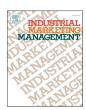
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Social capital in buyer-supplier relationships: A review of antecedents, benefits, risks, and boundary conditions

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ABSTRACT

The concept of social capital advocates that the goodwill available from relations is a valuable resource that can facilitate collective actions. Although social capital has recently gained momentum in the buyer-supplier relationship (BSR) literature, there is a surprising lack of consensus about its antecedents, benefits, risks, and boundary conditions in such relationships. To address this void, a systematic literature review of seventy articles published in peer-reviewed journals between 2002 and 2018 was undertaken. The review identified and discusses two types of antecedents that can give rise to social capital in BSRs, namely intrafirm-level and relationship-level antecedents (i.e., structural and relational). It reveals that social capital can lead to a variety of benefits, in the form of direct performance improvements (e.g., operational) and relationship benefits (e.g., knowledge sharing), however that these benefits may vary depending on a number of boundary conditions in BSRs (e.g., contract specificity). The review also highlights that although social capital can generate benefits, it can also lead to risks that can undermine the performance and evolution of BSRs (e.g., reduced exploratory learning), suggesting a 'double-edged sword' effect. The paper concludes by summarizing current research gaps and outlining promising directions for future research.

1. Introduction

Social capital theory generally holds that individuals' or organizations' networks of relationships can be considered as valuable resources that facilitate collective actions (Adler & Kwon, 2002; Inkpen & Tsang, 2005; Pillai, Hodgkinson, Kalyanaram, & Nair, 2017), providing them with "collectively-owned capital" which entitles them to credit in the various senses of the word (Bourdieu, 1986, p. 249). From sociology, social capital has attracted considerable scholarly attention across various social sciences disciplines to study different social relations at different levels (Kwon & Adler, 2014; Nahapiet & Ghoshal, 1998; Portes, 1998) ranging from the macro-level (i.e., nations) (Fukuyama, 2001), through the meso-level (e.g., communities (Putnam, 1995); networks (Burt, 1992); groups (Oh, Labianca, & Chung, 2006); and interorganizational relationships (Inkpen & Tsang, 2005)) to the microlevel (i.e., individuals) (Pena-López & Sánchez-Santos, 2017). In business and management research, social capital has also occupied a prominent place (Kwon & Adler, 2014; Lee, 2009), where it has been applied to understand management and organizational phenomena at different level of analysis (Payne, Moore, Griffis, & Autry, 2011).

The notion of social capital is gaining momentum in the buyersupplier relationship (BSR) domain. This is arguably because social capital not only provides a useful and rich perspective to help explain and theorize the characteristics and nature of connections and cooperation in the relationship (Carey, Lawson, & Krause, 2011; Krause, Handfield, & Tyler, 2007; Roden & Lawson, 2014), but also because as the accumulated goodwill that exists between buyer and supplier, social capital is capable of explaining and predicting many important behaviours and outcomes in the relationship (Lawson, Tyler, & Cousins, 2008: Villena, Revilla, & Choi, 2011). Prior research has suggested that social capital can underpin and contribute to effective BSRs by increasing knowledge exchange (Hung, Chen, & Chung, 2014; Kim, Umanath, Kim, Ahrens, & Kim, 2012), learning (Huikkola, Ylimäki, & Kohtamäki, 2013; Kohtamäki & Bourlakis, 2012), resilience (Johnson, Elliott, & Drake, 2013), responsiveness (Grawe, Daugherty, & Dant, 2012) and innovation (Kulangara, Jackson, & Prater, 2016; Tsai, Joe, Ding, & Lin, 2013), and by reducing opportunism (Lioliou & Zimmermann, 2015; Wang, Li, Ross, & Craighead, 2013). As such, examining social capital in the context of BSRs has important theoretical and practical implications.

The study of the social capital concept has relatively become a focal

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research stream within the BSR literature. Indeed, an increasing number of studies have focused on the antecedents, benefits, risks, and boundary conditions of social capital. However, while there is a growing interest in analysing a variety of antecedents of social capital, it is not easy to understand and differentiate these antecedents from an integrative perspective. The potentially reciprocal relationships between antecedents, social capital, and outcomes adds further difficulty in differentiating the antecedents from the outcomes of social capital and vice versa. Moreover, the increasing number of empirical studies examining the outcomes of social capital that have yielded contradictory results (e.g., Gelderman, Semeijn, & Mertschuweit, 2016; Son, Kocabasoglu-Hillmer, & Roden, 2016) suggests the need for new efforts to try to reach consensus on the outcomes of social capital and for clarifying the potentially complex relationship between them by taking into account boundary conditions. Furthermore, the clear prevalence of research on the positive outcomes of social capital (Villena et al., 2011) appears to have led to an underestimation of the negative consequences it can generate in the BSR, resulting in a lack of understanding of the nature of risks associated with social capital and when and why do they emerge. Despite these persisting challenges facing the further advancement of social capital research in BSRs, there is, surprisingly, the lack of an organized and integrative view to understanding the antecedents, benefits, risks, and boundary conditions of social capital and where future inquiry should be directed. Therefore, the first goal of this review was to synthesise and organize the current literature on social capital in BSRs research into an integrative framework of antecedents, benefits, risks, and boundary conditions of social capital. Based on this, our second goal was to identify current research gaps and detail important future research directions.

