SPECIAL ISSUE

Relational dynamics in information technology outsourcing: An integrative review and future research directions

Elvis Ngah | Brian Tjemkes | Henri Dekker

School of Business and Economics, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands

Correspondence
Elvis Ngah, School of Business and Economics, Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands.
Email: ngahelvis@gmail.com

Abstract

This paper reviews the literature on relational dynamics in information technology outsourcing (ITO) relationships, a type of interorganizational relationship (IOR) between client and vendor firms that can vary considerably in complexity. While relational dynamics are understood to reflect changes in an IOR ex-post contract which can substantially influence relationship performance and development, prior IOR research is limited in its conceptualization. The extensive ITO literature offers fertile ground for exploring this limitation but has advanced different conceptualizations and is fragmented in empirical findings, which warrants a systematic assessment. We conduct an integrative review of 127 peer-reviewed empirical studies to enhance our understanding of the constituents of relational dynamics. The findings reveal that relational dynamics involve the occurrence and management of tensions within and across four relationship development stages (transactional, strategic, transformational, and termination). For each stage and between stages, we identify the main tension, the firms' strategies to manage the tension, and the outcomes. Based on these findings, we develop an integrative framework that offers a comprehensive and multifaceted conceptualization of relational dynamics, revealing that as ITO arrangements progress (or regress), partner firms are confronted with structural and transitional tensions inherent in relationship stability and instability. Based on this framework, we offer future directions for developing a more comprehensive understanding of relational dynamics in ITO and, more broadly, IORs.

INTRODUCTION

Interorganizational studies have conceptualized relational dynamics as any change in the form or state of an interorganizational relationship (IOR) over time ex-post contract (Majchrzak et al., 2015; Van de Ven and Poole, 1995). This conceptualization includes changes in relationship characteristics (e.g., trust and objectives) and patterns of changes (e.g., spirals and feedback cycles) (Faems et al., 2008; Lumineau and Oliveira, 2018; Vlaar et al., 2007). Recognizing the implications of relational dynamics for relationship performance and evolution, scholars have repeatedly called for studies on the concept (Brattström and Faems, 2020; Das and Teng, 2000). The few review

studies that have been conducted on the topic indicate that instability is inherent in relational dynamics. For example, Majchrzak et al. (2015) advanced distinct patterns of relational dynamics with varying complexity associated with instability. Similarly, Mamédio et al. (2019) suggested that, to cope with unstable environments, firms can develop relational dynamic capabilities through strategic alliances. Yet, our analysis of the literature on information technology outsourcing (ITO), a variably complex IOR type that can exist in different forms that are analogous to various IORs, suggests that relational dynamics are characterized by both instability and stability. This indicates the need to understand the concept of relational dynamics further, triggering our quest into the ITO literature for insights that can open new directions in the IOR literature to advance the topic. Accordingly, we systematically review the literature on relational dynamics in ITO arrangements.

Relational dynamics—changes in the interfirm relationship ex-post contract whereby initial and emerging conditions trigger partner firms to take specific actions that lead to outcomes on relationship objectives and development across stages—are salient in ITO (Akkermans et al., 2020; Heiskanen et al., 2008). ITO is the practice by which a client firm contracts a vendor to deliver IT(-enabled) products/services that may have previously been provided in-house. As a widely adopted form of interorganizational collaboration spanning a broad range of potential objectives, ITO relationships include cost-saving (buyer–seller) transactions, strategic partnerships, and transformational collaborations, analogous to IORs such as licensing agreements, R&D partnerships, and alliances, respectively. ITO relationships can also intensify (or subdue), transitioning from one of these forms to another, signifying a different level of interorganizational engagement, such as in the UPS–Motorola (Zviran et al., 2001) and Diageo–Infosys (Oshri et al., 2015) cases, where initial success enabled the engagements to intensify and evolve from cost-saving relationships to innovative partnerships. This analogy of ITO relationships to various IOR forms, and the ability of ITO relationships to evolve from one form to another, makes ITO a fertile ground for studying relational dynamics between partner firms.

Extant ITO studies on relational dynamics are ambiguous in their definitions (if any) and foci, inhibiting the development of a systematic understanding and conceptualization. Some studies have broadly conceptualized relational dynamics as relationship development through multiple stages, including transactional exchange, strategic partnership, transformational collaboration, and termination (Gottschalk and Solli-Saether, 2006; Moon et al., 2010). Other studies have adopted a narrow conceptualization, focusing on relational dynamics within one

development stage (Law, 2018; Rottman, 2008) or without specifying the stage the analysis relates to (Könning et al., 2020; Su, 2015). Some studies have even adopted a static approach by investigating relationships between ITO motivations, structural conditions, choices, and performance (Goo et al., 2009; Susarla et al., 2010). While this conceptual diversity is valuable for understanding different aspects of relational dynamics within and across relationship stages, its fragmentation limits a more holistic conceptual development.

Our review aims to uncover two fundamental barriers to a paradigmatic development of relational dynamics: (1) limitations in its conceptualization for IORs by associating it only with instability and downplaying stability; and (2) while ITO provides fertile ground for enhancing our understanding of relational dynamics, its conceptualization across studies is fragmented. We conclude that this warrants a broader conceptualization based on an integrative perspective. Therefore, our study integrates prior research on ITO relationship dynamics to address the following research question: *What are relational dynamics in ITO arrangements, and what are their constituents?* We adopt a stage-based relationship development framework (Clampit et al., 2015; Kedia and Lahiri, 2007) to systematically classify, analyse, and synthesize 127 empirical articles identified in the ITO literature, distinguishing four development stages. Each stage represents a specific client–vendor interface: transactional, strategic, transformational, and termination. For each stage and interstage, we found that relational dynamics constitute the manifestation of a dominant tension between opposing initial/emerging conditions, the firms' strategies to manage the tension, and the outcomes.

Our findings indicate that intra-stage tensions are structural, encompassing a knot; that is, the tensions co-occur and are inseparably entangled and interdependent, with a focus on the objective of the stage (Sheep et al., 2017). However, each stage involves a different knot—a different set of knotted tensions with a different focus. Interstage tensions, by contrast, are transitional (temporal). Thus, relational dynamics are associated with managing structural intra-stage and transitional interstage tensions, invoking shifts between relationship stability and instability. These insights provide the basis for establishing an integrative model— a tension perspective of relational dynamics in ITO arrangements. With this model, we propose a pathway to developing a comprehensive understanding of relational dynamics in ITO and, more broadly, in IORs, identifying gaps in the literature and suggesting themes that can guide future research.

Our review makes three theoretical contributions. First, by advancing a tension perspective, our study offers a new tension-based conceptualization of relational dynamics.

This provides an alternative and complementary perspective to frameworks that consider dynamics driven by relationship characteristics and patterns (Faems et al., 2008; Lumineau and Oliveira, 2018; Vlaar et al., 2007). Second, by relying on the complex setting of ITO, which exists in different forms analogous to various IOR types, our review offers an understanding that relational dynamics are associated with relationship stability and instability. This extends prior conceptualizations that associate relational dynamics principally with instability (e.g., de Rond and Bouchikhi, 2004; Majchrzak et al., 2015). Third, our integrative framework, which is embedded in the empirical ITO literature on relational dynamics, complements and extends the IOR literature. Prior IOR research has advanced tension perspectives in IORs (Das and Teng, 2000; Jarzabkowski et al., 2021; Niesten and Stefan, 2019). Our integrative framework extends these insights by comprehensively conceptualizing tensions as structural and transitional, including their interplay.

REVIEW SCOPE AND ANALYTICAL FRAMEWORK

Examining ITO for understanding relational dynamics

The ITO literature distinguishes two primary forms of ITO—sourcing IT services/products from an external vendor (Brown and Wilson, 2005) and transferring internal IT service functions to an external vendor (Mol and Kotabe, 2011). Similar to other studies combining both forms (Domberger et al., 2000; Kern and Willcocks, 2000), we refer to ITO as the practice whereby a client organization contracts a vendor to effectively deliver IT(-enabled) services/products that the client's in-house staff may have previously provided. These include applications development and maintenance, systems operations, networks and telecommunications management, end-user computing support, systems planning and management, application software, automation tools, IT hardware, and IT-enabled services (Liang et al., 2016; Pankowska, 2019; Willcocks et al., 2017).

ITO relationships are a variably complex type of IOR (Bui et al., 2019; Gopalakrishnan and Zhang, 2019; Silva et al., 2020). IT products and services pervade, affect, and shape organizational processes, with ITO relationships manifesting contradictions, transitions, and evolutions over time due to various factors, including high and changing levels of information asymmetry, interdependence, and digital transformation. For example, before outsourcing in-house IT services, clients usually have more information about the services and can choose from multiple vendors. Once a vendor is selected and contracted, and information is transferred, the vendor gradually gains an information advantage. The increasing information asymmetry increases the client's dependency on the vendor, which takes greater responsibility and control in supplying the IT service, disabling the client from easily switching vendors or terminating the relationship (Heiskanen et al., 2008). This dependence may evolve into co-dependence if both parties foster the relationship into an alliance. Digital transformation involves the adoption of IT in driving strategic initiatives for businesses, forcing their information systems to evolve from transaction-based to engagement-based, and exerting pressure on vendors to enhance the services and systems they provide (Pankowska, 2019).

ITO relationships are analogous to various IORs—they can exist in various forms, each resembling a different type of IOR. Given the variations of IT (including services, software, and hardware) (Beulen and Ribbers, 2021), the variations in ITO objectives, and the varying complexity in ITO engagements, ITO can take place in various forms depending on the intensity or level of the engagement. ITO can involve arm's-length cost-saving arrangements (Bahli and Rivard, 2013; Lioliou et al., 2019), with an engagement level similar to arm's-length IORs, such as licensing agreements and HR outsourcing. ITO can also involve strategic partnerships (Oshri et al., 2015; Teo and Bhattacherjee, 2014), exhibiting a higher engagement level resembling R&D collaborations (Parmigiani and Rivera-Santos, 2011). Further, ITO can entail transformational alliances, where ITO firms ally and combine resources to pursue specific market opportunities (Murthy et al., 2016; Rottman, 2008), similar to alliances such as consortia and joint venture engagements (Brattström and Faems, 2020; Parmigiani and Rivera-Santos, 2011). Over time, the level of engagement may go up or down, enabling an ITO relationship to evolve from one form of IOR into a different form. With this analogy, ITO presents an excellent context for further understanding relational dynamics in IORs.

