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Boundary spanners in inter-organizational relationships: A literature review and research agenda

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ABSTRACT

The literature on interorganizational relationships has explored them at the organizational level and ignored interpersonal relationships. This paper consists of a literature review analyzing, consolidating, and synthesizing studies on boundary spanners in business-to-business (B2B) interorganizational relationships, pointing out directions for future research. The review was carried out in ten steps, separated into three phases encompassing planning, collecting, and synthesizing data, and disclosing the results. The study assesses 3,156 published articles, and 45 of them addressed the theme of boundary spanners in B2B interorganizational relationships. These articles were analyzed, identifying their characteristics and the evolution of research through time. The definitions of interpersonal and interorganizational relationships were compared, observing how the literature has addressed the interdependency between these relationships. Also, the concepts and roles assigned to boundary spanners were analyzed, leading to an integrated framework of the existing literature on the theme. Finally, suggestions for future research are presented, followed by this review's implications and limitations.

KEYWORDS

Boundary Spanners, Interpersonal Relationships, Interorganizational Relationships, Cooperation

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Received: 04/19/2021.
Revised: 03/02/2022.
Accepted: 04/28/2022.
Published: 04/10/2023.
DOI: <https://doi.org/10.15728/bbr.2021.0994.en>



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1. INTRODUCTION

Organizations purchase between 50% and 70% of the total value of their products from other organizations, a condition that has increased attention on the importance of close relationships with suppliers (Knoppen & Sáenz, 2017). Organizations acquire these goods or services from market-based relationships or from hybrid relationships (interorganizational relationships based on trust and reputation) (Williamson, 1979). Working together based on inter-organizational relationships is beneficial to the parties. There is greater information sharing, increased cooperation, and improved performance (Gao et al., 2005; Mukherji & Francis, 2008; Grawe et al., 2015) in different dimensions (Yang et al., 2016). These benefits have pushed organizations to seek closer relationships and develop cooperation arrangements to leverage their individual resources and gain joint advantages (Grawe et al., 2015).

Interorganizational relationships depend on recurrent personal interaction between individuals from partner organizations meaning this relationship is influenced by their behavior (Andersen & Kumar, 2006). Interorganizational relationships are built and sustained by individuals, the boundary spanners (Aldrich & Herker, 1977), who establish interpersonal relationships among themselves.

Interpersonal relationships refer to the individual-level friendships developed between boundary spanners. Their absence in inter-organizational relationships would reduce trust, limit information sharing, and make conflict resolution difficult (Butt, 2019). Thus, when interorganizational relationships are immersed in interpersonal relationships, positive results can occur at the organization level, providing infrastructure for cooperation, helping to resolve small conflicts, and ensuring the continuity of dyadic relationships (Butt, 2019).

However, organizations engaged in relationships expose themselves to the risk that partners will not cooperate in good faith (relational risk) and the risk of underperformance despite the cooperation of partner organizations (Dekker et al., 2016). Boundary spanners may be tempted to behave in ways that advance their own interest rather than that of the organization and their partner in the relationship (Perrone et al., 2003). Thus, to better understand interorganizational relationships, it is necessary to examine boundary spanners regarding their social connections since they are important in building and maintaining solid relationships between companies (Larentis et al., 2018).

The literature shows that boundary spanners need strong relational capabilities (Dekker et al., 2019). Thus, not all individuals can be considered ideal boundary spanners, depending on their relational capabilities (Vesalainen et al., 2019). Boundary spanners can occupy different positions in the organizational hierarchy at the operational and corporate levels. However, regardless of the hierarchical organizational level, boundary spanners are critical for managing cooperation between organizations (Janowicz-Panjaitan & Noorderhaven, 2009).

This research shows an increase in studies on boundary spanners in interorganizational relationships from 2015 onward, which suggests that this is an emerging theme. Also, it is possible to identify a lack of studies aiming to understand how interpersonal relationships influence interorganizational relationships and their impacts on different aspects of organizational performance. Studies that consider the different organizational hierarchical levels are also needed, so it is possible to analyze the roles of boundary spanners inherent to the levels at which they operate.

This area has gaps that deserve attention from academia. Therefore, the systematic literature review presented in this article addresses the following research questions: (i) how advanced is the literature on boundary spanners in interorganizational relationships, and (ii) which themes should emerge for future research? The review also intends to consolidate existing knowledge about boundary spanners in interorganizational relationships and propose a research agenda.

The study explored the literature on boundary spanners in interorganizational relationships in the business-to-business (B2B) context. The reviewing process led to 45 articles, systematizing their main findings, analyzing the themes explored, and discussing research opportunities in the area. The characteristics of these studies were identified, assessing how interorganizational relationships and their interdependence with interpersonal relationships were presented, and observing the concepts and roles boundary spanners play in interorganizational relationships.

Studies have explored buyer-supplier relationships at the organizational level but ignored the interpersonal relationships in which interorganizational relationships are embedded (Wu et al., 2010). In these studies, the focus has been almost exclusively on the organizational or interorganizational level of analysis, with little emphasis on the roles of individuals (Chakkol et al., 2018). Therefore, this review is timely since it considers interorganizational relationships at the individual level, involving interpersonal relationships that go beyond the organization's limits (Chakkol et al., 2018). The literature highlights that boundary spanners are increasingly considered for efficient cooperation (Vesalainen et al., 2019). However, despite the importance of these individuals, few studies have assessed their impact on interorganizational relationships (Manosso & Antoni, 2018).

2. METHODOLOGY

A systematic literature review allows the synthesizing of results and evidence from existing studies and producing new knowledge. In this sense, this review produces knowledge about boundary spanners in B2B interorganizational relationships, pointing out research opportunities. It was developed in ten steps, separated into three phases (Tranfield et al., 2003) (Table 1).

Table 1

Phases of a systematic literature review

Phase I – Planning the review	
Step 0	Identifying the need for a review
Step 1	Preparing a review proposal
Step 2	Developing a review protocol
Phase II – Conducting the review	
Step 3	Identifying studies
Step 4	Selecting the studies
Step 5	Evaluation of the study's quality
Step 6	Data extraction and monitoring progress
Step 7	Data synthesis
Phase III – Report and disclosure	
Step 8	Report and recommendation
Step 9	Putting the evidence into practice

Source: Tranfield et al. (2003).

The review protocol encompassed selecting articles in the databases Ebsco, Engineering Village, ProQuest, ScienceDirect, Scopus, Web of Science, and Wiley Online Library. The search was carried out on the articles' titles, abstracts, and keywords, in October of 2019, using the following keywords: "boundary spanner" OR "boundary spanners" OR "boundary spanning." The search

resulted in 3156 articles. Duplicate publications and articles with titles and abstracts outside the scope of this review were excluded, leaving 82 articles for a full reading. After this last step, 45 articles were selected for further analysis.

3. CRITICAL ANALYSIS AND REVIEW OF CURRENT LITERATURE

3.1. OVERVIEW

The 45 selected articles include 116 authors, seven of which are authors of at least two of the analyzed articles (Dekker, Gu, Hu, Luo, Noorderhaven, Zhang, and Zheng). Dekker is a professor at the University of Amsterdam, and Noorderhaven works at the University of Tilburg, both in the Netherlands. Zhang is a professor at the University of Vermont, and Luo is a professor at the University of Miami, both in the United States. Gu and Hu are professors at the University of Science and Technology of China, and Zheng is a professor at the University of Hong Kong.

The 45 articles analyzed were published in 35 different journals. The most prominent journal was *Industrial Marketing Management*, which published seven articles between 2006 and 2019, including studies by Dekker, Zhang, and Zheng. In 2019, three of the seven articles were published in this journal. The other journal that stood out was the *Journal of Operations Management*, which published four studies between 2007 and 2011. The *Journal of Business Research* published two studies in 2010 and 2017. Table 2 presents an overview of these publications.