A systematic literature review (Tranfield, Denyer, & Smart, 2003) and snowballing search (backward and forward) were carried out to identify all the relevant high-quality research work on social capital in BSRs. The review identified 70 papers published in peer-reviewed scholarly journals between 2002 and 2018. A descriptive analysis of the selected papers was undertaken to provide an overview profile of the social capital research in BSRs in terms of publication trend, methodological approach, research perspective (single- or dyadic- perspective), and the research's social capital dimension(s) focus. We then conducted a thematic analysis of the literature under the four main themes of antecedents, benefits, risks, and boundary conditions. Accordingly, this study contributes to the BSR literature in two important ways. First, the review comprehensively analyses and categorizes the antecedents, benefits, risks, and boundary conditions of social capital in BSRs, which are then developed into an integrative framework explicating the status of the current literature and providing a frame of reference for future scholarship to build on. Second, the study lays a foundation for future inquiry by identifying current research gaps and suggesting a number of important research directions covering different vital aspects of social capital in BSR research to help advance the theory and practice of BSRs.

The remainder of the paper is organized as follows. In the next section, a brief overview of social capital is provided before our methodology is discussed in Section 3. Section 4 presents the findings of the descriptive analysis and the antecedents, benefits, risks, and boundary conditions of social capital. Section 5 outlines important future research directions. The paper concludes by outlining the theoretical contributions and limitations of the study in Section 6.

2. Social capital

The broad, simple understanding of social capital as potential resources derived from social relations that facilitate collective actions (Adler & Kwon, 2002; Inkpen & Tsang, 2005; Uzzi, 1996) has been criticized for its vagueness and ambiguity regarding what aspects of social relations give rise to social capital, and conversely what constitutes social capital in relationships (Robison, Schmid, & Siles, 2002). As a result, the concept has been subject to considerable scholarly work and

debate to help to clarify the source and nature of social capital in social relations. As for the source, two perspectives have shaped our understanding of the specific aspects of social relations that generate social capital: the structural and the relational perspectives (Adler & Kwon, 2002; Kostova & Roth, 2003). Informed primarily by social network theories, the proponents of the structural perspective have emphasized the importance of features of relation structure (e.g., Baker, 1990; Putnam, 1995). On the other hand, the relational perspective has highlighted the role of relations content (e.g., norms and beliefs) (Adler & Kwon, 2002; Kostova & Roth, 2003). Bringing these two perspectives together, Adler and Kwon (2002, p. 23) proposed that "Social capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor". In respect of the nature of social capital, Nahapiet and Ghoshal's (1998) conceptualisation: "the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit"; has been a key guide for considerable subsequent scholarly work. Nahapiet and Ghoshal (1998) argued that the essence of social capital can be captured through three dimensions: relational, cognitive, and structural.

Relational capital refers to the goodwill that exists between actors and is leveraged through a history of repeated interactions (Burt, 2000; Granovetter, 1992). It is a multi-faceted concept that includes the trust, obligation, identification, respect, and friendship that present in the relationships between partners (Kale, Singh, & Perlmutter, 2000; Nahapiet & Ghoshal, 1998). The cognitive capital dimension refers to "those resources providing shared representations, interpretations, and systems of meaning among parties" (Nahapiet & Ghoshal, 1998; p. 244). Cognitive capital manifests when partners have shared language, codes, and system of meanings (Nahapiet & Ghoshal, 1998), and aligned organizational culture, business philosophy, goals, and vision (Villena et al., 2011). It reflects a mutuality of expectations and similar perceptions that enable buyer and supplier to identify common and appropriate procedures for the achievement of mutual goals and tasks (Roden & Lawson, 2014; Son et al., 2016). Structural capital represents the overall pattern of connections between partners (Nahapiet & Ghoshal, 1998) in terms of the presence, frequency, and strength of social interactions (Tsai & Ghoshal, 1998). These social interactions consist of social processes and activities established between buyer and supplier to coordinate and structurally embed the relationship (Alghababsheh & Gallear, 2020; Roden & Lawson, 2014).