Relational dynamics in ITO

ITO studies have drawn on three dominant perspectives to study relational dynamics. A first perspective views relational dynamics as changes related to governing and controlling the relationship ex-post contract, which can contribute to success or failure (Cao et al., 2013; Delen et al., 2019; Gopal and Koka, 2012). The second perspective views relational dynamics from changes in the underlying exchange mechanisms between client and vendor resources (Kern and Willcocks, 2000; Lee and Choi, 2011; Swar et al., 2012). The third perspective considers

relational dynamics as evolution in relationship form, signifying growth/regress in stages (Akkermans et al., 2020; Kern and Blois, 2002; Natovich, 2003). We reconcile these perspectives to conceptualize relational dynamics in ITO as *changes in the interfirm relationship ex-post contract whereby initial and emerging conditions trigger specific responses from the partner firms, leading to outcomes on relationship objectives and development across stages.* This conceptualization has three implications: relational dynamics take place (1) ex-post contract; (2) within stages, each stage subject to a specific manifestation of relational dynamics accounting for relationship objective outcomes (success/failure); and (3) across stages accounting for relationship development (progress/regress).

Analytical framework

We build on the stage-based model of outsourcing relationships, which differentiates three stages—transactional, strategic, and transformational (Clampit et al., 2015; Kedia and Lahiri, 2007)—with increasing levels of engagement, dependence, and relationship-specific investments, that is, credible commitments (Williamson, 1983). The transactional stage is short-term-oriented, motivated for the client by immediate cost savings and efficiency using the vendor's economies of scale. At the strategic stage, cost efficiency remains relevant but is no longer dominant as the client seeks strategic benefits from the ITO to maintain its competitive position (Clampit et al., 2015; Kotabe and Murray, 2004). The emphasis shifts to value creation through innovation by building a long-term relationship that relies on the vendor's strategic resources and the client's capability to manage them (Gottschalk and Solli-Saether, 2006; Levina and Ross, 2003). Thus, the main goal in this stage is the client's cost-effective use of the vendor's innovative resources to enhance its competitive position. The transformational stage is grounded in high levels of trust and co-dependence as the client and vendor become allies in pursuing market share and competitive advantage. Accordingly, they commit and combine resources to achieve mutually compatible goals, co-create value, and redefine and transform their existing business, which either party could not easily achieve alone (Gottschalk and Solli-Saether, 2006).

While an outsourcing relationship can begin at any stage and evolve into any other (Clampit et al., 2015), that is, the level of engagement may increase or decrease over time, it typically begins on (and evolves from) a transactional basis. When the relationship successfully achieves the intended cost savings and efficiency gains, this enhances confidence in the vendor, enabling the relationship to intensify and move to the strategic stage. When success

is achieved at that stage, and the vendor resources enable value creation for the client, this provides a basis for the engagement to intensify further and grow to the transformation stage. Vice versa, failure to achieve stage-based objectives may also result in regression to an earlier stage.

Although the stage-based model accounts for ITO relationships to grow or regress from one of the three stages to another, it neglects relationship termination (Clampit et al., 2015). A terminating relationship faces dynamics and goals that differ from those of the other stages. To account for this, our analysis includes a fourth stage, the termination stage. Termination begins once one party informs the other of its (non)deliberate decision to end the relationship. Deliberate termination may follow from a more neutral reason, for example, if the ITO contract is for a fixed term. In contrast, non-deliberate termination may result from conflicts (Natovich, 2003), such as following from opportunistic behaviour, including cheating, information distortion, shirking of responsibilities, and other forms of dishonesty (Kedia and Lahiri, 2007; Williamson, 1985).

Therefore, our analytical framework, depicted in Figure 1, consists of four stages, and we refer to the stage-specific relational dynamics as *transactional*, *strategic*, *transformational*, and *terminational*. Table 1 summarizes the key aspects of each stage, which guide our review of the literature as we categorize an article under a stage if the article meets the focus and key attributes of that stage. We then discern the relational dynamics for each stage.

METHOD

We used a systematic literature review methodology, employing a replicable, scientific, and transparent process (Tranfield et al., 2003) to answer our research question. We identified publications (collected data) relevant to our research questions, analysed and synthesized the data in the full texts of those publications, and identified themes from the texts.

Data collection

We used the Web of Science (WoS) as our primary data source to collect ITO articles addressing relational dynamics. To identify relevant articles, we conducted a topic search (i.e., search in the title, abstract, and keywords of articles) using the string shown in the PRISMA diagram in Figure 2. This searches for combinations of words, such as '*IT Outsourcing Relational Dynamics*' and '*Changes in Information Systems Offshoring Relationships*', ensuring that non-duplicate articles are obtained. We set the WoS
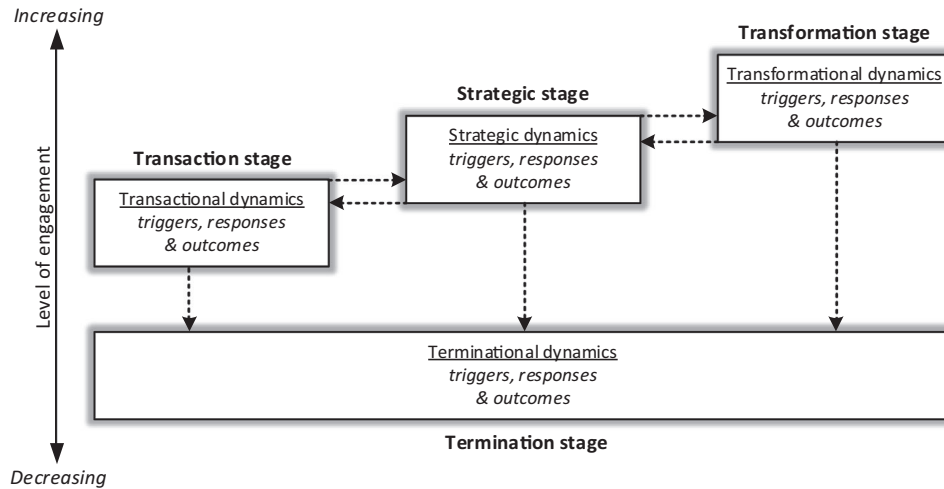
FIGURE 1   Stage-based analytical framework for relational dynamics in ITO.
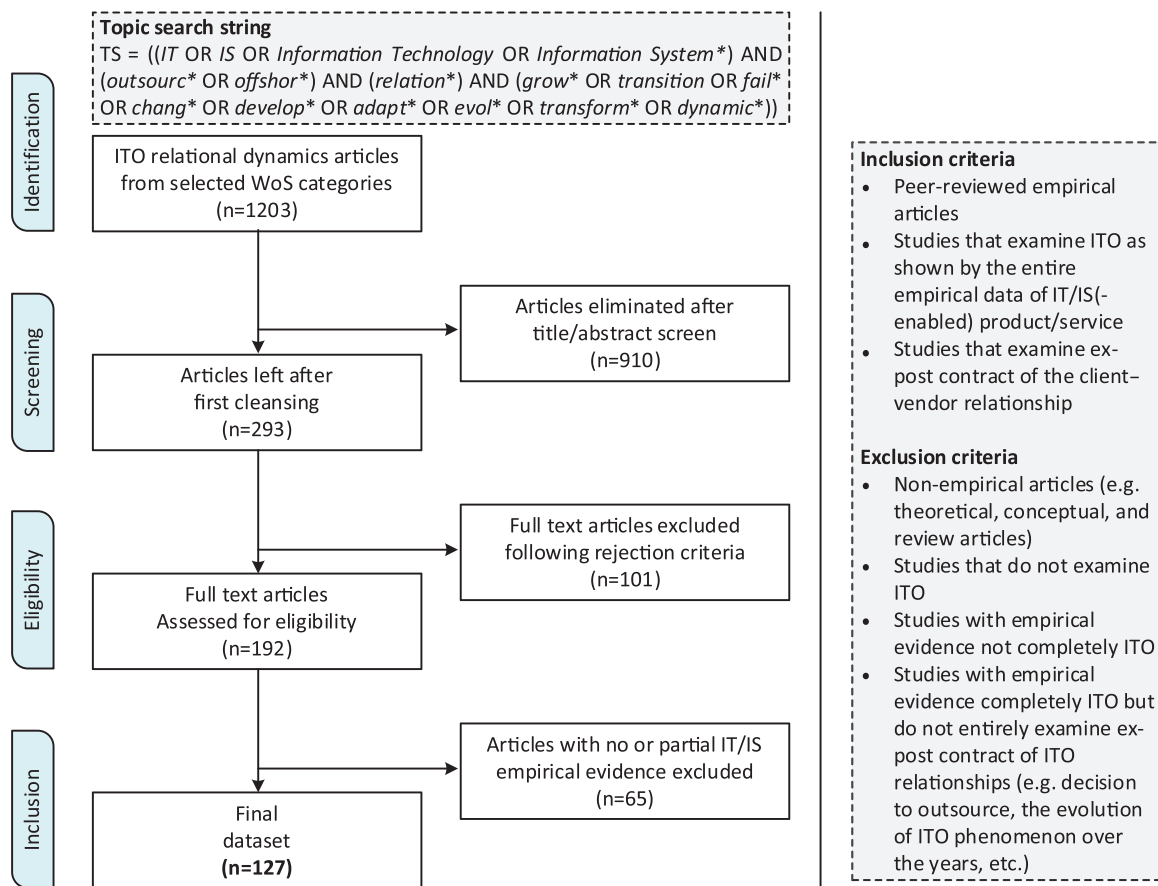

FIGURE 2   Data collection and cleansing procedure. [Colour figure can be viewed at wileyonlinelibrary.com]

document type as 'Article' to exclude literature reviews. We selected the WoS categories of Business, Management, Information Science & Library Science, Operations Research & Management Science, Computer Science & Information Systems, and Computer Science & Interdis-

ciplinary Applications, since ITO articles are published in journals within these categories. The search was conducted with no time limitation, resulting in 1203 non-duplicate non-review articles published up to December 2022.

TABLE 1 Key aspects of ITO development stages

	Transaction stage	Strategic stage	Transformation stage	Termination stage
Focus	Client cost minimization and efficiency by accessing vendor economies of scale	Client innovation using innovative vendor resources aimed at enhancing competitive position	Joint use of client and vendor resources to co-create value and co-achieve competitive advantage	Deliberate or non-deliberate termination of an existing relationship
Description of relational dynamics	Changes with a focus on cost minimization, timeliness, quality, and little or no customization	Changes with a focus on cost-effective innovation	Changes with a focus on joint investments, commitment, and shared value for innovative business transformation	Changes with a focus on ending the engagement
Credible commitments	Less	More	Most	Least
Key attributes	• Cost savings • Efficiency • Short-term	• Cost savings • Innovation • Long-term	• Co-innovation • Interdependence • Long-term	• Termination • Backsourcing • Vendor switching

To cleanse the data, we followed the steps illustrated in Figure 2 while applying the associated inclusion/rejection criteria. First, we screened the titles and abstracts to ensure the articles addressed ITO, which reduced our sample size to 293. Next, we read through the complete texts of the selected articles to retain only articles that address the topic, client–vendor relational dynamics in ITO, reducing our sample size to 192. Finally, we assessed the empirical evidence in the studies and eliminated articles with no (or partial) ITO empirical evidence, bringing our final data set to 127 empirical articles across 51 peer-reviewed journals (see Appendix A). As shown in Figure 3, the included studies indicate an interest in studying the dynamics of ITO engagements since 1995.