Table 2

Publications overview

Journal	Number of articles	%
<i>Industrial Marketing Management</i>	7	15.6
<i>Journal of Operations Management</i>	4	8.9
<i>Journal of Business Research</i>	2	4.4
Others	32	71.1
Total	45	
Publication year	Number of articles	%
1977 – 2000	4	8.9
2001 – 2005	4	8.9
2006 – 2010	10	22.2
2011 – 2015	5	11.1
2016 – 2019	22	48.9
Total	45	100.0
Type of article	Number of articles	%
Theoretical	11	24.4
Empirical	34	75.6
Total	45	100.0
Approach of empirical articles	Number of articles	%
Qualitative	8	23.5
Quantitative	25	73.6
Mixed (Qualitative–Quantitative)	1	2.9
Total	34	100.0

Table 2
Cont.

Theory	Number of articles	%
Transaction cost theory	5	11.1
Social exchange theory	5	11.1
Role theory	4	8.9
Boundary spanning theory	4	8.9
Social network theory	3	6.7
Social capital theory	3	6.7
Contingency theory	2	4.4
Resource dependence theory	2	4.4
Social immersion theory	2	4.4
Institutional theory	2	4.4
Other theories	15	24.4

*Some of the articles presented more than one theory

**11 articles did not present a theory

Source: Elaborated by the authors

Most of the reviewed studies were empirical (75.6%), while the theoretical ones were less recurrent (24.4%). The theoretical studies developed and presented models (Schilke & Cook, 2013; Vanneste, 2016; Manosso & Antoni, 2018) and structures (Andersen & Kumar, 2006) about aspects of interorganizational relationships, literature reviews (Hoe, 2006; Claglio et al., 2008; Janowicz-Panjaitan & Noorderhaven, 2009; Luvison & Cummings, 2017), and suggestions for future studies (Olk, 1998; Ireland & Webb, 2007; Ellegaard, 2012) based on previous empirical studies.

The empirical studies comprised qualitative (9), quantitative (24), and mixed (1) research approaches. Qualitative empirical studies are recent, published between 2016 and 2019, while empirical studies with a quantitative and mixed approach were published between 1977 and 2019. None of the articles used experiments, and data from all empirical articles were collected in organizations.

The review identified the theories the studies used to obtain their results or to develop hypotheses or propositions. One of the most approached theories was the transaction cost theory (Olk, 1998; Kamann et al., 2006; Ireland & Webb, 2007; Dekker et al., 2016; Marcos & Prior, 2017), which discusses decisions to appeal to the market to acquire inputs or services and the costs arising from these transactions. The social exchange theory (Beugelsdijk et al., 2009; Ellegaard, 2012; Vanneste, 2016; Manosso & Antoni, 2018; Dekker et al., 2019) was also often used. It proposes that relationships are formed, maintained, or broken down based on cost–benefit analysis and depend on rewarding reactions from others. Other studies adopted the role theory (Perrone et al., 2013; Janowicz-Panjaitan & Noorderhaven, 2009; Luvison & Cummings, 2017), which focuses on how individuals link expectations and behaviors in roles. The social network theory (Li et al., 2010; Vanneste, 2016; Ekanayake et al., 2017) and social capital theory (Ireland & Webb, 2007; Williams, 2016; Butt, 2019) were also recurrent. The social network theory corresponds to structures that represent people or organizations (actors) and the relationships between them. The social capital theory deals with trust and reciprocity in exchange relationships.

3.2. THE DEVELOPMENT OF BOUNDARY SPANNER RESEARCH THROUGH TIME

The analysis of the research development through time revealed an increase in the number of publications over the years. The 45 articles selected were published between 1977 and 2019. However, 51% of them were published between 2015 and 2019, i.e., the number of articles published in these five years was the same as in the previous 37 years. Thus, it is possible to say that the topic has caught more attention recently, indicating that boundary spanners in interorganizational relationships are becoming more important.

The first three studies among the selected articles are those by Leifer and Huber (1977), Dubinsky et al. (1985), and Olk (1998). They recognize boundary spanners as the interface between their organizations and partner organizations. These studies recognized the role of boundary spanners in relationship structures between organizations and criticized studies that emphasized organizational factors and disregarded the individual level. However, the discussions they put forward are still incipient. The different roles these individuals can play, the higher levels on which they can act, and the effects of their performance on the organization's operation or relationship with other organizations are still not addressed.

The other studies in this review were published from 2000 onward. In studies published between 2000 and 2010, we identified new analysis perspectives concerning boundary spanners, such as developing and maintaining relationships between these individuals (Walter & Gemünden, 2000), the effects of the relationship between boundary spanners on the organization's performance, and the organization's satisfaction with the interorganizational relationship (Johlke et al., 2002; Haytko, 2004). These perspectives are important because they start to consider the effects of boundary spanners' relationships on the organizations, such as improving the performance and the organization's satisfaction with the interorganizational relationship.

These perspectives inspired studies concerned with the behavior of these individuals and their roles in interorganizational relationships (Perrone et al., 2003; Andersen & Kumar, 2006) and how they could increase the organization's profitability (Luo, 2005). After these studies, boundary spanners were considered important actors in interorganizational relationships, with roles and responsibilities inherent to their position as interfaces between their organizations and other institutions. These studies also bring an important analytical perspective, from which the organization's profitability can be related to the development of boundary spanners activities and behavior.

During the same period, some studies focused on analyzing the role of boundary spanners in successful verbal agreements (Kamann et al., 2006) and the trust between these individuals (Ireland & Webb, 2007; Caglio & Dittillo, 2008; Beugelsdijk et al., 2009; Janowicz-Panjaitan & Noorderhaven, 2009). These elements reinforce the need to study these individuals and their behavior. The type of control organizations adopt in an interorganizational relationship depends on the trust established between the boundary spanners, which precedes interorganizational trust (Gulati & Sytch, 2008).

Since 2010, studies have focused more on the roles of boundary spanners (Wu et al., 2010; Zhang et al., 2011; Williams, 2016; Vanneste, 2016; Marcos & Prior, 2017; Ekanayake et al., 2017; Larentis et al., 2018; Leonidou et al., 2018; Butt, 2019; Shen et al., 2019; Zhang et al., 2019) and the use of formal and informal controls and their interaction (Li et al., 2010; Knoppen & Sáenz, 2017; Dekker et al., 2019). This shows that, given the roles these individuals play in establishing and maintaining inter-organizational relationships, trust is an aspect that deserves special attention since it can determine the type of control that will predominate in the established relationship. This trust becomes greater as interpersonal bonds develop between

boundary spanners, which can be positively associated with the quality of the interorganizational relationship (Huang et al., 2016; Cai et al., 2017).

Research has also expanded to other perspectives in this same period, such as the roles boundary spanners play in interorganizational relationships. Organizations have expectations regarding the relationships established with partners, and these individuals can act according to this expectation or independently (Luvison & Cummings, 2017), according to the type of behavior when interacting with the partner organization's boundary spanners. They may present authoritarian or competitive behavior (Vesalainen et al., 2019).

3.3. INTERPERSONAL AND INTERORGANIZATIONAL RELATIONSHIPS

Some studies in this review mention interpersonal and interorganizational relationships without discussing their interdependence. Vanneste (2016) and Ekanayake et al. (2017) refer to interpersonal relationships as the social bond that a boundary spanner has with a member of another organization, while Butt (2019) refers to this bond as friendships at the individual level. These bonds are related to goodwill toward other individuals and groups, include sympathy, trust, and forgiveness (Williams, 2016), and are built on cultural premises (Larentis et al., 2018).

Other studies discuss interorganizational relationships without mentioning interpersonal relationships. Andersen and Kumar (2006) state that interorganizational relationships allow organizations to create joint value through rationalization and/or learning but do not mention the role of boundary spanners as individuals responsible for establishing and maintaining these interorganizational relationships.