Given its increasingly recognized important role in relationships, social capital is argued to share properties with other forms of capital (e. g., economic, physical, and human) (e.g., Adler & Kwon, 2002; Lin, 2001; Nahapiet & Ghoshal, 1998; Robison et al., 2002). Similar to other forms of capital, social capital is viewed as flexible and having utility for multiple purposes (Adler & Kwon, 2002; Coleman, 1988; Robison et al., 2002). For instance, in an inter-organizational relationship, social capital facilities information sharing between partners (Kim et al., 2012), while also working towards curbing opportunism (Wang et al., 2013). Like other forms of capital, it can be an alternative and/or supplement to other forms of capital (Adler & Kwon, 2002). As a substitute, individuals can compensate for lack of financial resources and human skills by having strong and valuable connections (Adler & Kwon, 2002). As a supplement, social capital can enhance the productivity of economic capital by reducing transaction and monitoring costs (Robison et al., 2002). Social capital also requires maintenance like other forms of capital (Adler & Kwon, 2002). A lack of continuous contacts and interactions between actors can reduce the strength of the social relations and thus its potential benefits (Robison et al., 2002). Like other forms of capital, social capital is an asset that needs investment to achieve benefits in the short and long-term (Bourdieu, 1986; Portes, 1998). It is a product of endless efforts, but by building it actors can obtain benefits such as access to information, power and solidarity (Adler & Kwon, 2002).

Social capital also has some properties that make it distinctive from other forms of capital. In contrast in particular to human capital which resides in the actors, social capital is embedded in a social relationship (Portes, 1998; Robison et al., 2002). Social capital is jointly owned by actors (Nahapiet & Ghoshal, 1998) and no single actor has exclusive ownership rights to it (Burt, 1992). Thus, it can be argued that social capital 'vanishes' with the end of the relationship. Moreover, while physical capital is generated by transforming materials into systems and tools, and human capital is created by changes in individuals who develop their skills, social capital arises via changes in the relations among actors (Coleman, 1988). Furthermore, unlike other forms, social capital cannot be traded by people on an open market, not least because often it is 'inherited' in the social relationship (Leana & Van Buren, 1999) or develops organically. Unlike other forms of capital, the benefits of social capital are generally not limited to the individual who possess it, they are also often accessible to all within the associated community (Kostova & Roth, 2003). Social capital provides direct primary benefits to the 'owners' (Burt, 1997), and secondary benefits to those within the connected community without them necessarily having had to participate in its creation (Putnam, 1993).

3. Review methodology

This study follows the systematic literature review (SLR) methodology (Tranfield et al., 2003), which unlike the narrative review approach, provides a transparent and replicable synthesis of existing knowledge (Rousseau, Manning, & Denyer, 2008). The SLR methodology involves three major stages: planning the review, conducting the review, and reporting and disseminating the findings (Tranfield et al., 2003). The planning stage, namely articulating the relevance and the urgent need to consolidate the existing knowledge on social capital in BSRs in terms of the antecedents, benefits, risks, and boundary conditions of social capital, were previously described in the introduction section of the paper.

In conducting the review stage, the search terms/strings set out in Table 1 were identified through a thorough reading of the theoretical foundations of social capital theory, and existing literature in BSRs and through discussions with expert peer academics. The terms/strings were used to search within the title, abstract, and keywords in the Scopus database for the relevant peer-reviewed articles published only in the English language up to and including 2018. The Scopus database is widely advocated as it not only contains the largest collection of published articles in the Operations, Industrial Marketing and Supply Chain Management fields, but also because it updates with newly published material on a daily basis, making it the most frequently updated database available. The initial search identified 397 articles of which 211 were excluded based on a close and detailed abstract analysis. A further four articles were discarded as they were not published in peer-reviewed scholarly journals listed in the Chartered Association of Business Schools (CABS) Academic Journal Guide (2018). This action was necessary to help to ensure the quality of the review (David & Han, 2004) and CABS was used as the guide because it is widely regarded as a reliable measure of research rigour and quality (Johnsen & Lacoste, 2016; Miemczyk, Johnsen, & Macquet, 2012). Based on a full text scrutiny of the remaining 186, many other articles were excluded for several important

Table 1Keywords used in the social capital literature search.