Data analysis and synthesis

We imported the data into Excel and coded each article into author(s), year of publication, title, journal of publication, abstract, purpose of the study, theoretical lens(es) used, methodology, client/vendor perspective, and main findings. To capture the relational dynamics through stages, we added four more codes: ITO stage, to classify an article into a stage; triggers, to identify the trigger(s) of dynamics; responses, to capture the specific responses to the triggers; and outcomes, to capture the outcomes after those responses. To minimize bias and ensure coding reliability and validity, the first author coded all the articles, and then each co-author independently coded a subset of the articles. A researcher independent of the study coded a further 40% of the articles. Comparison and discussion helped reconcile differences and fine-tune the coding process. This provided an in-depth understanding of how to code each of the 127 articles.

Table 1 guided our article classification process. For example, if an article examined relationships aimed at short-term goals, cost reduction, or transactional contracting, it was assigned to the transaction stage. If an article examined issues such as long-term cost improvements or access to vendor resources for innovation, it was assigned to the strategic stage. Articles focusing on issues such as value co-creation, profit sharing, and joint ownership were classified under the transformation stage. Articles addressing relationship termination activities/processes were classified under the termination stage. Finally, articles addressing relational dynamics across two or more stages were considered to address relational dynamics across stages.

Our final selection led to the following classification: 27 transaction-stage, 32 strategic-stage, 23 transformation-stage, 5 termination-stage, and 40 across-stage articles. In terms of research design, there is a balanced
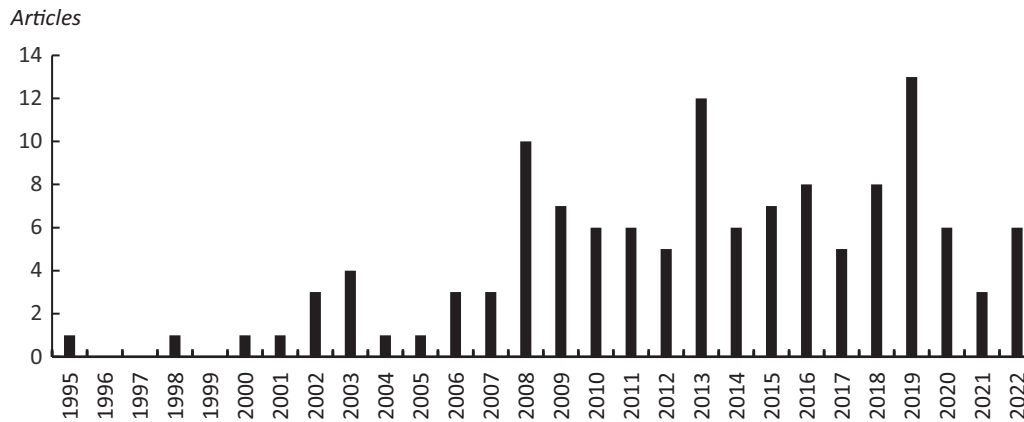
FIGURE 3 Annual number of articles included in the integrative review.
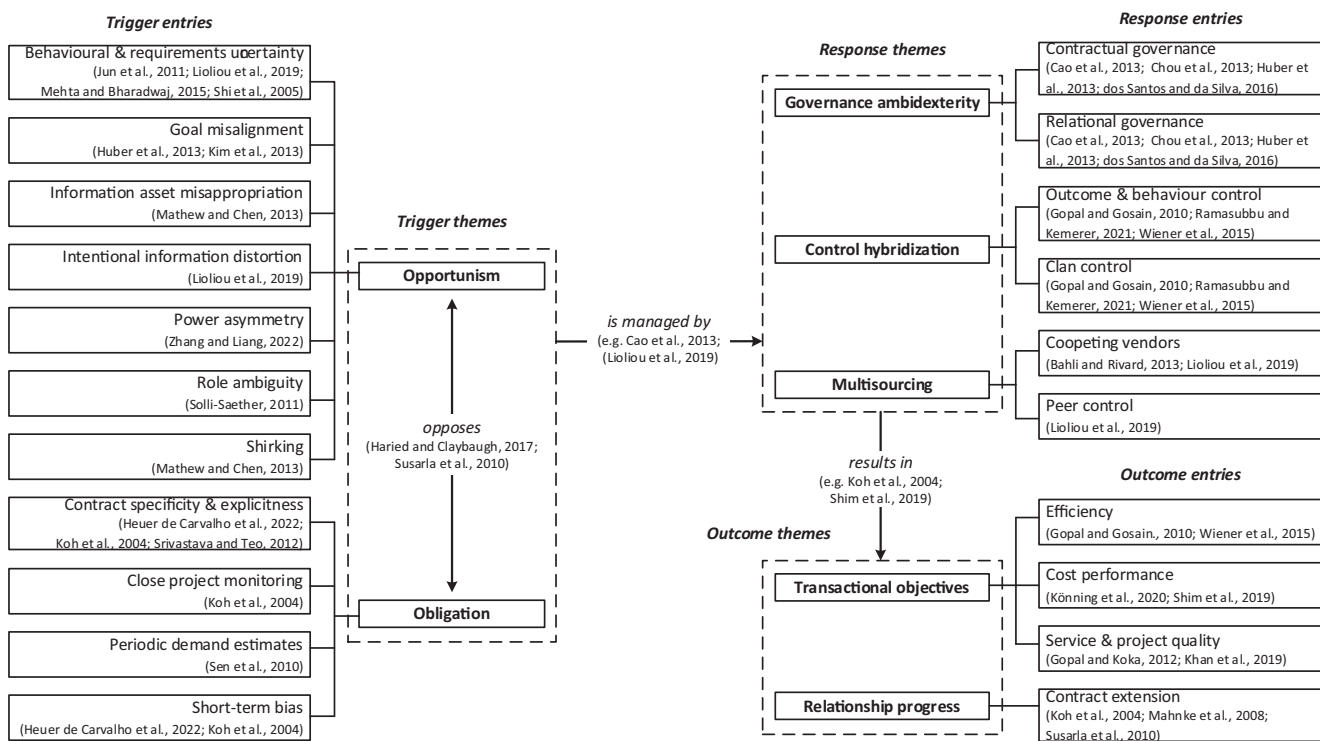

FIGURE 4 Transaction-stage entries for triggers, responses, and outcomes; the derived themes and relationships between them.

distribution of studies employing a qualitative methodology ($n = 59$), such as single/multiple case study, grounded theory, ethnographic study, and narrative research; and studies employing a quantitative methodology ($n = 62$), such as survey analysis, and descriptive methods. The remaining studies ($n = 6$) employed a mixed methodology.

We analysed the articles for relational dynamics (i.e., the entries for the codes: *triggers*, *responses*, and *outcomes*) using the technique of constant comparison (Toronto and Remington, 2020). For each of these codes, we compared the entries one after another, grouped similar entries into themes, and sought out the relationship between themes. As an example, Figure 4 shows how we grouped the entries for the *triggers* identified in transaction-stage articles into two different themes—opportunism and obligation—that oppose each other. Also, we grouped the transaction-stage *response* entries into governance ambidexterity, control hybridization, and multisourcing to manage the opposing trigger themes, resulting in transactional objectives and relationship progress. We also identified the primary theoretical lenses used to address relational dynamics, which are summarized in Appendix A.

Thus, our data synthesis for each stage entailed summarizing, integrating, and cumulating the respective entries (evidence) for the triggers, responses, and outcomes from the articles' findings (Tranfield et al., 2003). This helped us identify the themes and constituents regarding relational dynamics for each stage, and across stages. After identifying the evidence of relational dynamics for articles classified across stages, we again searched through those captured in within-stage articles for similarities because if evidence is overarching, then it is logical to find it within stages as well. If within-stage, we found confirmatory evidence with those across stages, then we synthesized them together for relational dynamics across stages. However, if within-stage evidence was not confirmatory across stages, then the evidence is stage-specific and was synthesized just for that stage.

RESULTS

We found evidence from some studies underpinning each stage that the triggers represent tensions—two orientations (forces) that seem logical individually but opposing when juxtaposed (Smith and Lewis, 2011); and that some studies considered only one orientation (force) of the tension. Consequently, for each stage, we report (1) our construction of the triggers along the two opposing orientations in tension, (2) the partner firms' responses aimed to manage the tension, and (3) the associated outcomes (see Table 2). Similarly, we found that relational dynamics across stages can be overarching (all stages) or interstage (between two specific stages) (see Table 3).

Transactional dynamics

Our analysis of studies classified in the transaction stage indicates that these studies primarily draw on an economic viewpoint to explain transactional stage outcomes (e.g., efficiency gains). Specifically, results indicate that opportunism and obligation oppose each other—a tension managed by governance ambidexterity, control hybridization, and multisourcing.

Trigger: Opportunism vs obligation

Some transaction stage studies (Haried and Claybaugh, 2017; Susarla et al., 2010) allude to the co-existence of opportunism and obligation and that these are in tension. According to these studies, transacting parties are expected to understand and deliver on their obligations and promises stipulated in the ITO contract (e.g.,

cost minimization and efficiency gains). Paradoxically, bounded rationality makes these contracts incomplete, creating space for opportunism (in the form of self-interest-seeking with dishonest behaviour), decreasing efficiency, and increasing transaction costs.

Other studies consider either opportunism or obligation. Opportunism-oriented studies identify factors responsible for cost escalations (Bahli and Rivard, 2013) and performance loss, including behavioural and requirements uncertainty (Jun et al., 2011; Mehta and Bharadwaj, 2015; Shi et al., 2005), power asymmetry (Zhang and Liang, 2022), goal misalignment (Huber et al., 2013; Lioliou et al., 2019), role conflict and ambiguity (Solli-Saether, 2011), shirking, information misappropriation (Mathew and Chen, 2013), and intentional information distortion (Lioliou et al., 2019). However, stipulations in the ITO contract warrant the transacting parties to deliver on their obligations and promises. To this end, obligation-oriented studies identify specificity and explicitness in ITO contracts, short-term bias, periodic demand estimates, and close project monitoring (Heuer de Carvalho et al., 2022; Koh et al., 2004; Sen et al., 2010; Srivastava and Teo, 2012) as initial conditions for achieving transactional ITO objectives.

Tension management

Firms need to manage the *opportunism–obligation* tension to achieve their short-term transactional objectives, for which studies in our selection point to *governance ambidexterity*, *control hybridization*, or *multisourcing*.

Tension management through *governance ambidexterity* refers to balancing contractual and relational governance as a transactional ITO relationship evolves. Contractual governance includes contract specifications (e.g., SLA and project outcomes) and evaluation (dos Santos and da Silva, 2016) to guide and motivate vendor behaviour towards desired performance. Relational governance refers to unwritten practice-based mechanisms that influence client behaviour and satisfy changing business needs. Although these mechanisms may be contradictory (Cao et al., 2013), they can also be complementary (Chou et al., 2013; Huber et al., 2013). Contractual governance dominates when a relationship faces significant exchange hazards, whereas relational governance dominates when the relationship is based on reciprocity.

