of International Business Studies, 40*(9), 1471–1495. https://doi.org/10.1057/jibs.2009.44.

Verbeke, A., & Kano, L. (2012). An internalization theory rationale for MNE regional strategy. *Multinational Business Review, 20*(2), 135–152. https://doi.org/10.1108/15253831211238212.

Verbeke, A., & Kano, L. (2016). An internalization theory perspective on the global and regional strategies of multinational enterprises. *Journal of World Business, 51*(1), 83–92. https://doi.org/10.1016/j.jwb.2015.08.014.

Verbeke, A., & Kenworthy, T. P. (2008). Multidivisional vs metanational governance of the multinational enterprise. *Journal of International Business Studies, 39*(6), 940–956. https://doi.org/10.1057/palgrave.jibs.8400344.

Verbeke, A., Zargarzadeh, M. A., & Osiyevskyy, O. (2014). Internalization theory, entrepreneurship and international new ventures. *Multinational Business Review, 22*(3), 246–269. https://doi.org/10.1108/MBR-06-2014-0023.

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organization.*. Free Press.

Yeung, H. W., & Coe, N. (2015). Toward a dynamic theory of global production networks. *Economic Geography, 91*(1), 29–58. https://doi.org/10.1111/ecge.12063.

Yin, R. (2018). *Case study research and applications: design and methods*. Sage Publications Inc.

Zhang, Y., & Gregory, M. (2011). Managing global network operations along the engineering value chain. *International Journal of Operations & Production Management, 31*(7), 736–764. https://doi.org/10.1108/01443571111144832.

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