Terms for Social capital		Terms for BSRs
"Social capital" OR "Relational capital" OR "Relational embeddedness" OR "Cognitive capital" OR "Structural capital" OR "Structural embeddedness"	AND	"Business-to-business" OR "B2B" OR "Supply chain" OR "Buyer-seller" OR "Buyer-supplier" OR "Supplier" OR "Purchasing" OR "Procurement" OR "Outsourcing"

reasons. First, studies that used social capital theory simply as an explanatory framework without examining its main constructs were excluded. Second, studies that did not examine the antecedents, benefits, risks, or boundary conditions of social capital were discarded given the stated aim and scope of this review. Third, studies focussing on the discussion of social capital in inter-organizational relationships in general terms without an exclusive focus on BSRs were also excluded. Forth, studies that explored the impact of intra-organizational social capital on BSR outcomes were also omitted (e.g., Ataseven, Nair, & Ferguson, 2018; Stolze, Mollenkopf, Thornton, Brusco, & Flint, 2018). Thus, after this detailed evaluation process had been completed, 62 articles remained and were selected for the review. To be assured that no relevant papers were left out, we followed Tranfield et al.'s (2003) advice and checked again by using cross-referencing search in addition to the systematic search. Specifically, backward and forward snowballing searches were used (see Greenhalgh & Peacock, 2005; Jalali & Wohlin, 2012). Although the literature is extremely limited in what criteria should govern the selection of key starting papers for a snowballing search (Jalali & Wohlin, 2012), we used the articles by Cousins, Handfield, Lawson, and Petersen (2006), Lawson et al. (2008), Carey et al. (2011), and Villena et al. (2011) for two primary reasons. First, the articles represent some of the first explicit empirical examinations of social capital in the context of BSRs, and therefore they could serve as a starting point to identify early theoretical discussions on the topic. Second, these articles received the highest number of citations (as indicated by Google Scholar) among the articles selected in our review, and hence provided a comprehensive reference point from which to perform our forward snowballing. In the subsequent backward snowballing, we examined the reference list of these key articles to identify further relevant papers. We then also checked the reference lists of those additional papers to identify other relevant articles. We continued this process until no further relevant articles were found. In the forward snowballing, we traced the citations of the key articles using Google Scholar to identify further relevant articles. The snowballing (both backwards and forward) search process yielded 13 potential papers of which 5 were discarded (for the same reasons stated above), bringing the total to 70 papers (see the Appendix for full list).

Finally, in the reporting and disseminating the findings stage, a two-part report of the findings was produced following the recommendations of Tranfield et al. (2003). In the first part, a broad-ranging descriptive analysis of the extant literature in term of several categories, including publication trend over time, the methodological approach, the research perspective (single- or dyadic- perspective), and social capital dimension (s) examined was prepared. In the second part, a thematic analysis of the literature to draw insights pertaining to the antecedents, benefits, risks, and boundary conditions of social capital in BSRs was produced. This was completed by adopting a theme-centric analysis (Webster & Watson, 2002), in which all papers were individually analysed and then grouped into a theme matrix according to their thematic focus. The following section presents the two-part report of the review findings.

4. Analysis and findings

4.1. Descriptive findings of social capital research in BSRs

4.1.1. Publication trend over time

The review shows that there has been a gradual growth in the volume of publications dealing with the antecedents, benefits, risks, and boundary conditions of social capital in BSRs between 2002 and 2018 (see Fig. 1). Although a steady but very limited flow of papers began to appear from 2006, real growth began in 2008 when five of the articles were published in one year, however followed by a decline in 2009. Since then the number of articles appearing annually started to increase, although with fluctuations, peaking in 2017 (12 articles) and in 2018 (11 articles), respectively.

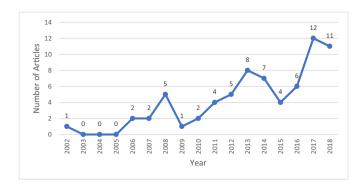


Fig. 1. Distribution of social capital research over the review period.

4.1.2. Distribution of publications among journals

The 70 social capital articles identified in the review were located across 40 different peer-reviewed journals (see Table 2). The scope of the majority of the journals is Industrial Marketing, Operations, and Supply Chain Management. Industrial Marketing Management recorded the highest number of social capital publications (6 papers; representing 8.57%), followed by the Journal of Operations Management (5; 7.14%) and the Journal of Business and Industrial Marketing (4; 5.71%) and Supply Chain Management: An international journal (4; 5.71%). Three articles (4.28%) appeared in each of International Journal of Information Management, International Journal of Operations and Production Management, International Journal of Production Economics, Journal of Business Logistics, Journal of Supply Chain Management, and Journal of World Business. Two articles (2.85%) were published in each of three other journals (Industrial Management & Data Systems, International Journal of Production Research, and Production and Operations Management), and a single article was published in each of the remaining 27 (38.57%) scientific journals (listed under 'other journals' as shown in Table 2).