Control hybridization entails combining formal and informal control mechanisms (Gopal and Gosain, 2010; Ramasubbu and Kemerer, 2021; Wiener et al., 2015) to manage *opportunism–obligation* as an ITO relationship develops. Identified formal control mechanisms include contractually stipulated control of processes and expected

TABLE 2 Main findings of relational dynamics within ITO stages

Relational dynamics within stages	Triggers (opposite forces)	Responses (tension management strategies)	Outcomes (after tension management)	Studies
Transactional dynamics	*Opportunism-oriented* Uncertainty, goal misalignment, information asset misappropriation, intentional information distortion, role ambiguity, shirking, and power asymmetry *Obligation-oriented* Contract specificity, periodic demand estimate, short-term bias, close project monitoring	*Governance ambidexterity* Contractual and relational governance *Control hybridization* Outcome, behaviour, and clan control *Multisourcing* Multiple vendors, coopetition, peer control	*Transactional objectives* Improved performance (efficiency, cost, and quality) *Relationship progress* Contract extension enabling a change in relationship objectives	Bahli and Rivard (2013); Cao et al. (2013); Chou et al. (2013); dos Santos and da Silva (2016); Gopal and Gosain (2010); Gopal and Koka (2012); Haried and Claybaugh (2017); Heuer de Carvalho et al. (2022); Huber et al. (2013); Jun et al. (2011); Khan et al. (2019); Kim et al. (2013); Koh et al. (2004); Könning et al. (2020); Lioliou et al. (2019); Mahnke et al. (2008); Mathew and Chen (2013); Mehta and Bharadwaj (2015); Ramasubbu and Kemerer (2021); Sen et al. (2010); Shi et al. (2005); Shim et al. (2019); Solli-Saether (2011); Srivastava and Teo (2012); Susarla et al. (2010); Wiener et al. (2015); Zhang and Liang (2022)
Strategic dynamics	*Exploitation-oriented* Cost concerns, operational performance, long-term client profitability, vendor profitability *Exploration-oriented* Value proposition, service improvement, new processes, new products	*Cross-level ambidexterity* Interorganizational, organizational, and individual-level ambidexterity *Capability integration* Capability development, alignment, and flexibility	*Strategic objectives* Strategic innovation, developing new markets for the client *Relationship development* Commitment, shared goals and understanding, capability enhancement, and change of the relationship to an alliance	Bapna et al. (2016); Bui et al. (2019); Cai et al. (2020); Chakrabarty et al. (2007); Du and Pan (2013); Goo et al. (2007, 2008, 2009); Gopalakrishnan and Zhang (2019); Gregory et al. (2009); Han et al. (2008); Hsu et al. (2022); Jain and Khurana (2016); Jain et al. (2011); Kannabiran and Sankaran (2011); Karimi-Alaghehband and Rivard (2020); Kim and Chung (2003); Langer and Mani (2018); Langer et al. (2014); Levina and Ross (2003); Lioliou et al. (2014); Oshri et al. (2015); Rai et al. (2009); Silva et al. (2020); Su et al. (2014); Su (2015); Swar et al. (2012); Teo and Bhattacherjee (2014); Urbach and Wuerz (2012); Wang and Wang (2019); Wei et al. (2018); Winkler et al. (2008)

(Continues)

TABLE 2 (Continued)

Relational dynamics within stages	Triggers (opposite forces)	Responses (tension management strategies)	Outcomes (after tension management)	Studies
Transformational dynamics	*Separation-oriented* Cultural diversity, status and power asymmetry, apathy, loosely coupled organizations *Integration-oriented* Incorporation, integration of activities and resources	*Liminality* Betwixt and between organizations *Integrative collaboration* Co-sourcing, resource co-specialization, joint work, knowledge sharing	*Transformational objectives* Value co-creation, maximization of innovation, long-term stock returns, organizational change *Relationship development* Partnership growth, joint venture formation	Abbott et al. (2013); Al-Azad et al. (2022); Alexandrova (2015); Berger and Lewis (2011); Beulen et al. (2022); Blumenberg et al. (2009); Duhamel et al. (2018); Ghosh and Scott (2009); Kern and Willcocks (2000); Kim et al. (2019); Kranz (2021); Mathrani and Mathrani (2016); Mehta and Mehta (2009, 2017; Murthy et al. (2016); Nicholson et al. (2017); Rottman (2008); Sharma et al. (2016); Soderberg and Romani (2017); Soderberg et al. (2013); Wang et al. (2018); Willcocks and Kern (1998); Xu and Yao (2013)
Terminational dynamics	*Reluctance-oriented* Unwillingness *Benevolence-oriented* Project knowledge transfer	*Incentivizing* Other ongoing projects, speed of learning	*Relationship termination* End of relationship with an outgoing vendor	Law (2018); Moe et al. (2014); Natovich (2003); Smite and Moe (2020); Whitten and Leidner (2006)

TABLE 3 Main findings of relational dynamics across ITO stages

Relational dynamics across stages	Triggers (opposite forces)	Responses (tension management strategies)	Outcomes (after tension management)	Studies
Overarching (across all stages)	*Stasis-oriented* Development barriers, relationship satisfaction *Adaptation-oriented* New objectives, training	*Continuous improvement* Learning from mistakes, lean implementation *Trust establishment* Building, maintaining, and strengthening trust	*Relationship spiral* Positive or negative relationship signifying success/failure and growth/regress in stages	Ali and Khan (2016); Ali et al. (2018, 2019); Babar et al. (2007); Blijleven et al. (2019); Chattopadhyay and Das Aundhe (2019); Cheng et al. (2021); Das Aundhe and Mathew (2009); Delen et al. (2016, 2019); Effah and Adam (2022); Gregory et al. (2013); Hansen and Rasmussen (2013); Kelly and Noonan (2008); Kern and Blois (2002); Kishore et al. (2003); Klepper (1995); Lee and Choi (2011); Mao et al. (2008); Moon et al. (2010); Oza et al. (2006); Solli-Saether and Gottschalk (2008); Zviran et al. (2001)
Interstage (transaction ↔ strategic)	*Short-term-oriented* Efficiency, costs, quality, timeliness *Long-term-oriented* Innovation for the client, increasing market share, new markets	*Contract customization* Sharing IP rights, collaborative KPI contracts *Equivocation* Wait-and-see transitional stance	*Relationship evolution* Stay in the same relationship stage—transactional or strategic, or move from one to the other	Akkermans et al. (2019, 2020); Chen et al. (2017); Heiskanen et al. (2008); Kern and Willcocks (2002); Palvia et al. (2010); Poppo and Zenger (2002); Qi and Chau (2012, 2015); Rustagi et al. (2008)
Interstage (strategic ↔ transformation)	*Intra-firm alignment-oriented* Organizational adjustments *Interfirm alignment-oriented* Interfirm investments, relational norms, co-expectation	*Organizational learning* Procedural learning, relational learning	*Relationship evolution* Stay in the same relationship stage—strategic or transformation, or move from one to the other	Balaji and Brown (2014); Cha and Kim (2018); Mani and Barua (2015); Martins et al. (2018)
Interstage (transaction ↔ termination)	*Continuation-oriented* Relationship-specific investments, special benefits, renegotiation, uncertain alternative vendor performance *Switching-oriented* Inadequate vendor performance, sourcing internally, sourcing from a new vendor	*Switching cost analysis* Current IT operations, personnel-replacement process, in-house learning	*Negative relationship spiral* Unwilling continuation or termination	Peukert (2019); Whitten and Wakefield (2006); Whitten et al. (2010)

outcomes. For informal control, studies in our selection identify clan control relying on socialization strategies that facilitate and stimulate interaction, such as regular joint project meetings, social meetings, and events, to enhance project performance.

Multisourcing refers to outsourcing the same operation to more than one vendor. Some studies (Bahli and Rivard, 2013; Lioliou et al., 2019) argue that this approach mitigates vendor opportunism in ITO relationships by inducing competing vendors to provide high quality and performance because of the threat of losing business to one another. Although multisourcing may generate significant monitoring costs, this can be mitigated through peer control, for which the client sets overlapping vendors to exercise control over each other.

Outcomes

Managing *opportunism–obligation* helps achieve satisfactory transactional ITO objectives (Huber et al., 2013; Kim et al., 2013; Könning et al., 2020), including improved efficiency, cost savings, and quality performance (Gopal and Koka, 2012; Khan et al., 2019; Shim et al., 2019). These achievements may also result in contract extension (Koh et al., 2004; Mahnke et al., 2008; Susarla et al., 2010), enabling the relationship to progress to another stage as the client develops capabilities for managing a new relationship form (Shi et al., 2005).

Strategic dynamics

The results from our analysis focusing on the strategic stage indicate that underpinned studies primarily draw on economic and resource viewpoints to explain strategic-stage outcomes (e.g., cost-effective innovation). Specifically, results show that exploitation and exploration oppose each other; this tension is managed through cross-level ambidexterity and capability integration.

Trigger: Exploitation vs exploration

According to some underpinned studies (Bui et al., 2019; Cai et al., 2020; Lioliou et al., 2014), the dominant tension in the strategic stage is due to the duality of exploitation and exploration, which oppose each other. Strategic ITO clients exploit their vendors' experience to limit production and organizing costs while exploring the vendor's competencies to access innovation that contributes to their competitive position. However, exploring innovation through accessing critical vendor resources introduces

new organizing needs, including new monitoring abilities and reduced contractibility, resulting in greater contract incompleteness, ambiguity, and residual risks (also see Anderson et al., 2017). Hence, organizing costs increase, contradicting exploitation to minimize costs. Thus, focusing on either exploitation or exploration impedes the other.

Several studies in the selection of articles focus on either exploitation or exploration. Exploitation-oriented studies address cost concerns associated with large and complex client projects entailing customization and out-of-scope requirements, which can be detrimental to project costs, operational performance, and long-term profitability for both client and vendor (Bapna et al., 2016; Langer and Mani, 2018; Langer et al., 2014; Rai et al., 2009; Silva et al., 2020). In contrast, exploration-oriented studies advance the vendor's value proposition as the primary trigger of relational dynamics (Jain and Khurana, 2016; Urbach and Wuerz, 2012). This includes improving existing services and developing new processes and products to help clients enhance their competitive position.

Tension management

How a vendor's innovative competencies cost-effectively create value and transfer this to the client presents a challenge for both client and vendor firms (Kannabiran and Sankaran, 2011; Levina and Ross, 2003; Wei et al., 2018). Some studies identify *cross-level ambidexterity* and *capability integration* as suitable strategies.