Some studies argue that interorganizational relationships allow the survival and growth of organizations that cannot develop the knowledge base on their own and create conditions for organizations to access and share resources (Janowicz-Panjaitan & Noorderhaven, 2009), constituting an important source of competitive advantage (Zhang et al., 2011; Dekker et al., 2016). In these relationships, the parties largely influence each other's actions and attitudes (Ellegaard, 2012), and trust is fundamental (Shen et al., 2019; Zhang et al., 2019). However, these works are not concerned with addressing the role of boundary spanners in resource sharing nor how interorganizational trust can emerge from the interpersonal trust developed between these individuals.

The review identified studies that recognized the interdependence between interpersonal and interorganizational relationships (Walter & Gemünden, 2000; Andersen & Kumar, 2006; Kamann et al., 2006; Haytko, 2004; Luo, 2005; Chakkol et al., 2018). In common, these studies recognize that interorganizational relationships are developed and maintained by boundary spanners of partner organizations, who develop interpersonal relationships. These interpersonal relationships are fundamental for interorganizational relationships to achieve the objectives of the partner organizations.

Some of these studies rely on the social immersion approach, which emphasizes that economic action is immersed in social relationships to defend the interdependence between interpersonal and interorganizational relationships (Haytko, 2004; Kamann et al., 2006). According to the social immersion approach, the economic processes present in interorganizational relationships are possible by interpersonal relationships developed by boundary spanners, which reinforces the interdependence between interpersonal and interorganizational relationships.

An example of this dynamic is that partners in interorganizational relationships often resort to informal social relationships to solve problems and reduce uncertainty (Li et al., 2010). From close relationships between their boundary spanners, partner organizations can gain a competitive advantage and improve their performance (Grawe et al., 2015).

Another example highlighting the interdependence between interpersonal and interorganizational relationships is the development of interorganizational trust, which arises from boundary spanners and the interpersonal trust developed between these individuals (Vanneste, 2016; Williams, 2016). Thus, organizations need to be aware of the trust developed at the interpersonal level since it is the source of interorganizational trust, which is beneficial to organizations. For instance, greater interorganizational trust can minimize costs by replacing formal with informal controls (Li et al., 2010). Also, when there is greater interorganizational trust, organizations are less susceptible to the opportunism of partner organizations (Gulati & Sytch, 2008).

3.4. BOUNDARY SPANNERS IN INTERORGANIZATIONAL RELATIONSHIPS

Boundary spanners have been presented in the literature as organizational members who operate within organizational boundaries (Leifer & Huber, 1977) and are subject to internal and external influences (Dubinsky et al., 1985). Boundary spanners process information provided by the partner organization and represent their organization's interests in the relationship (Perrone et al., 2003) to achieve specific goals (Haytko, 2004). More recently, Andersen and Kumar (2006) conceptualized boundary spanners as individuals directly involved in the interorganizational process between buyer and supplier. Studies such as Ireland and Webb (2007), Wu et al. (2010), Zhang et al. (2011), and Schilke and Cook (2013) rely on the concept of Perrone et al. (2003), mentioned before in this article.

It was possible to observe a concern in the literature to discuss the boundary spanners' roles. Judging by the roles identified in the literature, actions taken by these individuals in conducting interorganizational relationships can generate significant effects.

The literature review found that they can mediate environmental influences and organizational structures (Leifer & Huber, 1977) as they receive, process, and transmit information (Dubinsky et al., 1985). Thus, information is shared between partner organizations through boundary spanners, so how these individuals conduct this information sharing process can be decisive in meeting the interests of the organization they represent and, at the same time, maintaining the relationship with the partner organization (Walter & Gemünden, 2000).

Also, these individuals are responsible and able to shape the perceptions and expectations of one organization toward another (Vesalainen et al., 2019). The parties involved in interorganizational relationships have expectations, and meeting such expectations is crucial for a sustainable relationship.

Boundary spanners are responsible for managing conflicts, solving problems with partners, and developing knowledge (Dekker et al., 2019). Therefore, Stouthuysen et al. (2019) refer to boundary spanners as the most relevant people for implementing and managing a buyer–supplier relationship.

Another interesting but less explored aspect of boundary spanners is their hierarchical position within organizations. According to Stouthuysen et al. (2019), these individuals can occupy different positions in the hierarchy of their respective organizations, and Janowicz-Panjaitan and Noorderhaven (2009) divide the hierarchical levels occupied by boundary spanners into operational and corporate levels. Operational–level boundary spanners are the primary agents of tacit knowledge learning in the relationship, and trust is the main determinant of knowledge sharing at this level. Enterprise–level boundary spanners shape structures and systems, affecting the extent of sharing between operational levels.

It should be noted that the roles are systematically different when comparing boundary spanners in positions at higher and lower levels of the corporate hierarchy. These differences based on

hierarchical levels strongly influence the focus of attention when learning about more effective controls (Stouthuysen et al., 2019).

3.5. CRITICISM OF INTERORGANIZATIONAL RELATIONSHIPS

The review found criticisms of interorganizational relationships, particularly regarding the organizations' exposure to relational risk, i.e., the risk of partners not cooperating in good faith, adopting opportunistic behavior, and obtaining unsatisfactory performance despite engaging in cooperation (Dekker et al., 2016).

It was possible to observe that the fear of a partner adopting opportunistic behavior could lead to the organization's low commitment to interorganizational relationships (Ireland & Webb, 2007). This fear is based on the risk of partners approaching each other to learn commercial or technological secrets (Janowicz-Panjaitan & Noorderhaven, 2009).

It was observed that boundary spanners could act opportunistically even when organizations demonstrate full interest and willingness in the interorganizational relationship. These individuals can act pursuing a personal interest to the detriment of the interests of their and the partner organizations (Perrone et al., 2013).

Another interesting aspect identified is that interpersonal relationships between boundary spanners can be powerful enough to maintain an interorganizational relationship, even long after it should have ended, which can go against the interests of the partner organizations. Furthermore, high levels of trust and personal involvement can increase vulnerability to opportunism in the relationship (Haytko, 2004).

3.6. AN INTEGRATED FRAMEWORK OF EXISTING RESEARCH

Existing research on boundary spanners in B2B interorganizational relationships can be categorized in different ways as they employ different methodologies, approach different theories, and discuss different aspects of these boundary spanners and interorganizational relationships.

Figure 1 shows the integration of the existing research on boundary spanners in B2B interorganizational relationships, according to the results detailed in Appendix I. The framework was developed in the context of supplier–buyer interorganizational relationships, in which boundary spanners represent both organizations at the operational and corporate levels.

The image presents an example of an interorganizational relationship between a supplier and a buyer organization at the organizational level. The literature review offered other perspectives of analysis included to illustrate a deepening of the interorganizational relationships. It is possible to observe that each organization is represented in the interorganizational relationship by their respective boundary spanners, i.e., the individuals who act as an interface between the partners.

These individuals may present different behaviors and actions. For example, boundary spanners may exhibit more or less opportunistic behavior, depending on the level of interpersonal trust established with their peers from the partner organization. They can show greater or lesser reciprocity between each other, and organizations have expectations regarding the roles they assign to boundary spanners.