4.1.3. Methodological approach

The extant research has employed different methodological approaches, including conceptual development, survey, and case study to examine the antecedents, benefits, risks, and boundary conditions of social capital in BSRs. It was clearly evident that the vast majority of the 70 studies used survey as their methodological approach (54 articles, representing 81.4%). This is followed by case study (10; 14.2%) (e.g., Huikkola et al., 2013) and then conceptual development (6, 8.5%) (e.g., Carey & Lawson, 2011). However, almost all of the empirical research

Table 2Distribution of social capital papers in journals.

No.	Journal	Number of publication	%
1.	Industrial Marketing Management	6	8.57
2.	Journal of Operations Management	5	7.14
3.	Journal of Business & Industrial Marketing	4	5.71
4.	Supply Chain Management: An international journal	4	5.71
5.	Int. Journal of Information Management	3	4.28
6.	Int. Journal of Operations and Production Management	3	4.28
7.	Int. Journal of Production Economics	3	4.28
8.	Journal of Business Logistics	3	4.28
9.	Journal of Supply Chain Management	3	4.28
10.	Journal of World Business	3	4.28
11.	Industrial Management & Data Systems	2	2.85
12.	Int. Journal of Production Research	2	2.85
13.	Production and Operations Management	2	2.85
14.	Other journals	27	38.57
Total	-	70	%
			100

adopted a cross-sectional design to data collection, which makes it difficult to demonstrate the existence and direction of causality between variables. This is because the cross-sectional designs involved collecting data on antecedents, social capital, outcomes, and boundary conditions at a single point in time without allowing time lags between them. Time lags between variables' measurement is necessary to allow the cause (social capital) to have an effect (outcomes). We located only two studies that had adopted a longitudinal design to data collection (Presutti, Boari, & Fratocchi, 2016; Verwaal, 2017). Future scholarship should consider longitudinal design as a more effective approach to substantiate the existence of causality and to rule out the possibility of reverse causation between antecedents, social capital, and outcomes. Additionally, we encourage researchers to adopt longitudinal case study design to fully capture the dynamic nature of how social capital as a complex relational aspect embedded in the BSR develops over the BSR life cycle and its possible impact.

4.1.4. Research perspective

In this review, research perspective indicates the side(s) of the BSR from which the research data was collected to capture the level of social capital embedded in the relationship. The 64 empirical studies (of the 70 total) included in the review can be classified into three categories according to the research perspective, namely single-side perspective (buyer or supplier), dyadic perspective (buyer and supplier), multipleperspective (buyer plus tier 1 and 2 suppliers). The analysis revealed that 51 studies (79.6%) adopted a single-side perspective, of which 35 were the buyers' perspective and 16 were the suppliers', while 11 studies (17.1%) employed a dyadic perspective and only two studies (3.1%) used a multiple-perspective. The scarcity of research using a dyadic or multiple-perspective approach can be mainly attributed to the significantly increased difficulty in gathering valid and reliable data from more than one side of the relationship and to the analytical difficulty in analysing and presenting data from paired/grouped relationships (Roh, Whipple, & Boyer, 2013).

Although collecting data from a single side of the BSR has been an important research design in advancing the theory of social capital in the BSR literature, it may limit the validity of research conclusions since it attempts to captures a dyadic construct (such as social capital) that in practice is developed and shared between two parties from the perspective of only one side in the relationship (Son et al., 2016). A dyadic construct represents attributes or phenomena that exist across and involve multiple stakeholders (buyer-supplier) of interest (Flynn, Pagell, & Fugate, 2018; Ketchen Jr, Craighead, & Cheng, 2018; Roh et al., 2013). Asking only the buyer, for example, to report on the level of social capital (relational, cognitive, and structural) in the relationship with a supplier may not be appropriate as its perception may not match that of the supplier. This mismatch of buyer-supplier views on social capital may lead to opposing implications in the relationship (Villena & Craighead, 2017). As such, future research should seek to adopt dyadicand/or multiple-perspective approaches to examine social capital in BSRs and to therefore enrich our understanding of how and why one partner's perception of social capital might be different from or similar to its partner's as a matter of course, not simply to address methodological issues and bias concerns (i.e. common method bias and single informant bias).

4.1.5. Social capital dimension(s) focus in the prior research

Social capital, as previously mentioned, can be regarded as a threedimensional concept comprising relational, cognitive, and structural capital. Although some of the studies reviewed treated social capital as a unitary construct, the majority of the studies conceptualised it as a multi-dimensional construct apparently to provide more insight regarding the complexity of its effects and the relative importance of each dimension in BSRs. Of the 70 articles reviewed, 64 (91.4%) examined social capital in term of two or more different dimensions. Fig. 2 illustrates the cumulative frequency of the three different social

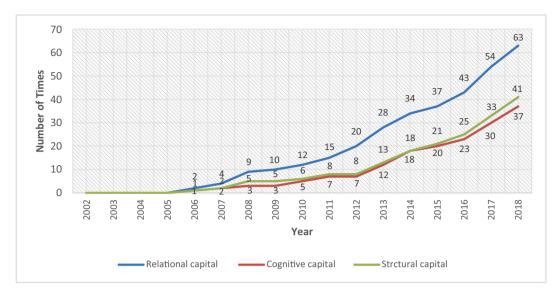


Fig. 2. Cumulative frequency of social capital research by dimension.

capital dimensions studied in the current research.