Cross-level ambidexterity in strategic ITO pertains to enabling ambidexterity across multiple levels—including interorganizational, organizational, and individual—to manage *exploitation–exploration*. Interorganizational activities in relational exchanges and intercultural interactions can promote knowledge for enhancing both cost performance (exploitation) and innovation (exploration) (Oshri et al., 2015; Su, 2015; Teo and Bhattacherjee, 2014). To access external knowledge, organizations need to assign boundary spanners (Du and Pan, 2013). At the organizational level, structural arrangements, socialization, team building, and knowledge sharing enable individuals to think and act ambidextrously.

Capability integration involves developing, aligning, and reconfiguring vendor and client capabilities. As strategic ITO relationships face the dual challenge of efficiency (exploitation) and innovation (exploration), some reviewed studies (Karimi-Alaghehband and Rivard, 2020; Kim and Chung, 2003; Swar et al., 2012; Wang and Wang, 2019) argue for the integration of multiple client–vendor capabilities, to be used dynamically for achieving satisfactory relationship outcomes (Chakrabarty et al., 2007;

Gopalakrishnan and Zhang, 2019). Key client capabilities identified in studies include managing resources the client does not own, a global mindset of top management, communication, project management, and knowledge management. Key vendor capabilities include confidentiality, project-specific knowledge, and business-domain knowledge valuable to the client. Relationship management and business-domain knowledge are capabilities that can develop as the relationship progresses (Jain et al., 2011; Levina and Ross, 2003).

Outcomes

The primary identified outcomes from managing *exploitation–exploration* in strategic ITO are cost-effective innovation (Goo et al., 2008; Hsu et al., 2022; Urbach and Wuerz, 2012; Winkler et al., 2008), entrance to new markets and moving up the value chain (Oshri et al., 2015), and for vendors to (further) develop knowledge-integration, boundary-spanning, buffering and bridging capabilities (Du and Pan, 2013; Su et al., 2014). These encourage commitment, contract extension, and goal sharing (Goo et al., 2007, 2009; Han et al., 2008; Jain and Khurana, 2016), enabling strategic ITO relationships to evolve and become transformational.

Transformational dynamics

Studies classified under the transformation stage rely mostly on learning and social lenses to explain transformation-stage outcomes (e.g., co-innovation). Specifically, the results show that separation and integration oppose each other, a tension managed by liminality and integrative collaboration.

Trigger: Separation vs integration

Several studies that were classified as addressing the transformation stage point to a primary tension between separation and integration. These studies address the challenges that individuals of separate partner organizations face during resource integration (Natovich, 2003), the challenges of blurred firm boundaries (Kern and Willcocks, 2000), and the risks of sharing internal corporate information and intellectual property amongst partners (Alexandrova, 2015). Paradoxically, these studies consider integrating partner resources and processes instrumental for co-innovation and business transformation.

Other studies focus on one side of the tension. Separation-oriented studies consider partner firms as inde-

pendent organizations that only contribute resources and compete for a share of the benefits of collaboration. Thus, the ITO relationship is constantly challenged by factors including cultural diversity between interfirm resources (Mehta and Mehta, 2009) and status and power asymmetry (Soderberg and Romani, 2017); if not handled carefully, these factors may lead to apathy between partners (Berger and Lewis, 2011). Since transformational benefits are more significant when partner firms can mitigate these separation challenges, form ties, and integrate and share resources, studies (Abbott et al., 2013; Gregory et al., 2009; Murthy et al., 2016) also stress the need to integrate loosely coupled organizations and their multiple cultures and objectives. Consequently, integration-oriented studies have advanced integrating partner employees into development teams, transferring knowledge (Rottman, 2008) and organizing joint activities for long-range planning and training (Wang et al., 2018).

Tension management

Integrating organizations that exist as separate entities creates a difficult-to-manage tension. Studies in our selection identify managing *separation–integration* through *liminality* and *integrative collaboration*.

Liminality refers to when individuals and groups in separate organizations head towards incorporation and reach a social space called a liminal space that exists between (betwixt) both organizations (Nicholson et al., 2017). The liminal space is created when regular routines of the formal organizations are suspended, and individuals/groups do not see themselves as belonging to either organization; instead, they assume transitional identities and create new routines and norms free from existing technical and bureaucratic obligations. This enables them to transcend various limitations, learn, and reflectively conceive innovation trajectories for both organizations (Nicholson et al., 2017).

Integrative collaboration in ITO pertains to collaboration to integrate the social capital in person-to-person relationships. We identified co-sourcing, resource co-specialization, joint work, and knowledge sharing in the studies selected. In co-sourcing, partners collaborate as allies to enhance their competitive positions (Willcocks and Kern, 1998), invest in developing and managing the collaboration, share forecast skill requirements in advance, and assist each other in coping with skill shortages (Mehta and Mehta, 2009). Co-specialization describes a strategy whereby the allies mutually commit to and are locked into a bilateral specialization relationship. Through their joint efforts, they promote identification (i.e., collective responsibility for project goals; Soderberg et al., 2013)

and create specialized combinations of strategic resources (e.g., knowledge) that are valuable and difficult to imitate (Duhamel et al., 2018; Ghosh and Scott, 2009; Kim et al., 2019). The allies leverage their joint activities to transfer and share such resources for a mutually beneficial relationship (Al-Azad et al., 2022; Blumenberg et al., 2009; Sharma et al., 2016; Xu and Yao, 2013).

Outcomes

When allying ITO firms manage *separation–integration* successfully, their transformational relationship becomes sustainable for obtaining alliance objectives (Berger and Lewis, 2011; Soderberg and Romani, 2017; Wang et al., 2018). These objectives include value co-creation, co-innovation (Beulen et al., 2022; Kranz, 2021; Murthy et al., 2016), maximization of innovation (Mehta and Mehta, 2017), and organizational and firm growth (Berger and Lewis, 2011; Kim et al., 2019). Achievements enable partnership growth (Soderberg et al., 2013) and joint venture formation (Mathrani and Mathrani, 2016).

Terminational dynamics

Studies classified under the termination stage draw mainly on economic and learning viewpoints to examine relationship termination. Results indicate that reluctance and benevolence oppose each other; this tension is managed by incentivizing.

Trigger: Reluctance vs benevolence

As IT is generally knowledge-intensive, terminating ITO engagements does not allow for an immediate cut-off. Studies classified in the termination stage indicate that once a client decides to source alternatively by backsourcing or switching vendors (Whitten and Leidner, 2006), tension emerges between reluctance and benevolence in the engagement (Smite and Moe, 2020). Reluctance pertains to unwilling vendor participation, whereas benevolence entails vendor cooperation in transferring project knowledge to replacement staff. With no or lower expected benefits from the current operation until cut-off, the vendor may exhibit reluctance against benevolence and prefer to use its resources for other, more rewarding arrangements. This is characterized by lock-in (Law, 2018) and difficulty breaking the contractual agreement (Natovich, 2003).

Tension management

Mitigating vendor reluctance for benevolence until cut-off presents a significant challenge for client firms. *Incentivizing* is used as an important mitigation strategy (Smite and Moe, 2020). Identified incentives include continuation of the contractual relationship with the outgoing vendor in other projects and tying it to the training it gives to its replacement (in-house or new vendor). This also warrants the latter to be more competent, experienced, and faster at learning (Moe et al., 2014), which helps mitigate reluctance from the outgoing vendor.

Outcomes

Managing *reluctance–benevolence* in the termination stage supports obtaining the main objective of recalling outsourced work back in-house or switching to another vendor, which principally results in relationship termination with the outgoing vendor (Moe et al., 2014; Natovich, 2003).

Across-stage dynamics

Table 3 summarizes the relational dynamics across stages. In our analysis of the papers underlying the table, we identified a main tension that occurs across all stages (overarching tension), tensions that occur between stages (interstage tensions), how each tension is managed, and the outcome(s) thereof.

Overarching tension and its management

The identified overarching tension across all stages relates to *stasis–adaptation*. Some studies underpinned across stages (Ali et al., 2019; Hansen and Rasmussen, 2013) suggest that as markets and strategies change, client and vendor firms need to make clear and fast decisions to adapt to achieve ITO goals. However, other studies (Ali et al., 2018; Kern and Blois, 2002) describe that ITO relationships can resist adapting to changing circumstances (i.e., stasis). These relationships are subject to growth barriers, assessment times, satisfaction with current performance, unpredictable and complicated building processes, and involve humans with limited information-processing abilities. We also identified the *stasis–adaptation* tension in several studies underpinned within stages. For example, in the transaction stage, formal ITO contracts (with stipulations for efficiency gains) can be static, limiting

adaptations. However, relational governance practices can be adapted to address conflicting relationship demands for efficiency gains (Cao et al., 2013; Huber et al., 2013). In the transformation stage, contracts need adaptation to accommodate new transformational requirements. However, the cost and processing times can be higher, and time-to-market can be unacceptably slow (Blumenberg et al., 2009), impeding adaptation. Observing *stasis–adaptation* within different ITO stages corroborates the finding across stages—it is not tied to one stage, but is overarching.

Some studies underpinned across stages point to *continuous improvement* and *trust development* as mechanisms to manage *stasis–adaptation*. A *continuous improvement* strategy is based on learning from mistakes. Here, the ease of learning by the partners determines how adaptable they can be to changing circumstances (Ali and Khan, 2016). Another continuous improvement strategy is lean implementation, which aims to increase relationship effectiveness (Blijleven et al., 2019). Lean permits the identification of value-adding and non-value-adding activities, facilitating the improvement (adaptation) of the former and passivity (stasis) of the latter. Whereas lean can improve efficiency (for transactional relationships), it may also be used in strategic and alliance-type ITO relationships (Blijleven et al., 2019).

Trust development occurs gradually across ITO stages and includes building, maintaining, and strengthening trust (Babar et al., 2007; Zviran et al., 2001). Initial trust motivates the beginning of an ITO relationship because each party believes the other will perform actions that lead to beneficial relationship outcomes (Kelly and Noonan, 2008; Lee and Choi, 2011). Subsequently, more trust is built: (a) through client–vendor interactions, including team formation, quality communication practices, and information sharing (Cheng et al., 2021; Effah and Adam, 2022; Kelly and Noonan, 2008; Mao et al., 2008); (b) through relationship adaptations, including joint crisis management and vendor adaptations to changing client requirements (Babar et al., 2007; Chattopadhyay and Das Aundhe, 2019; Zviran et al., 2001); and (c) through improved performance outcomes, including reduced conflicts and transaction costs (Babar et al., 2007). To maintain the tentative trust built (Kelly and Noonan, 2008), ITO firms engage in practices such as knowledge sharing (Lee and Choi, 2011), transparency, regular and open communication, demonstrability of results, commitment, and honesty in presenting facts about the outsourced work (Mao et al., 2008; Oza et al., 2006). Maintained trust is strengthened through collaborations for co-innovation (Kelly and Noonan, 2008; Zviran et al., 2001). Trust helps clients and vendors continuously adapt to changing relationship circumstances and grow their relationships across stages over time, decreasing the demand for control (Gregory et al., 2013). While ITO

success increases trust and encourages a relationship to progress to higher stages, a successful ITO relationship can also be static and remain in the same stage; for instance, if the client does not want or need the vendor to be deeply involved in its activities. Conversely, decreasing trust can push a relationship towards termination.