Figure 1 also shows the boundary spanners' different hierarchical levels, such as the corporate and operational levels. When in positions at the corporate level, boundary spanners (in positions such as members of management teams and top managers) can influence the organization's direction, including strategies for the interorganizational relationship. At the operational level, boundary spanners (such as analysts and assistants conducting buying and selling transactions with partner organizations) are responsible for the routine implementation of relationship

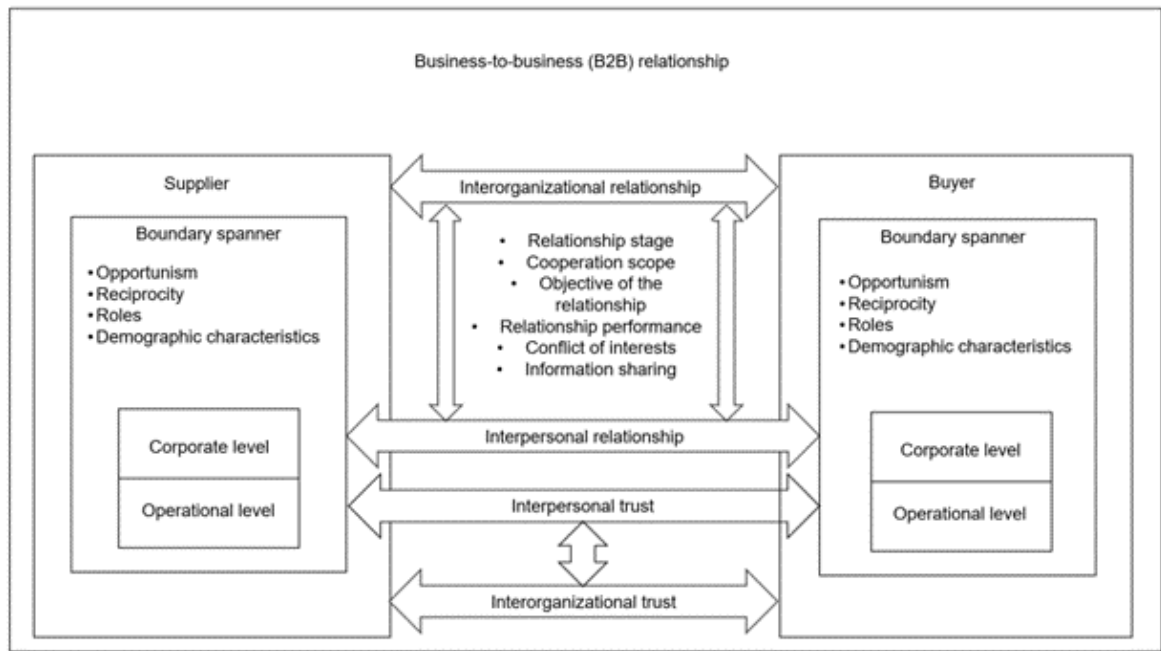


Figure 1. Integrated framework of existing research
Source: Elaborated by the authors

agreements. Thus, operational–level boundary spanners operate within structures and systems designed by corporate–level boundary spanners (Janowicz-Panjaitan & Noorderhaven, 2009)

The central part of Figure 1 presents the connection between the two organizations through the interorganizational relationship, which is interdependent on the interpersonal relationship between the boundary spanners. We also emphasize that this interorganizational relationship may present different development stages. It may vary according to the scope of activities related to the relationship between organizations and the objectives and performance the organizations expect from the relationship. The central part of Figure 1 shows the inter–organizational trust established between the partner organizations and its interdependence with the interpersonal trust between the boundary spanners.

4. SUGGESTIONS FOR FUTURE STUDIES

This section contributes to future research by presenting thoughts on the main themes identified from the systematic literature review and the analyses. The reflections below considered the research proposals presented in the articles analyzed.

4.1. STUDY OF INTERORGANIZATIONAL RELATIONSHIPS IMMERSSED IN INTERPERSONAL RELATIONSHIPS

The market has demanded that organizations increase the search for competitiveness, which depends on internal capabilities and established relationships with partner organizations. Interorganizational relationships become fundamental for organizations' survival and growth by enabling access to new information and resources.

It should be noted that economic action is immersed in social relationships, which means that interorganizational relationships are maintained and sustained by boundary spanners. This indicates that the study of interorganizational relationships is timely, but it must consider that they are immersed in interpersonal relationships. However, much of the literature researched

interorganizational and interpersonal relationships separately, with little discussion about the interdependence between interorganizational relationships and the interpersonal relationships involving boundary spanners.

Thus, this research points out the need to develop multilevel models to understand better the complex individual and company interrelationships (Vesalainen et al., 2019). It is important to explore these individuals' behaviors and their influence on the performance of inter-organizational relationships, considering the benefits identified in the literature (which makes this a promising topic for research).

Another aspect that deserves attention is trust. Despite being one of the most explored topics throughout the literature on boundary spanners in interorganizational relationships, few studies have been concerned with differentiating between interorganizational and interpersonal trust. Studies are necessary to verify how interorganizational trust and interpersonal trust are related and how they contribute to the maintenance and performance of the interorganizational relationship (Schilke & Cook, 2013).

Research on interorganizational and interpersonal trust is relevant because trust may be related to opportunism in interorganizational relationships. The literature shows that this opportunism can be at the interorganizational level, when organizations present opportunistic behavior toward the partner, and at the individual level when the boundary spanner seeks their own interests to the detriment of the interests of both organizations.

The literature also showed that trust is related to adopting informal controls, reducing costs, and exposing the organizations to more significant risks. Thus, trust can be investigated as an informal control mechanism compared to other informal or even formal controls (Stouthuysen et al., 2019).

More specifically, although the literature discusses the different types of control (formal and informal), the relationship between them is not analyzed, nor is the adoption of these controls considering the different stages of evolution of interorganizational relationships. Therefore, formal and relational controls should be analyzed at different relationship stages (Shen et al., 2019).

In summary, the continuity of research that deepens the study of interorganizational relationships immersed in interpersonal relationships seems timely. We still need to understand how these interpersonal relationships influence personal and organizational opportunism and the impacts on different aspects of organizational performance.

4.2. ROLES AND HIERARCHICAL LEVELS OF BOUNDARY SPANNERS IN INTERORGANIZATIONAL RELATIONSHIPS

Several roles have been assigned to boundary spanners in the literature, such as becoming the organization's interface with other partner institutions; receiving, processing, and transmitting information (Dubinsky et al., 1985); and developing and maintaining relationships (Walter & Gemünden, 2000). However, these roles are investigated in specific contexts defined by the researchers. Future studies can compare the roles that boundary spanners play in emerging and advanced economies (Liu & Meyer, 2018) and in different types of organizational activities and business environments (Wu et al., 2010).

Few studies have given due attention to the interpersonal relationships that support interorganizational relationships (Cai et al., 2017). Thus, it is important to research the interpersonal relationships between boundary spanners, primarily focusing on these individuals' roles and actions, who are relevant individuals in the process of building interpersonal and interorganizational trust in interorganizational relationships.

As mentioned before, the literature has been concerned about possible opportunistic behavior on the part of boundary spanners when they put their interests above the organization's interests. Thus, future research can help understand the roles of boundary spanners in contexts of opportunism and the impact of these behaviors on interorganizational relationships (Zhang et al., 2019).

The literature review revealed that boundary spanners can occupy different positions in the organization's hierarchy, acting at the operational and corporate levels. Regardless of the level at which they operate, boundary spanners are fundamental in managing cooperation between organizations. Thus, it is interesting to explore interpersonal relationships at different hierarchical levels (Perrone et al., 2003; Haytko, 2004; Huang et al., 2016) and study these individuals' different roles when occupying positions at different hierarchical levels. (Table 3).

Table 3
Directions to advance the framework

Themes	Main topics	Key questions
Interpersonal and Interorganizational relationships	Interorganizational relationships immersed in interpersonal relationships	How do interpersonal relationships and interorganizational relationships relate to each other? What conflicts can emerge between boundary spanners and their organizations? What conflicts can emerge from the immersion of interorganizational relationships in interpersonal relationships? How can boundary spanners' behavior influence interorganizational performance?
	Interrelations between formal control and relational control.	How can companies exercise control through trust beyond using formal controls? What is the effect of different perceptions of trust on the performance of interorganizational relationships?
Boundary spanners' roles and hierarchical levels	Trust as relational control	How does trust between organizations change throughout an interorganizational relationship, considering the individual and the organizational levels?
	Roles in different types of organizational activities, business environments, and positions in dyads	What roles do boundary spanners perform in emerging and advanced economies? What are the differences in roles boundary spanners take on throughout the many relationship stages?
	Characteristics and roles of boundary spanners at different organizational levels	What are the characteristics of interpersonal relationships among boundary spanners from different organizational levels?