It was evident that relational capital had received the majority of the research attention (63 studies) (98.4%). This was followed by structural capital, included within 41 (64%) studies, and then cognitive capital included within 37 (57.8%) studies. The relative under-representation of research on the cognitive dimension could be attributed to its more recent emergence following the re-conceptualisation effort of social capital in the seminal work of Nahapiet and Ghoshal (1998) which resulted in the three-dimensional typology. Another possible explanation for this relative under-representation is that cognitive capital has been perceived to have less of an influential impact on BRSs compared to relational and structural capital as is demonstrated in the majority of the current research.

To provide further insight on social capital dimension(s) focus, the reviewed studies were broken down according to whether they examined a single, a two, or a three-dimensional model of social capital. Twenty-two (34.3%) incorporating a single social capital dimension (relational or cognitive or structural) were identified with nearly all focused on relational capital. Six (9.3%) studies incorporating a two-dimensional model of social capital (relational and cognitive, or relational and structural, or cognitive and structural) were identified with the majority examining relational and structural capital together. Finally, 35 studies (54.6%) examined the three-dimensional model of social capital, the majority of which were published in the more recent years, suggesting a trend towards greater acceptance of, and integrating the three dimensions into, a holistic model facilitating the examination of the relative and unique importance of each dimension in BSRs.

4.2. Social capital: antecedents, benefits, risks, and boundary conditions in BSRs

This review was framed around the antecedents, benefits, risks, and boundary conditions of social capital in BSRs. In general, it was observed that most of the papers set out to explore the benefits of social capital to BSRs, while less effort had been devoted to exploring the antecedents, risks, and boundary conditions. A classification of the 70 articles included in this review according to the four aspects is provided in the Appendix.

4.2.1. The antecedents of social capital in BSRs

We identified that social capital in BSRs is developed by intrafirmlevel antecedents and relationship-level antecedents. Intrafirm-level antecedents refers to those antecedents that exist within the internal environment of either the buyer or the supplier, while relationship-level antecedents refers to those antecedents that manifest in the relationship between buyer and supplier. It was evident that no intentional or organized investment, resources, or activities that give rise to a stock of social capital had been explored in the BSR literature. This supports the notion that social capital is often a by-product of other activities in the relationship rather than a core product sought from a deliberately designed process (Nahapiet & Ghoshal, 1998). It is also worth noting that the current research also suggests that social capital dimensions can be antecedents to each other. In particular, a common agreement seems to have developed that structural capital facilities the development of both relational and cognitive capital, while cognitive capital also fosters relational capital (e.g., Carey et al., 2011; Horn, Scheffler, & Schiele, 2014; Li, Ye, & Sheu, 2014; Lioliou & Zimmermann, 2015; Preston, Chen, Swink, & Meade, 2017; Roden & Lawson, 2014; Sukoco, Hardi, & Qomariyah, 2018).

4.2.1.1. Intrafirm-level antecedents. The process of developing social capital in a buyer-supplier dyad appears to commence by creating the necessary preconditions in the internal environment of the partners. Yu and Huo (2018) revealed that building internal relational capital among different organizational functions can facilitate the establishment of relational capital with suppliers, which in turn improves suppliers quality integration. Horn et al. (2014) provided more explanation of this link by demonstrating that internal relational capital facilitates internal integration (cross-functional collaboration), which in turn promotes the development of cognitive and structural capital with suppliers. Both cognitive and structural capital lead to the development of relational capital, which enhances external integration (supplier integration). Bernardes's (2010) results suggest that the presence of a strategic supply chain function contributes to the development of relational and cognitive capital, in turn leading to an increase customer responsiveness. In another study, Shou, Hu, and Xu (2018) explained how high quality and skilled human capital contributes to the development of relational capital that can increase supplier intelligence integration.

4.2.1.2. Relationship-level antecedents. The relationship-level antecedents of social capital in BSRs reflect a wide range of aspects of BSRs, but can be grouped into two main types, namely structural antecedents and relational antecedents. Structural antecedents reflect those aspects relating to relationship structure and interactions, whilst relational antecedents represent those relating to the relational content, behaviours, and characteristics manifested in BSRs.