Interstage tensions and their management

The central tension in movement between the transaction and the strategic stages relates to *short–long-term orientation* (Kern and Willcocks, 2002; Rustagi et al., 2008). Short-term orientation concerns achieving the immediate objective of minimizing costs or increasing operational efficiency. However, environmental changes (such as new market demands) can induce a client to consider long-term relationship investments to enable innovation, enhance its market share, and create new market opportunities for both parties (Akkermans et al., 2019, 2020; Heiskanen et al., 2008; Palvia et al., 2010). Being only short-term oriented can trap the relationship in the transactional stage with little focus on long-term success, setting a premise for failure in the long term. Conversely, changing the orientation to long-term alone implies a swift change to a new way of relationship management, which can be detrimental as the contractual provisions and capabilities required for a long-term orientation cannot suddenly develop.

Some studies propose *contract customization* and *equivocation* to manage *short–long-term orientation*. Firms can customize (structurally adjust) short-term transactional ITO contracts to accommodate new strategic behaviours such as sharing intellectual property (Chen et al., 2017; Poppo and Zenger, 2002; Qi and Chau, 2012, 2015). If, instead, a relationship takes a vicious direction, contract customization may involve incorporating collaborative key performance indicators (KPIs) such that the vendor is evaluated and rewarded for ITO performance and the client for its enabling behaviour (Akkermans et al., 2019, 2020). This may rescue a strategic relationship from outright termination, enabling a virtuous one commencing on a transactional basis. Tension management by equivocation means the client adopts a wait-and-see transitional stance when both ends of the tension are at play, renegotiates the contract with the vendor, and accepts or rejects new terms (Heiskanen et al., 2008). Acceptance takes the relationship to a new stage, while rejection keeps it in its current stage.

The central tension in movement between the strategic and the transformational stages relates to *intra–interfirm alignment*. Some studies (Balaji and Brown, 2014; Cha and Kim, 2018; Martins et al., 2018) indicate that when an ITO relationship moves across these stages, firms need to align internally (intra-firm) and externally

(interfirm), which requires time and resources. Firms face the need to redesign their operating procedures to optimize their internal organization, which may conflict with the interfirm partnering requirements (Cha and Kim, 2018). Internally aligning resources and processes builds employees' knowledge, skills, and abilities that help a firm to execute its competitive strategy to achieve its business objectives. However, effective external (interfirm) alignment is also required for this purpose. Interfirm alignment requires substantial resource investments (Martins et al., 2018) from client and vendor as a shift to transformation demands direct interactions between various business functions at different relationship interfaces. This requires firms to establish a linking pin to effectively manage the co-existence of intra-firm and interfirm alignment in the advanced stages of ITO.

We identified *organizational learning* as the primary strategy to manage *intra–interfirm alignment.* Through procedural and relational learning, ITO partners can become ambidextrous in intra–interfirm alignment (Mani and Barua, 2015). Procedural learning entails making intra-firm adjustments (including investments to identify contingencies, designing aligned contracts, and complementary relationship management processes and technologies) based on experiences managing prior interfirm relationships. Relational learning involves investments in communication and collaboration with the partner firm to understand the latter's structures, processes, and technologies to establish a common ground and shared understanding.

Finally, we identified *continuation–switching* as the prominent tension in movement between the transaction and termination stages; when a client contemplates terminating a transactional relationship (Peukert, 2019; Whitten et al., 2010). Continuation pertains to keeping the relationship with the current vendor, including relationship-specific investments, renegotiation, uncertain alternative vendor performance, and preferential treatment developed during past operations (e.g., continued patronage that can provide benefits and privileges to the client over time) (Whitten and Wakefield, 2006; Whitten et al., 2010). In contrast, switching pertains to sourcing alternatively (in-house or from another vendor) when vendor performance is inferior to an alternative's expected performance (Peukert, 2019; Whitten and Wakefield, 2006; Whitten et al., 2010).

Managing *continuation–switching* is critical for future relationship investments. In deciding whether to continue an ITO relationship, clients can make a *switching-cost analysis* that takes into account all possible sources of switching costs, including IT operations (sunk investments, lost performance, management system upgrades, uncertainty, retraining, etc.), personnel replacement (candidate search,

information transfer/setup), and in-house learning (cognitive/behavioural) (Peukert, 2019; Whitten and Wakefield, 2006; Whitten et al., 2010). Clients may continue in a relationship if switching costs are too high, or switch to a new vendor or insource if anticipated benefits outweigh switching costs (Whitten et al., 2010).

Outcomes

Managing the overarching and interstage tensions produces upward/downward *relationship spirals* in feedback loops and across ITO stages over time (Kishore et al., 2003; Klepper, 1995; Moon et al., 2010). Upward spirals involve learning cycles (Ali and Khan, 2016) with cumulative effects over time, generating relationship maturity across stages (Das Aundhe and Mathew, 2009; Solli-Saether and Gottschalk, 2008). In these learning cycles, firms proactively manage the outsourcing process to facilitate further outsourcing, which can change the nature of the outsourced activity and warrant new relationship-specific investments. Thus, learning may evolve from temporary single loops to transformative double loops that change the partners' managerial practices and motivate decisions for a new relationship form. This enables relationships to move upwards from a lower to a higher stage, such as from the transaction to the strategic stage (Akkermans et al., 2019).

Conversely, downward spirals involve vicious cycles (Akkermans et al., 2020) accompanied by role conflict and ambiguity (Solli-Saether, 2011), with success or failure as outcomes (Delen et al., 2016, 2019). For example, a relationship in the transactional stage can start experiencing poor performance due to behavioural stress and staff turnover (Solli-Saether, 2011), causing it to fail and enter the termination stage (Peukert, 2019). However, a relationship in a higher stage can avoid outright termination and may successfully transition to the transaction stage in which altered objectives are pursued. Such a transition can be a backward jump from a transformational to a transactional relationship, for instance, when norms regarding information exchange, solidarity, and flexibility are assessed as not being reciprocated by one party, inducing transitioning to an engagement in which parties avoid such concerns (Kern and Blois, 2002).

A TENSION PERSPECTIVE OF RELATIONAL DYNAMICS IN ITO

Based on the results of our review, we propose a tension perspective of relational dynamics in ITO arrangements. Within and between relationship development stages, relational dynamics occur as ITO partners experience
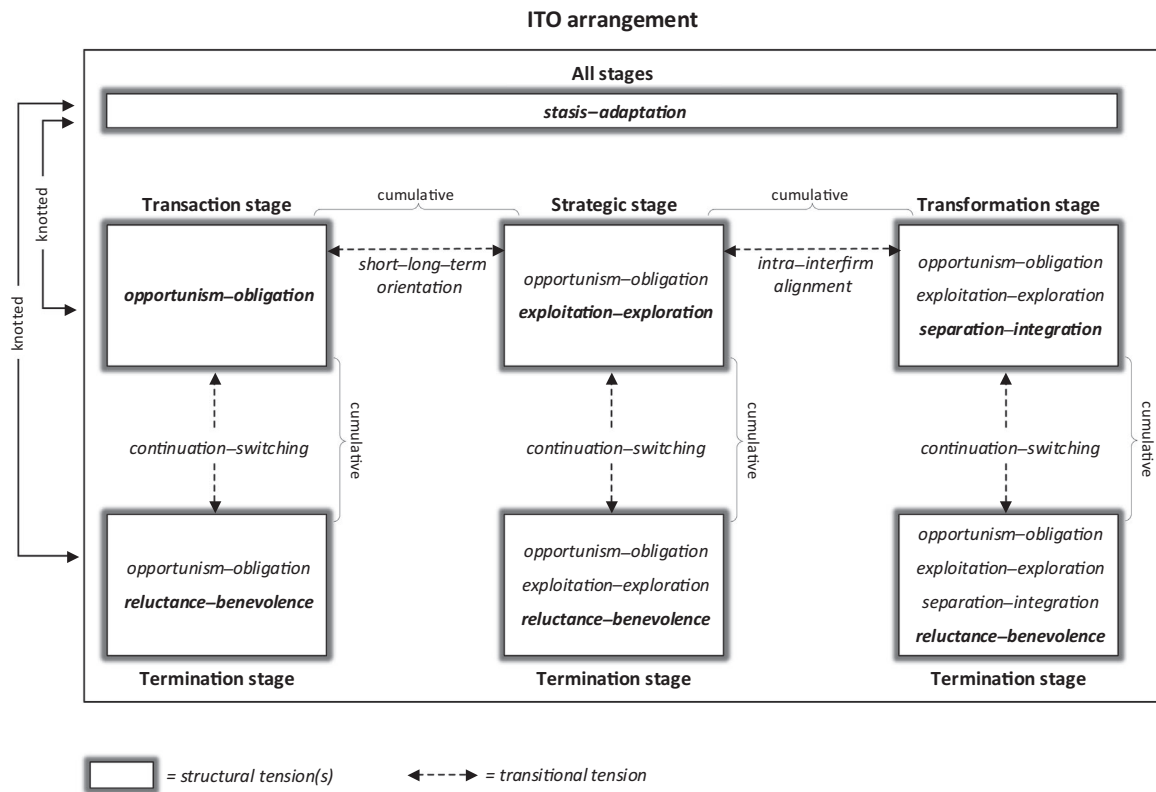
FIGURE 5 A tension-based framework of relational dynamics in ITO.

opposing initial/emerging conditions or tensions (Smith and Lewis, 2011), which trigger them to respond (i.e., deploy strategies to manage the tensions) to achieve collaboration goals and development (outcomes). Building on this premise, our perspective (as visualized in Figure 5) stipulates that ITO arrangements bring about *structural tensions*, which are persistent and associated with performance within stages, and *transitional tensions*, which are temporal and associated with development across stages. Managing these tensions invokes shifts between relationship stability and instability. To better understand this stability/instability interplay and the inherence with relational dynamics in ITO arrangements, we extend our review findings with insights from the literature on organizational tensions (e.g., Putnam et al., 2016; Sheep et al., 2017; Smith and Lewis, 2011) to distinguish between the structural and transitional tensions.

Structural tensions

We conceptualize a *structural tension* as a pair of persistent opposing forces in a relationship development stage. These tensions persist because, in any development stage, acts of organizing (e.g., distinct practices) and adapting (e.g., addressing demands) persist. Thus,

when structural tensions are salient, successfully managing them does not eliminate them but renders them latent (Smith and Lewis, 2011). The structural tensions in a stage form a knot (i.e., they co-occur and are inseparably entangled and interdependent), focusing on the goal of the stage (Sheep et al., 2017). For example, the transactional stage entails a knot of two tensions (*opportunism–obligation* and *stasis–adaptation*) to attain efficiency gains. The strategic stage brings about a knot of three tensions (*exploration–exploitation*, *opportunism–obligation*, and *stasis–adaptation*) to achieve cost-effective innovation. See Table 1 for the focus of each stage. Thus, structural tensions have implications for relational dynamics and intra-stage ITO performance (success or failure), and it is critical for ITO partners to understand how to approach them. Understanding how partners can deal with knotted structural tensions offers insights into how relational dynamics associate with intra-stage stability and instability.