Source: Elaborated by the authors

5. CONCLUSION, LIMITATIONS, AND IMPLICATIONS

This literature review aimed to answer the research questions: (i) How advanced is the literature on boundary spanners in interorganizational relationships, and (ii) which themes should emerge for future research? The study explored the literature on boundary spanners in interorganizational relationships in the B2B context and reviewed and analyzed the content of 45 articles. An overview of the articles was presented, discussing the characteristics of these publications, followed by an analysis of the development of the research through time, observing the definitions of interpersonal and interorganizational relationships. The concepts and roles attributed to boundary spanners were assessed, and criticisms about interpersonal relationships between boundary spanners in interorganizational relationships were observed and highlighted. Finally, it was possible to synthesize the main findings, subsidizing the elaboration of an integrated framework of existing research and suggestions for future research.

5.1. LIMITATIONS

This study has limitations regarding data collection and analysis. While we ensured rigorous and comprehensive analysis and synthesis procedures, our database selection and filtering processes may have omitted relevant studies. Other keywords and different databases could contain publications with different characteristics. However, we believe that this systematic review covered many publications on the research topic. In addition, even if the analyzed articles have been peer-reviewed, it is not possible to guarantee the quality of all analyzed publications.

5.2. IMPLICATIONS

We hope to help other researchers learn about the literature on boundary spanners in B2B interorganizational relationships, resorting to the authors mentioned here to carry out research that contributes to the advancement of knowledge in a practical and theoretical way. The literature review sheds light on several issues related to interorganizational relationships, more specifically on boundary spanners.

First, organizations have resorted to relationships with other organizations to achieve their goals, recognizing the need for cooperation through interorganizational relationships. Therefore, understanding these relationships is necessary to propose ways to maximize benefits and minimize risks and disadvantages in establishing these relationships.

Second, we observed that studies had explored buyer-supplier relationships at the organizational level, ignoring interpersonal relationships. When considering that interorganizational relationships are embedded in interpersonal relationships, it becomes essential to understand the behavior and roles of boundary spanners that sustain these relationships.

Thirdly, we observe an incipient discussion in the literature about boundary spanners at different levels of the organizational hierarchy. Thus, this seems a promising path for future research that shows organizations how to manage interpersonal relationships between boundary spanners at the operational and corporate levels.

Finally, this systematic literature review subsidizes suggestions for future research on relational controls, contributing to organizations by investigating how to implement a control structure that includes formal and relational controls more suited to interorganizational relationships.

REFERENCES

- Aldrich, H., & Herker, D. (1977). Boundary spanning roles and organization structure. *Academy of Management Review*, 2(2), 217–230. <https://doi.org/10.2307/257905>
- Andersen, P. H., & Kumar, R. (2006). Emotions, trust and relationship development in business relationships: A conceptual model for buyer–seller dyads. *Industrial Marketing Management*, 35(4), 522–535. <https://doi.org/10.1016/J.INDMARMAN.2004.10.010>
- Beugelsdijk, S., Koen, C., & Noorderhaven, N. (2009). A dyadic approach to the impact of differences in organizational culture on relationship performance. *Industrial Marketing Management*, 38(3), 312–323. <https://doi.org/10.1016/j.indmarman.2008.02.006>
- Butt, A. S. (2019). Absence of personal relationship in a buyer–supplier relationship: case of buyers and suppliers of logistics services provider in Australia. *Heliyon*, 5(6), e01799. <https://doi.org/10.1016/j.heliyon.2019.e01799>
- Caglio, A., & Ditillo, A. (2008). A review and discussion of management control in inter–firm relationships: Achievements and future directions. *Accounting, Organizations and Society*, 33(7–8), 865–898. <https://doi.org/10.1016/j.aos.2008.08.001>
- Cai, S., Jun, M., & Yang, Z. (2017). The effects of boundary spanners' personal relationships on interfirm collaboration and conflict: A study of the role of guanxi in China. *Journal of Supply Chain Management*, 53(3), 19–40. <https://doi.org/10.1111/jscm.12132>
- Chakkol, M., Karatzas, A., Johnson, M., & Godsell, J. (2018). Building bridges: *Boundary spanners* in servitized supply chains. *International Journal of Operations & Production Management*. <https://doi.org/10.1108/IJOPM-01-2016-0052>
- Corsten, D., Gruen, T., & Peyinghaus, M. (2011). The effects of supplier–to–buyer identification on operational performance—An empirical investigation of inter–organizational identification in automotive relationships. *Journal of Operations Management*, 29(6), 549–560. <https://doi.org/10.1016/j.jom.2010.10.002>
- Dekker, H., Ding, R., & Groot, T. (2016). Collaborative performance management in interfirm relationships. *Journal of Management Accounting Research*, 28(3), 25–48. <https://doi.org/10.2308/jmar-51492>
- Dekker, H., Donada, C., Mothe, C., & Nogatchewsky, G. (2019). *Boundary spanner* relational behavior and inter–organizational control in supply chain relationships. *Industrial Marketing Management*, 77, 143–154.
- Dubinsky, A. J., Hartley, S. W., & Yammarino, F. J. (1985). *Boundary spanners* and self–monitoring: An extended view. *Psychological Reports*, 57(1), 287–294. <https://doi.org/10.2466/pr0.1985.57.1.287>
- Ekanayake, S., Childerhouse, P., & Sun, P. (2017). The symbiotic existence of interorganizational and interpersonal ties in supply chain collaboration. *The International Journal of Logistics Management*, 28, 723–754. <https://doi.org/10.1108/IJLM-12-2014-0198>
- Ellegaard, C. (2012). Interpersonal attraction in buyer–supplier relationships: A cyclical model rooted in social psychology. *Industrial Marketing Management*, 41(8), 1219–1227. <https://doi.org/10.1016/j.indmarman.2012.10.006>
- Gao, T., Sirgy, M. J., & Bird, M. M. (2005). Reducing buyer decision–making uncertainty in organizational purchasing: can supplier trust, commitment, and dependence help?. *Journal of Business Research*, 58(4), 397–405.