A variety of structural antecedents have their effects been assessed on the development of social capital. However, almost all the existing research has focused on the role of the structural antecedents on building relational capital. Relational capital was reported to flourish in BSRs where suppliers are geographically located (relatively) close to buyers (Lawson et al., 2008). Supplier integration is highlighted to play a significant role in developing relational capital in the relationship (Lawson et al., 2008; Petersen, Handfield, Lawson, & Cousins, 2008). In their study, Grawe et al. (2012) revealed that organizational implantation (an on-site representative of the other party) increases customers' commitment towards logistics service providers through leveraging relational capital and increased responsiveness. Taking the supplier's perspective, Blonska, Storey, Rozemeijer, Wetzels, and de Ruyter (2013) also indicated that two types of supplier development (i.e. capability development and assessment) contribute to buyer-supplier relationships by building relational capital, which in turn, increases both buyer and supplier benefits. Similarly, Lee (2015) found that monitoring suppliers (i.e. evaluation, audit, and certification) and collaborating with suppliers (i.e. information sharing and joint development) - as green supply chain management practices - leveraged relational capital and structural capital in the buyer-supplier relationship. Likewise, Cousins et al. (2006) revealed from their data of 111 buyers in the UK that informal socialisation, but not formal socialisation, led to the development of relational capital, which in turn led to improved supplier relationship outcomes.

The study of relational antecedents of social capital in BSRs was found to be extremely limited in the current literature. However, the existing research has examined the impact of this type of antecedents on leveraging only the relational and structural capital dimensions. Milosevic (2016) examined the impact of buyers' reliance (i.e. ability to fulfil contractual obligations) and relational bonding norms on the development of relational capital and how formal and informal institutional distance moderates these relationships. The results suggest that both reliance and relational bonding norms positively enhance relational capital. However, as formal institutional distance decreases, buyers' reliance has more impact on the development of relational capital. On the other hand, as informal institutional distance decreases, relational bonding norms have more effect on the development of relational capital. More recently, Kim, Lee, and Lee (2017) revealed that fairness in the relationship and referent power of buyers (e.g., respect, and role model behaviour) increased the development of relational and structural capital. Conversely, buyers' coercive power that is often associated with or signals potential penalties, was negatively related to structural capital.

4.2.2. Benefits of social capital in BSRs

The existing literature reveals that social capital dimensions can lead to a variety of desirable benefits in BSRs. These benefits of social capital can be attained from its direct outcomes and mediating and moderating effects. We were able to identify and distinguish between two broad types of benefits of social capital embedded in BSRs: performance benefits and relationship benefits. It is noteworthy that some of the benefits have a reciprocal relationship with social capital. In other words, these benefits can also operate as antecedents to social capital.

4.2.2.1. Performance benefits. The selected literature has revealed positive impacts of social capital dimensions on the strategic, financial, operational, innovation, and environmental performance of both buyer and supplier. However, the literature shows inconsistent results regarding the impact of specific social capital dimension(s) on specific types of performance. For example, Carey et al. (2011) found that only relational capital directly improves buyers' cost and innovation performance. However, Krause et al. (2007) found that all three dimensions of social capital had a positive impact on buyer's operational performance outcomes, albeit to differing degrees. Specifically, while relational capital was more important in achieving cost savings, cognitive and structural capital were more vital in achieving improvements in

quality, delivery, and flexibility. Supporting the importance of all three dimensions of social capital, Villena et al. (2011) and Son et al. (2016) revealed that the development of all three was positively related to both strategic and operational performance. However, Gelderman et al. (2016) examined the impact of the all three dimensions of social capital and revealed, surprisingly, that only cognitive capital improved strategic performance. Examining the suppliers' perspective, Kohtamäki, Partanen, and Möller (2013) uncovered that relational capital directly leads to an increase in supplier's profit and indirectly through increasing the effectiveness (i.e. facilitating resource and information exchange) of supplier's R&D services. In another study from suppliers' perspective, Lee (2015) found both relational and structural capital increase suppliers' environmental and operational performance.

4.2.2.2. Relationship benefits. The development of social capital can be seen to contribute to BSRs by enhancing a variety of benefits at the relationship level. The reviewed research effort has demonstrated the impact of social capital dimensions on outcomes other than performance, or on variables that serve as antecedents to performance.