As the initial/emerging conditions within a development stage indicate the knotted structural tensions, relational dynamics are likely to be stabilized when the partners can successfully manage the knot by establishing a mutually reinforcing balance among all the structural tensions in the development stage (Jarzabkowski et al., 2021). This relational stability is attained when in the knot:

(1) each structural tension is treated as a paradox, that is, both of its forces are considered simultaneously (Gaim and Wåhlin, 2016; Smith and Lewis, 2011); and (2) all structural tensions are considered simultaneously (Sheep et al., 2017). When all the structural tensions are in balance, an ITO arrangement can pursue its goals while satisfying client and vendor interests. For example, to attain goals in the transaction stage, ITO client and vendor need to manage the knot—*opportunism–obligation* and *stasis–adaptation*—through a structural technique: integrating (Andriopoulos and Lewis, 2010; Poole and Van de Ven, 1989) respective tension management strategies such as governance ambidexterity (see Table 2) and continuous improvement (see Table 3) suggested by our review results.

In contrast, relational dynamics within-stage are likely to be destabilized when ITO partners are unable or unwilling to find a mutually reinforcing balance (Jarzabkowski et al., 2021), that is, when in the knot: (1) one force of a structural tension is favoured at the expense of the other; or (2) a structural tension is favoured (in time) at the expense of co-existing structural tension(s) (Sheep et al., 2017). For example, firms in a transformational ITO relationship may take a one-sided approach to *separation–integration*, favouring separation. Some of the reviewed studies indicate that separation fosters cultural diversity between interfirm resources (Mehta and Mehta, 2009) and status and power asymmetry (Soderberg and Romani, 2017), which may lead to apathy between the partners (Berger and Lewis, 2011). As such, transformational benefits cannot be achieved because, according to some reviewed studies (e.g., Murthy et al., 2016), these benefits can only occur when the partners are willing to mitigate separation challenges, form ties, and integrate and share resources.

Thus, in a knot, considering only one (force of a) structural tension might escalate (amplify) another (Sheep et al., 2017). This warrants ITO partners to take an inclusive approach to manage all aspects of the structural tensions they face. Hence, while generating a mutually reinforcing balance among knotted structural tensions achieves relational stability, neglecting one force or one structural tension in the knot causes instability (Jarzabkowski et al., 2021).

Transitional tensions

We conceptualize a *transitional tension* as a pair of temporary opposing forces that occur as an ITO arrangement shifts from one development stage to another, encompassing the objectives of both stages. For example, in transitioning from the transaction to the strategic stage, the transitional tension, *short–long-term orientation*, is encountered, encompassing efficiency gains (transaction

stage) and cost-effective innovation for the client (strategic stage). A transitional tension brings about a cumulativeness of structural tensions as a relationship moves from one stage to another (see Figure 5). Cumulativeness means that the structural tensions accumulate when a relationship transitions from a lower to a higher stage, or decumulate when it transitions from a higher to a lower non-termination stage, and an initial structural tension reframes—changes in meaning (Putnam et al., 2016; Sheep et al., 2017).

During a transition, the transitional tension interweaves with the original structural tensions, and when managed properly, the relationship enters a new stage with a new set of structural tensions that focus on the goals of the new stage (Sheep et al., 2017), indicating a change (increase/decrease) in knottedness. For example, in progressing from the transaction to the strategic stage, the transitional tension *short–long-term orientation* is encountered. This tension interweaves with the two tensions from the transaction stage (*obligation–opportunism* and *stasis–adaptation*), and adequately resolving this interwovenness accumulates the structural tensions to three in the strategic stage (*obligation–opportunism*, *stasis–adaptation*, and *exploitation–exploration*). The transitional tension dissipates, whereas the newly encountered tension (*exploitation–exploration*) becomes the dominant tension in the new stage. Conversely, the knotted structural tensions would decumulate, decreasing from three to two if the relationship regressed from the strategic to the transactional stage (see Figure 5).

While transitioning, an original structural tension reframes (Putnam et al., 2016) and becomes salient in the new stage due to new/changed relationship objectives (Smith and Lewis, 2011). For example, *obligation–opportunism* reframes when a relationship transitions between the transaction and strategic stages because, in the transaction stage, opportunism may mean shirking (Mathew and Chen, 2013), and obligation may mean contract specificity (Srivastava and Teo, 2012). In the strategic stage, opportunism may mean strategic lock-in (Goo et al., 2009), and obligation may mean psychological contract fulfilment (Cai et al., 2020). How partners may deal with transitional tensions offers insights into how relational dynamics associate with interstage stability (successful transition) and instability (unsuccessful transition).

When ITO objectives change and a relationship transitions to another stage, stabilizing relational dynamics will likely occur when: (1) the transitional tension is treated as a dilemma (i.e., resolved in favour of one force; Gaim and Wåhlin, 2016; Smith and Lewis, 2011) that pulls the relationship to the new stage; and either (2a) the initial structural tensions are balanced, promoting relationship progress; or (2b) the dominant structural tension

is resolved in favour of the lower stage, promoting relationship regress. For example, successfully progressing from the transaction to the strategic stage requires resolving the transition tension *short–long-term orientation* in favour of long-term orientation while keeping the two initial structural tensions (*opportunism–obligation* and *stasis–adaptation*) balanced, accumulating to three tensions in the strategic stage, including the new tension, *exploitation–exploration*. Conversely, successfully regressing from the strategic to the transactional stage requires resolving the transitional tension in favour of short-term orientation and the dominant strategic-stage tension (*exploitation–exploration*) in favour of exploitation. By doing so (i.e., successfully regressing from a higher to a lower (non-termination) stage), the structural tensions decumulate. The review results indicate that transitioning between the transactional and strategic stages is a dilemma because resolving the transitional tension entails, for example, adopting a wait-and-see transitional stance to accept or reject renegotiated contract terms (Heiskanen et al., 2008).

In contrast, destabilizing interstage relational dynamics (i.e., unsuccessful transition) will likely occur when the transitional tension is not treated as a dilemma, that is, is not resolved in favour of the force that is deemed to pull the relationship to a new stage. For example, transitioning a relationship from the strategic stage to the transformational stage will fail if the transition tension, *intra–interfirm alignment*, is not resolved in favour of interfirm alignment. As a remedy, the review results suggest that a cost-saving long-term relationship (strategic stage) can be converted to a deep bilateral collaboration (transformation stage) (Cha and Kim, 2018) when the partners can make substantial resource investments for relational learning to establish a common ground and shared understanding (Mani and Barua, 2015) for effective interfirm alignment (Martins et al., 2018).

Implications

Our tension perspective of relational dynamics in ITO offers new insights into relationship development by treating a structural (persistent) tension as a paradox compared to a transitional (temporal) tension as a dilemma. This perspective suggests that relational dynamics form an iterative cycle between stability and instability within and across development stages, and these have three key implications invoked by (mis)managing these tensions.

First, relationship progress (forward interstage transition) and regress (backward interstage transition or termination) result from how ITO partners manage tensions. A relationship can begin in any of three stages—transactional, strategic, and transformational. If it starts in a lower stage and progresses to a higher one, the partners can learn to manage the relationship by progressively managing an accumulation of knotted structural tensions. This suggests that if one or more tensions were successfully managed in a previous stage, they do not pose a new encounter in a new/higher stage. Even though existing tensions reframe in another stage, for example, opportunism concerns, shifting from information distortion in the transaction stage (Lioliou et al., 2019) to intellectual property in the strategic stage (Chen et al., 2017), firms may have already developed capabilities to manage these tensions. Thus, while these tensions are still important in the new stage, firms may be less concerned about them compared to a newly encountered (dominant) tension. Therefore, identifying what and when tension management capabilities are needed and how to develop them has implications for ITO relationship development.

Second, a relationship increases in complexity when growing from a lower to a higher stage, and terminating it from a higher stage is also more complex. Complexity increases with the number of tensions (Bui et al., 2019; Gopalakrishnan and Zhang, 2019; Silva et al., 2020), and as depicted by our framework, the cumulative nature of tensions across stages implies that a transformational relationship is more complex than a strategic one, which is more complex than a transactional one. Similarly, the trend in complexity is the same if the relationships terminate directly from the respective stages. Thus, instead of aiming to terminate from the transformation stage directly, partners can pursue a regression path to first systematically reduce the knotted structural tensions through the strategic and transaction stages.

Third, shifts between stability and instability are inherent in ITO arrangements. Drawing on a tension perspective, coping with relational dynamics resembles a learning spiral (Raisch et al., 2018). ITO partners move towards stability, learn from their current dispositions, and subsequently move beyond stability to instability, enabling new rounds of learning. During these shifts between stability and instability, the partners reach higher levels of understanding about the complexity of their relationship, the tensions involved, and how to cope with them. Thus, building and deploying learning routines allows the partners to deal effectively with relational dynamics in ITO. Learning routines may originate in learning about managing ITO relationships (Dedrick et al., 2011; Shi et al., 2005), learning from an ITO partner (Alcacer and Oxley, 2014; Arrunada and Vazquez, 2006), and learning to improve the performance of an existing ITO arrangement (Whitten and Leidner, 2006). These forms of learning are a basis for self-evaluation and self-regulating behaviour, invoking feedback loops that, over time, are iterative and dynamic, with a cumulative impact on the learning

routines (Dedrick et al., 2011), to develop and deploy tension management capabilities and promote relationship development.

FUTURE RESEARCH

Our tension perspective of relational dynamics in ITO offers four main directions for future research: (1) broadening understanding of the tensional nature of relational dynamics; (2) deepening understanding of relationship progress and regress; (3) exploring the role of individual (or a team of) decision-makers; and (4) accounting for contextual factors. Table 4 summarizes these research directions, the related research gaps, and example research questions.

Theme 1: Broaden the tension perspective of relational dynamics

Although our integrative framework brings together the fragmented ITO literature through a tension perspective, future research may further unravel relational dynamics in ITO arrangements. Most ITO studies have adopted a narrow view of relational dynamics, focusing on one development stage (e.g., Law, 2018) or one side of the main tension within a stage, such as *opportunism* in the transaction stage (e.g., Lioliou et al., 2019), *exploration* in the strategic stage (e.g., Jain and Khurana, 2016), *integration* in the transformation stage (e.g., Rottman, 2008), and *reluctance* in the termination stage (e.g., Natovich, 2003). While these studies enhance our understanding of key aspects of relational dynamics, future research could broaden this understanding by, for example, drawing on tensional elements embedded within transaction-cost economics (e.g., opportunism), the resource-based view (e.g., resource building and deployment), and social exchange theory (e.g., inequity) to more comprehensively investigate how ITO partners can individually and collectively (de)construct structural and transitional tensions. Also, future research may use insights from the paradox literature to understand why and when changing partner goals (foci) influence the construction of tensions as knotted and as cumulative. Table 4 suggests example research questions regarding this theme.