- Grawe, S. J., Daugherty, P. J., & Ralston, P. M. (2015). Enhancing dyadic performance through *boundary spanners* and innovation: An assessment of service provider–customer relationships. *Journal of Business Logistics*, 36(1), 88–101. <https://doi.org/10.1111/jbl.12077>
- Gulati, R., & Sytch, M. (2008). Does familiarity breed trust? Revisiting the antecedents of trust. *Managerial and Decision Economics*, 29(2–3), 165–190. <https://www.jstor.org/stable/25151592>
- Haytko, D. L. (2004). Firm–to–firm and interpersonal relationships: Perspectives from advertising agency account managers. *Journal of the Academy of Marketing Science*, 32(3), 312–328. <https://doi.org/10.1177/0092070304264989>
- Hoe, S. L. (2006). The *boundary spanner's* role in organizational learning: Unleashing untapped potential. *Development and Learning in Organizations: An International Journal*, 20(5), 9–11. <https://doi.org/10.1108/14777280610687989>
- Hu, N., Wu, J., & Gu, J. (2019). Cultural intelligence and employees' creative performance: The moderating role of team conflict in interorganizational teams. *Journal of Management & Organization*, 25(1), 96–116.
- Huang, Y., Luo, Y., Liu, Y., & Yang, Q. (2016). An investigation of interpersonal ties in interorganizational exchanges in emerging markets: A boundary–spanning perspective. *Journal of Management*, 42(6), 1557–1587. <https://doi.org/10.1177/014920631351111>
- Ireland, R. D., & Webb, J. W. (2007). A multi–theoretic perspective on trust and power in strategic supply chains. *Journal of Operations management*, 25(2), 482–497. <https://doi.org/10.1016/j.jom.2006.05.004>
- Janowicz-Panjaitan, M., & Noorderhaven, N. G. (2009). Trust, calculation, and interorganizational learning of tacit knowledge: An organizational roles perspective. *Organization Studies*, 30(10), 1021–1044. <https://doi.org/10.1177/0170840609337933>
- Johlke, M. C., Stamper, C. L., & Shoemaker, M. E. (2002). Antecedents to boundary-spanner perceived organizational support. *Journal of Managerial Psychology*, 17, 116–128.
- Kamann, D. J. F., Snijders, C., Tazelaar, F., & Welling, D. T. (2006). The ties that bind: Buyer–supplier relations in the construction industry. *Journal of Purchasing & Supply Management*, 12(1), 28–38. <https://doi.org/10.1016/j.pursup.2006.03.001>
- Knoppen, D., & Sáenz, M. J. (2017). Interorganizational teams in low–versus high–dependence contexts. *International Journal of Production Economics*, 191, 15–25. <https://doi.org/10.1016/j.ijpe.2017.05.011>
- Larentis, F., Antonello, C. S., & Slongo, L. A. (2018). Organizational culture and relationship marketing: An interorganizational perspective. *Revista Brasileira de Gestão de Negócios*, 20(1), 37–56. <https://doi.org/10.7819/rbgn.v20i1.3688>
- Leifer, R., & Huber, G. P. (1977). Relations among perceived environmental uncertainty, organization structure, and boundary–spanning behavior. *Administrative Science Quarterly*, 235–247.
- Leonidou, L. C., Aykol, B., Fotiadis, T. A., & Christodoulides, P. (2018). Betrayal intention in exporter–importer working relationships: Drivers, outcomes, and moderating effects. *International Business Review*, 27(1), 246–258. <https://doi.org/10.1016/j.ibusrev.2017.07.005>
- Li, Y., Xie, E., Teo, H. H., & Peng, M. W. (2010). Formal control and social control in domestic and international buyer–supplier relationships. *Journal of Operations Management*, 28(4), 333–344. <https://doi.org/10.1016/j.jom.2009.11.008>

- Liu, Y., & Meyer, K. E. (2018). *Boundary spanners*, HRM practices, and reverse knowledge transfer: The case of Chinese cross-border acquisitions. *Journal of World Business*, 55(2), 100958. <https://doi.org/10.1016/j.jwb.2018.07.007>
- Luo, Y. (2005). How important are shared perceptions of procedural justice in cooperative alliances?. *Academy of Management Journal*, 48(4), 695–709. <https://www.jstor.org/stable/20159687>
- Luvison, D., & Cummings, J. L. (2017). Decisions at the boundary: Role choice and alliance manager behaviors. *Group & Organization Management*, 42(2), 279–309. <https://doi.org/10.1177/1059601117696620>
- Manosso, T. W. S., & Antoni, V. L. (2018). From value congruence between *boundary spanners* to satisfaction in B2B markets: A theoretical perspective. *Revista Alcance*, 25(2), 194–210. [https://doi.org/alcance.v25n2\(Mai/Ago\).p194-210](https://doi.org/alcance.v25n2(Mai/Ago).p194-210)
- Marcos, J., & Prior, D. D. (2017). Buyer–supplier relationship decline: A norms–based perspective. *Journal of Business Research*, 76, 14–23. <https://doi.org/10.1016/j.jbusres.2017.03.005>
- Mukherji, A., & Francis, J. D. (2008). Mutual adaptation in buyer–supplier relationships. *Journal of Business Research*, 61(2), 154–161.
- Olk, P. (1998). A knowledge–based perspective on the transformation of individual–level relationships into inter–organizational structures: The case of R&D consortia. *European Management Journal*, 16(1), 39–49.
- Perrone, V., Zaheer, A., & McEvily, B. (2003). Free to be trusted? Organizational constraints on trust in *boundary spanners*. *Organization Science*, 14(4), 422–439. <https://doi.org/10.1287/orsc.14.4.422.17487>
- Schilke, O., & Cook, K. S. (2013). A cross–level process theory of trust development in interorganizational relationships. *Strategic Organization*, 11(3), 281–303. <https://doi.org/10.1177/1476127012472096>
- Shen, L., Su, C., Zheng, X. V., & Zhuang, G. (2019). Between contracts and trust: Disentangling the safeguarding and coordinating effects over the relationship life cycle. *Industrial Marketing Management*, 84, 183–193. <https://doi.org/10.1016/j.indmarman.2019.06.006>
- Stouthuysen, K., Van den Abbeele, A., van der Meer–Kooistra, J., & Roodhooft, F. (2019). Management control design in long–term buyer–supplier relationships: Unpacking the learning process. *Management Accounting Research*, 45, 100643. <https://doi.org/10.1016/j.mar.2019.06.001>
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207–222. <https://www.cebma.org/wp-content/uploads/Tranfield-et-al-Towards-a-Methodology-for-Developing-Evidence-Informed-Management.pdf>
- Vanneste, B. S. (2016). From interpersonal to interorganisational trust: The role of indirect reciprocity. *Journal of Trust Research*, 6(1), 7–36. <https://doi.org/10.1080/21515581.2015.1108849>
- Vesalainen, J., Rajala, A., & Wincent, J. (2019). Purchasers as boundary spanners: Mapping purchasing agents' persuasive orientations. *Industrial Marketing Management*, 84, 224–236.
- Walter, A., & Gemünden, H. G. (2000). Bridging the gap between suppliers and customers through relationship promoters: theoretical considerations and empirical results. *Journal of Business & Industrial Marketing*, 15(2–3), 86–105. <https://doi.org/10.1108/08858620010316813>
- Williams, M. (2016). Being trusted: How team generational age diversity promotes and undermines trust in cross-boundary relationships. *Journal of Organizational Behavior*, 37(3), 346–373. <https://doi.org/10.1002/job.2045>

- Williamson, O. E. (1979). Transaction–cost economics: The governance of contractual relations. *The Journal of Law and Economics*, 22(2), 233–261. <https://www.jstor.org/stable/725118>
- Wu, Z., Steward, M. D., & Hartley, J. L. (2010). Wearing many hats: Supply managers' behavioral complexity and its impact on supplier relationships. *Journal of Business Research*, 63(8), 817–823. <https://doi.org/10.1016/j.jbusres.2009.07.001>
- Yang, J., Yu, G., Liu, M., & Rui, M. (2016). Improving learning alliance performance for manufacturers: Does knowledge sharing matter?. *International Journal of Production Economics*, 171(P2), 301–308. <https://doi.org/10.1016/j.ijpe.2015.09.022>
- Zhang, C., Viswanathan, S., & Henke, J. W., Jr. (2011). The boundary spanning capabilities of purchasing agents in buyer–supplier trust development. *Journal of Operations Management*, 29(4), 318–328. <https://doi.org/10.1016/j.jom.2010.07.001>
- Zhang, C., Zheng, X. V., & Li, J. J. (2019). Is collaboration a better way to develop trust after opportunism? Distinguishing firm and *boundary spanner* opportunism. *Industrial Marketing Management*, 82, 38–51. <https://doi.org/10.1016/j.indmarman.2019.02.018>
- Zhou, C., Hu, N., Wu, J., & Gu, J. (2018). A new scale to measure cross–organizational cultural intelligence. *Chinese Management Studies*, 12(3), 658–679. <https://doi.org/10.1108/CMS-10-2017-0309>

AUTHOR'S CONTRIBUTION


EF: Elaboration of the idea and development of the research at all stages.