Theme 2: Deepen understanding of ITO relationship progress and regress

Future research may deepen our understanding of how ITO arrangements progress and regress through (mis)managing tensions. Studies (e.g., Bui et al., 2019)

suggest that ITO partners may need to adopt a tensional mindset as a prerequisite to relationship development and success, but provide little insight into how ITO partners can identify tensions and learn to manage them. Thus, future research could draw, for example, on organizational learning theory to understand how ITO firms can acquire the knowledge to identify and manage structural and transitional tensions and use a dynamic capabilities lens to investigate how they can develop a tension management capability. Also, as an ITO relationship evolves, the information asymmetry between client and vendor may evolve, prompting them to assume different responsibilities towards tension management. For example, the client likely manages the *obligation–opportunism* tension within the transaction stage because of its higher information advantage. As the relationship progresses to higher stages, the vendor gradually gains an information advantage, and the client becomes more dependent, prompting the vendor to be more involved in tension management alongside the client. Thus, future research could, for example, draw on co-evolutionary and interorganizational learning lenses to investigate the role of partner information asymmetry in managing tensions as ITO relationships evolve. Table 4 suggests some future research questions regarding this theme.

Theme 3: Explore the roles of individuals and teams in (de)constructing tensions

The review findings indicate that ITO research tends to dissociate relational dynamics from the individuals involved in those arrangements. This is surprising given that prior research on organizational tensions (Fairhurst et al., 2016; Putnam et al., 2016; Smith and Lewis, 2011) recognizes that they do not simply emerge but that decision-makers frame conditions as tensional. Moreover, some individuals or teams may perceive a tensional situation as a paradox (e.g., *obligation–opportunism*), while others may adopt a dilemma disposition (e.g., *obligation* or *opportunism*) (Gaim and Wåhlin, 2016; Smith and Lewis, 2011). Accounting for the individual and team levels introduces the notion of nested tensions (Smith et al., 2017)—tensions that exist across different levels—and opens up avenues for multi-level research. Challenging the assumption that understandings of tensions are universal (Keller et al., 2017) and advancing insights into relationship management and development, future research may explore how ITO client and vendor decision-makers frame tensional situations differently. Or, conversely, how relationship progress and performance influence individual dispositions. For example, by combining insights from cross-cultural psychology with social exchange theory in addressing possible

TABLE 4 Future research directions

Future research direction	Research gap	Example research questions
1. Broaden the understanding of *what* relational dynamics entails from a tension perspective	Understanding of the structural, transitional, knottedness, and cumulativeness of tensions in ITO relationships	• How do clients and vendors—individually and collectively—(de)construct structural and transitional tensions? • Why and when do ITO partners adopt a knotted structural and cumulative transitional tensional orientation? • How do converging or diverging client and vendor orientations impact relational dynamics in ITO? • What relationship development patterns exist within ITO arrangements, and how do knottedness and cumulativeness of tensions invoke them?
2. Deepen the understanding of *how* relationships progress and regress through (mis)managing tensions	The interplay between intra-stage and interstage ITO relationship development	• How do clients and vendors prioritize tension management to support development-stage objectives? • How do ITO partners learn to manage structural and transitional tensions? • How can ITO partners build and deploy a tension management capability? • What is the role of partner information asymmetry in managing tensions as an ITO relationship evolves?
3. Explore *when* and *where* decision-makers' roles become salient in tension manifestation	The influence of ITO representatives (individuals or teams) on relational dynamics (i.e., multi-level)	• How do decision-makers' attributes (e.g., values, traits, and beliefs) influence the construction of tensions? • How do these tensions and those nested across multiple levels influence relational dynamics? • Why and when do (ITO teams of) decision-makers influence relational dynamics within and across development stages? • How do relational dynamics influence (ITO teams of) decision-makers and their dispositions?
4. Account for *contextual factors* (in addressing 1, 2, and 3)	Integrating inconsistent findings by advancing contextual explanations of relational dynamics in ITO and IORs in general	• How and when do internal and external circumstances (e.g., strategic change, crisis, regulatory change) invoke tension orientations? • How do ITO attributes, including client–vendor asymmetry, internationalization, and governance, influence relational dynamics? • How and under what conditions can partners skip a stage? • How do relational dynamics differ between ITO and other IOR arrangements?

research questions (suggested in Table 4), future research may develop multi-level models stipulating how individuals with different cultural values approach tensions differently, invoking different relational patterns of governance. In sum, a multi-level perspective can advance our understanding of what and when tensions become salient and how tension salience influences ITO relational dynamics.

Theme 4: Account for contextual factors

Future research should also account for the contextual factors that may impact the three above-mentioned themes. We stress the importance of systematically investigating how ITO (inter)firm attributes and the environments the relationships operate in either enable or constrain relational dynamics. (Inter)firm attributes, including objectives, partner characteristics, and governance form, make up the ITO relational context, which conditions the appearance of tensions (Keller et al., 2017), how to manage them, and thus relationship development. In addition, environmental attributes, including digital transformation, market conditions, environmental (in)stability, and internationalization, comprise the environmental context that impacts relational dynamics. For example, if an ITO engagement is international (e.g., in IT offshoring), then cultural differences between partner firms are a source of alternative paradigms for constructing (Theme 1) and managing (Theme 2) tensions (Smith et al., 2017). In addition, cultural differences at the level of ITO managers and decision-makers (Theme 3) can generate different perceptions of and dispositions towards tensions, influencing how the engagement develops. Thus, future research may seek to establish the contextual boundaries and limitations of the ITO and broader IOR literatures. Table 4 suggests possible questions for future empirical research to account for relational and environmental contextual factors.

Methodological considerations

The literature review suggests that methodological pluralism has enriched insights into relational dynamics in ITO arrangements. However, this also prevents direct comparison of findings across studies. Of the 127 empirical studies considered, 59 were qualitative, 62 were quantitative, and 6 were mixed-method studies. Empirical qualitative research relied on various methods, including single-case, multiple-case, grounded theory, ethnographic, and narrative studies, whereas quantitative research relied mainly on survey and descriptive methods. As there is a need for both qualitative and quantitative approaches to studying

relational dynamics, future research may use some of these studies as a guide.

In-depth longitudinal qualitative research can help understand the complexity of dealing with tensions, such as identifying and managing structural and transitional tensions. Such work can help explain the relational dynamics and progress (or regress) of ITO arrangements more deeply. Cross-case comparisons can account for contextual variations (Yin, 2018) across different ITO arrangements. Quantitative studies may use surveys and experimental designs to collect multi-level data and use multi-level modelling to overcome some of the limitations of conventional methods when examining variables located at different levels (Hofmann, 1997).

CONTRIBUTIONS AND CONCLUSION

Our review makes three theoretical contributions. First, it offers a new conceptualization and integrative framework of relational dynamics by advancing a tension perspective. Whereas the IOR literature has conceptualized relational dynamics as changes in relationship characteristics (e.g., trust and objectives) and patterns of change (e.g., spirals and feedback cycles) (Faems et al., 2008; Lumineau and Oliveira, 2018; Vlaar et al., 2007), our review and resulting framework offer an integrative perspective centred around critical tensions, their management, and outcomes thereof. Using the context of ITO, our integrative framework highlights that firms can deliver on their collaborative objectives and grow or regress their relationship depending on how they deal with structural and transitional tensions.

Second, while previous IOR studies have downplayed the role of stability and fostered that instability is inherent in relational dynamics (de Rond and Bouchikhi, 2004; Majchrzak et al., 2015), we show that in ITO relationships, an interplay between stability and instability is inherent in relational dynamics within and across development stages. Within-stage, stability is achieved by considering both forces of a structural tension (i.e., treating them as a paradox) and generating a mutually reinforcing balance among all the structural tensions; otherwise, instability results. Across stages, stability follows from resolving a transitional tension in favour of one force (i.e., treating a transitional tension as a dilemma); otherwise, instability results. Since ITO relationships can exist in many forms that are analogous to various IORs, the proposed framework of relational dynamics in ITO can more broadly advance insights into specific forms of IORs. The mechanisms associated with relationship performance and development in the transaction stage of ITO inform us about how to manage transaction-based IORs such as franchises, licence agreements, and supplier–buyer exchanges.

Likewise, relational dynamics in the strategic stage of ITO inform us about how to manage strategic-based IORs like R&D arrangements, and relational dynamics in the transformation stage of ITO inform us about how to manage IORs like consortia and joint venture engagements. Similarly, the transitional tensions we identified in our review can help explain the progress or regress in other IORs. For example, firms in a buyer–supplier engagement may face the *continuation–switching* transition tension when contemplating whether to terminate their relationship involuntarily. Thus, through a tension perspective, the proposed framework of relational dynamics in ITO and the associated directions for future research can guide future IOR research more broadly.

Third, our integrative framework complements and extends the IOR literature. Prior IOR research has advanced tension perspectives in IORs (Das and Teng, 2000; Jarzabkowski et al., 2021; Niesten and Stefan, 2019). Our integrative framework corroborates prior insights that IORs can be complex and dynamic arrangements replete with tensions. However, our framework extends beyond these insights by comprehensively conceptualizing tensions as structural and transitional with knotted and cumulative features. For example, while prior IOR research has suggested factors that render latent tensions salient (Niesten and Stefan, 2019), our framework stipulates that relationship progress towards more complex forms is paved with new and additional tensions. In doing so, we recognize the complexity of tensions, implying different relational dynamics at different levels of engagement as the relationship progresses or regresses.

Our review also makes two managerial contributions. First, it highlights the challenge for ITO managers to manage co-occurrent contradictions (i.e., tensions) that are prevalent in ITO relationships. Our findings suggest various strategies to manage these tensions, depending on the relationship form or stage. For example, client managers responsible for transactional arrangements can manage the relationship through, for example, a hybrid of formal and informal control. In a strategic relationship aimed at cost-effective innovation for the client, managers face a need to integrate client and vendor capabilities, engaging with vendor partner managers. Second, our review suggests that as ITO relationships, and more generally IORs, progress, the increasing complexity demands managers to manage the relationship differently. Experiencing tensions could be an impetus for constructive change and innovation, and it takes a manager with the right capabilities to reap these benefits. This implies that to handle a more complex relationship, managers are confronted with acquiring new skills (e.g., alliance management instead of procurement management). Otherwise, they may face the risk of obsolescence and replacement by individuals who do possess the desired skill set.

ORCID

Elvis Ngah https://orcid.org/0000-0001-6739-4962
Brian Tjemkes https://orcid.org/0000-0001-9071-5947
Henri Dekker https://orcid.org/0000-0003-3388-3084

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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