VG: Elaboration of the idea, monitoring, and analysis of the research development at all stages.


CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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BBR APPENDIX I – Summary of The Key Contributions of The Identified Articles

20

398

Authors (Year)	Methodology	Theory (s)	Context	Results
Andersen and Kumar (2006)	Theory Develops systematic literature review and proposes model and propositions	N/A	Illustrative empirical cases	Emotions can have a direct impact on behavioral interaction, regardless of their impact through the trust mediator mechanism
Beugelsdijk et al. (2009)	Quantitative empirical. Cross-sectional field study of 124 dyads	Social Exchanges Theory	Individuals from 30 companies and partner companies from a Western European country	Differences in organizational culture are greater in relationships between companies with less success, but do not significantly influence the perceived success in the relationship.
Butt (2019)	Qualitative empirical. Case study, through semi-structured interviews with 24 senior managers	Social Capital Theory	10 Australian companies involved in the process of buying and selling logistics services	Butt (2019) noted that even in long-term transactions, in the absence of personal relationships, trust does not develop, and only limited commercial information is shared.
Caglio and Ditillo (2008)	Theory Systematic literature review	N/A	N/A	The authors reviewed management accounting research on management controls in inter-organizational contexts and evaluated achievements in this area
Cai et al. (2017)	Quantitative empirical. Questionnaire applied to 348 purchasing managers and 613 sales managers	Resource Dependency Theory	Cell phone distribution network, which consists of a Chinese cell phone manufacturer and its 277 independent resellers.	In establishing close and long-term interfirm relationships, boundary spanners can develop interpersonal “ganqing” between them through frequent interactions from formal meetings or informal meetings. “Ganqing” and “renqing” lead to greater cooperation and coordination between companies
Chakkol et al. (2018)	Qualitative empirical. Case study comprising 61 interviews in 11 companies	Boundary Spanning Theory	A UK commercial vehicle manufacturer network	In relation to the sector of performance, the study by Chakkol et al. (2018) shows that, in the services sector, the existence of functions, roles and practices of boundary spanners, implicit and explicit, is clearer and its influence considerably stronger than in other sectors. Many boundary spanners in the service sector not only operate within a single dyadic relationship between companies, but also have links with other boundary spanners from various companies in the network

Authors (Year)	Methodology	Theory (s)	Context	Results
Corsten et al. (2011)	Quantitative empirical. Initially, a series of 21 expert interviews with car manufacturers and suppliers was carried out. Subsequently, 346 questionnaires were applied with suppliers	Social Identity Theory	European automotive industry, 346 German supplier companies.	The supplier–buyer identification directly affects the relationship–specific investments and the exchange of information, although most of the latter effect is mediated by trust. The specific investments in the supplier relationship and the exchange of information play different but complementary roles in influencing operational performance
Dekker et al. (2016)	Quantitative empirical. Questionnaire applied with valid responses from 61 individuals	Transaction Cost Theory (TCE)	Financial management professionals from a partnership with a Dutch national organization	Performance management practices are associated with the strategic importance of collaboration and this association is mediated by the characteristics of the transaction in which the partners have chosen to participate. The collaboration objectives of the companies determine these practices through the choice of the transaction
Dekker et al. (2019)	Quantitative empirical. Applied questionnaire with valid answers of 200 CEOs	Organizational Control Theory and Social and Relational Exchanges Theory	2000 French companies of buyers and suppliers in the French region of Auvergne Rhône–Alpes	The relational behavior of supply chain partners' boundary spanners is particularly valuable in narrow scope collaboration, but reduces in value for broader scope collaborations
Dubinsky et al. (1985)	Quantitative empirical. Questionnaire applied with two samples with 120 valid answers in the insurance group and 162 in the retail group	N/A	Insurance company located in a large metropolitan area and a chain of department stores	Self–monitoring is not related to performance. The acquisition of knowledge about work through work experience, apparently does not change the (lack of) relationship between self–monitoring and performance
Ekanayake et al. (2017)	Qualitative empirical. Case study through interviews and informal observations	Social Networks Theory	Network of a pioneer domestic logistics service provider in Sri Lanka	Trust and reciprocity are incorporated at the personal level, whose benefits are shared by the broader collaboration at the company level.

BBR APPENDIX I – Cont.

20

400

Authors (Year)	Methodology	Theory (s)	Context	Results
Ellegaard (2012)	Theory Systematic literature review with the development of a model	Social Exchanges Theory	N/A	The cyclical development of an ever closer link between boundary spanners, with different types of perceived rewards and social psychological characteristics, characterizes the attraction process. This cyclical process develops the close relationship, characterized by high flexibility, durability, resistance, cooperation and performance.
Grawe et al. (2015)	Quantitative empirical. Questionnaire applied with final data for analysis of 81 dyads	N/A	Logistics service providers	Boundary spanners who perceive higher levels of external organizational support from a client develop greater emotional commitment to the client. A relationship was also found between innovation and logistical performance (from service providers and customers).
Gulati and Sych (2008)	Quantitative empirical. Questionnaires with 64 valid responses from Ford buyers and 67 from Chrysler buyers	N/A	Two major US automobile companies (Ford and Chrysler)	The story affects the formation of trust in a complex nonlinear manner, involving a period of ambivalence at the beginning of a relationship.
Haytko (2004)	Qualitative empirical. Data collected from a series of 20 interviews with account managers	Information Theory	Three different advertising agencies (a large, a medium-sized and a small in terms of revenue) located in three different areas in the United States	Personal relationships between boundary spanners can decrease role conflict and role ambiguity for these individuals, leading to greater job satisfaction and greater relationship satisfaction.
Hoe (2006)	Theory Systematic literature review	N/A	N/A	The role of boundary spanners in the acquisition, sharing and use of market knowledge is essential for success in organizational learning

Authors (Year)	Methodology	Theory (s)	Context	Results
Hu et al. (2019)	Quantitative empirical. Data obtained from questionnaires with valid responses from 54 inter-organizational teams	Trait Activation Theory	Inter-organizational teams in China.	Cultural intelligence is positively associated with employee creativity and performance. Team conflict is a significant contextual factor and influences the expression of cultural intelligence factors
Huang et al. (2016)	Quantitative empirical. Interviews were conducted with 11 senior managers and a questionnaire was applied with 251 valid responses	Social Embeddedness Theory and Boundary Spanning Theory	Chinese home appliance industry	Interpersonal ties at the highest levels (between top executives) and at the lowest levels (between sellers and individual buyers) are both positively associated with the quality of the buyer-supplier relationship through dyads. Comparing the two levels of interpersonal ties, ties at the lower levels exhibit a stronger association with the quality of the relationship than ties at the highest levels
Ireland and Webb (2007)	Theory Systematic literature review	Social Capital Theory; Resource Dependency Theory; Transaction Costs Theory	N/A	Four strategies are presented that partners participating in a strategic supply chain can use to develop optimal levels of power and trust
Janowicz-Panjaita and Noorderhaven (2009)	Theory Systematic literature review and model development	Role Theory	N/A	Because of the unique learning-related roles played by boundary spanners at both levels, different factors would determine the extent of their cooperative learning behaviors
Johlke et al. (2002)	Quantitative empirical. Data obtained from questionnaires with 235 valid answers from salespeople who attended companies in IORs	N/A	Professional sellers from four inter-company service companies and an insurance company selling mainly to companies	The employee's gender, the amount of formal organizational recognition received and the quality of task-related training are associated with perceived organizational support

Authors (Year)	Methodology	Theory (s)	Context	Results
Kamann et al. (2006)	Quantitative empirical. Data obtained from questionnaires with 448 valid answers.	Transaction Cost Theory; Social Embeddedness Theory	Dutch construction industry	It makes sense to distinguish between cases that are governed by a written contract, versus those that are governed only by verbal agreement. In smaller, less problematic transactions, verbal agreements are used (and relatively successful)
Knoppen and Sáenz (2017)	Quantitative empirical. Data obtained from questionnaires with 413 valid answers.	Relational view of the company; Working Team Theory. Contingency Theory	An American multinational company that distributes components and spare parts for heavy machinery	Psychological safety and relationalism improve all facets of the results of the relationship with suppliers, with the exception of efficiency
Larentis et al. (2018)	Qualitative empirical. Multiple cases in two marketing channels, through interviews, observation and data analysis	N/A	Two strategic business units (SBUs) located in southern Brazil, from different industrial groups (customized furniture and financial services)	Trust, commitment, cooperation and learning processes are related to organizational cultural changes and the reduction of role conflicts for boundary spanners, as well as the role of staff turnover in weakening these dimensions and their relationships
Leifer and Huber (1977)	Quantitative empirical. Cross-sectional field study. Applied questionnaire with valid answers of 182 employees	Contingency Theory	A health and wellness organization, focused on family problems, adoption, social work and so on, in a state government	The role of the boundary spanner mediates the relationship between environmental influences and organizational structures
Leonidou et al. (2018)	Quantitative empirical. Questionnaire with 268 valid answers applied with representatives of exporters	Rational Action Theory	Indigenous exporters of manufactured products based in Greece	In an importer-exporter relationship, an importer's intention to betray is subsequently very likely to turn into real betrayal in the relationship
Li et al. (2010)	Quantitative empirical. Questionnaire applied with CEO or boundary spanner with 580 valid answers	Social Network Theory; Institutional Theory	Manufacturing companies in China	The influence of the duration of cooperation in the use of social control mechanisms is positive and significant in international cooperation, but insignificant in domestic cooperation.

Authors (Year)	Methodology	Theory (s)	Context	Results
Liu and Meyer (2018)	Qualitative empirical. In-depth semi-structured interviews with 22 managers, both at the senior as well as middle level.	Boundary Spanning Theory	Chinese acquisitions in Germany and the United Kingdom	A conceptual framework for reverse knowledge transfer with two mechanisms is proposed – enabling and materializing
Luo (2005)	Quantitative empirical. Questionnaire with 176 valid answers collected in 440 alliances.	Alliance Theory	International cooperative alliances in China	The alliance's profitability is higher when both parties perceive high rather than low procedural justice. Profitability is also higher when the parties' perceptions are high than when one party perceives high procedural justice, but the other perceives low procedural justice
Luvison and Cummings (2017)	Theory Develops propositions.	Role Theory	N/A	They argue that the role theory's ability to explain employee behavior is incomplete when viewed in terms of an alliance context. Present and discuss the reasons
Manosso and Antoni (2018)	Theory Develops systematic literature review and proposes a model and propositions	Similarity-Attraction Theory; Social Exchange Theory	N/A	The developed theoretical model proposes the evaluation of the impact of the congruence of the human values of the boundary spanners in the satisfaction of the members involved in IORs
Marcos and Prior (2017)	Qualitative empirical. Gathering data from focus groups, semi-structured interviews and document analysis	Transaction Cost Theory	A buyer-supplier relationship with a thirty-year history. The customer's company is a global aircraft systems manufacturer and integrator and employs more than 50,000 people worldwide	The study identifies three main phases of the relationship decline: ignorance, divergence and degeneration

Authors (Year)	Methodology	Theory (s)	Context	Results
Olk (1998)	Qualitative empirical. 43 questionnaires received by consortium managers and 207 questionnaires received from consortium companies	Transaction Costs Theory	US R&D Consortia	Present propositions on the relationship of individual and organizational factors in the consortium
Perrone et al. (2003)	Quantitative empirical. Semi-structured interviews with 20 purchasing managers	Role Theory	Companies in the “Electronics and other electrical equipment and components” section of NAPM	Giving purchasing managers greater autonomy improves customer representative confidence in purchasing managers
Schilke and Cook (2013)	Theory Develops systematic literature review and proposes a model and propositions	Trust Development Process Theory	N/A	The proposed model identifies new factors worthy of further exploration in future empirical research
Shen et al. (2019)	Quantitative empirical. Questionnaire with 627 valid answers applied to retailers’ purchasing managers	Life Cycle Theory	Dyads between manufacturers and retailers in the Chinese home appliance industry	The mutual relationship between contracts and trust of goodwill will vary with the changing perceptions of the exchange partners of the main role of contracts at different stages of the relationship
Stouthuysen et al. (2019)	Qualitative empirical. Case study	Organizational Learning Theory; Role Theory	Relationship between MultiGoods and the FacilityNet provider	Boundary spanners learn to control in a variety of ways, including trial and error, third-party advice, experimentation, multi-level learning (i.e. corporate boundary spanners learning from operational boundary spanners) and partner advice
Vanneste (2016)	Theory Construction and analysis of a relationship simulation model	Social Exchange Theory; Network Theory	N/A	Inter-organizational trust comes from individuals and their dispositions, actions and observations. Organizations cannot trust, only their employees

Authors (Year)	Methodology	Theory (s)	Context	Results
Vesalainen et al. (2019)	Quantitative and qualitative empirical. Two stages with 178 and 79 valid responses respectively	Institutional Theory; Multiple Governance Approach	Finnish manufacturing sector.	Not all buyers can be considered ideal boundary spanners, due to the adoption of certain persuasive guidelines. The role of the boundary spanner for a buyer is therefore related to the way they communicate and behave in relations with suppliers.
Walter and Gemünden (2000)	Quantitative empirical. Questionnaire with 213 valid answers.	N/A	Supplier companies in Germany	The advancement of the relationship through a relationship promoter at the customer's supplier or company has a significant positive impact on sales growth in the relationship and on the supplier's participation in a customer's business.
Williams (2016)	Quantitative empirical. Questionnaire with 227 valid answers applied with senior level consultants	Social Categorization Theory; Social Capital Theory	Top 10 international management consultancy companies based in the USA	Generational diversity among the client team members of a client organization harms the perception of reliability in the homogeneous dyads of the boundary spanner with the client
Wu et al. (2010)	Quantitative empirical. Questionnaire with 70 pairs of valid answers applied to supply managers and account executives	N/A	16 purchasing companies that are members of supply management institutes	Four roles were identified that are performed when managing relationships with suppliers: negotiator, facilitator, supplier's lawyer and educator.
Zhang et al. (2011)	Quantitative empirical. Questionnaires with 230 valid answers from salespeople in the automotive industry and 125 salespeople in the food industry	Boundary Spanning Theory	Production goods suppliers from two major global manufacturing companies in the automotive and food industries	A purchasing agent's effectiveness in strategic communication with suppliers affects a supplier's trust in the purchasing company. Trust in the purchasing agent, in turn, affects trust in the purchasing company

BBR APPENDIX I – Cont.

20

406

Authors (Year)	Methodology	Theory (s)	Context	Results
Zhang et al. (2019)	Quantitative empirical. Questionnaire with 287 valid responses from purchasing managers and senior executives	Equity Theory	China Statistics Bureau manufacturing companies	Tolerance has a positive effect on restoring confidence under boundary spanner opportunism, but negatively affects confidence in firm opportunism, while aggression makes restoring confidence even more in the organization's opportunism than in the boundary spanner's opportunism
Zhou et al. (2018)	Quantitative empirical. Applied questionnaire with 196 valid answers	N/A	Participants were from companies, governments and others located in China and Hong Kong	Expands the field of research in cultural intelligence and proposes a four-dimensional scale was developed to measure it, which includes cognition, motivation, collaborative communication and behavioral adaptability

*N/A = Not applicable / Not Available