A number of scholars have examined how social capital dimensions affect partners' exchange of knowledge and information, however different social capital dimensions have been found to play different roles on different forms of knowledge and information sharing. In their examination of 82 buyers in electronic manufacturing services, Kim et al. (2012) found that social capital facilitates knowledge exchange between buyer and supplier. Similarly, Hung et al. (2014) found that, among the three dimensions of social capital, cognitive capital facilitates both knowledge inflow and outflow, while structural capital facilitates only knowledge inflow or outflow. In another study, Li et al. (2014) found that only relational and cognitive capital directly improves information sharing in terms of content and quality, while structural capital facilitates information sharing indirectly through developing relational and cognitive capital.

The impact of social capital on knowledge in BSRs goes beyond mere exchange to facilitate its acquisition and utilisation. For instance, Zhang, Guo, and Zhao (2017) found that social capital fosters knowledge acquisition (i.e. the ability to identify and obtain knowledge that is crucial to one partner's operations from its partner) and knowledge combination (i.e. the ability to synthesise current and previously acquired knowledge). Wang and Li (2017) provided more insight by explicating which social capital dimensions lead to the development of which type of absorptive capacity. They revealed that relational capital is positively related to both the development of potential absorptive capacity (PAC) (knowledge acquisition and assimilation) and realised absorptive capacity (RAC) (knowledge transformation and exploitation), whilst structural capital is only positively related to the development of supplier PAC. Surprisingly, Wang and Li (2017) found that cognitive capital had no impact on enhancing either of these capabilities, which contradicts Unal and Donthu's (2014) study which reported that outsourcing partners' cognitive capital led to the development of absorptive capabilities and subsequently partnership performance.

The development of social capital has been found to foster learning in BSRs. Chang and Gotcher (2007) reported, based on 118 suppliers' perspectives, that relational capital enhances BSR learning leading to enhancement of their joint capability. Kohtamäki and Bourlakis's (2012) investigation of 195 customer-supplier relationships revealed that social capital facilitates relationship learning. Similarly, Huikkola et al. (2013) suggested that relational capital enables joint learning by enhancing knowledge sharing and effective collaboration, opening twoway dialogue, developing joint sense-making and creating commitment to knowledge implementation and integration in buyer-supplier collaboration R&D efforts. Li's (2010) study provided a more comprehsive perspective by linking different social capital dimensions to a variety of learning capabilities. Li (2010) demonstrated that relational

capital and cognitive capital enhanced both exploitative and exploratory learning, whilst structural capital had a positive effect only on exploratory learning.

Social capital dimensions have also been found to contribute to BSRs by generating other relationship outcomes including facilitating integration (Horn et al., 2014; Shou et al., 2018; Yim & Leem, 2013; Yu & Huo, 2018), increasing supply chain resilience (Johnson et al., 2013), risk identification (Fan & Stevenson, 2018), responsiveness (Grawe et al., 2012), customer knowledge development (Tsai et al., 2013), commitment to innovation (Tsai et al., 2013), innovation capability (Kulangara et al., 2016), and technological capability (Tseng & Chen, 2014), and by reducing opportunism (Hartmann & Herb, 2014; Lioliou & Zimmermann, 2015; Wang et al., 2013).

4.2.3. Risks of social capital in BSRs

The current literature has predominately focused on the presumed positive consequences of social capital. A growing but limited research has investigated risks or negative consequences of social capital, suggesting a double-edged sword effect. It can be observed that this research dealt with three important and insightful aspects to understand the risks of social capital, including the nature of the risks, when and why do they emerge.

The current literature has identified a number of downsides associated with the presence of an excessive level of social capital in BSRs. For example, Chou, Chen, and Pan (2006) revealed that although the social capital that buyers have with existing suppliers can facilitate information technology (IT) outsourcing and collaboration, it can undermines the rationality and objectivity of outsourcing decisions by reducing the likelihood of considering better alternative IT suppliers. Similarly, long-term social capital built with current suppliers also leads buyers to exclude other suppliers and restrict the flow of information between buyers and suppliers (Erridge & Greer, 2002). Social capital can also inhibit knowledge exchange and reduce exploratory learning in BSRs (Handoko, Bresnen, & Nugroho, 2018; Wang, Terziovski, Jiang, & Li, 2017).

Social capital turns into harmful resource negatively affecting BSRs when it overly accumulates in the relationship. A number of the studies have suggested that too much social capital is as bad as too little, and thus contend that a moderate level of social capital can yield its best performance enhancement contribution in BSRs. For instance, Yang (2009) observed that alliance performance in BSRs increases as relational capital increases, however, performance starts to deteriorate as relational capital reaches excessive levels in the relationship. Similarly, Villena et al. (2011) warned of the 'dark side' of social capital when they found an inverted curvilinear relationship between relational capital and both operational and strategic performance, and between structural capital and operational performance. Son et al. (2016) supported this notion, revealing that whilst the accumulation of social capital dimensions increases strategic and operational performance to a certain level, performance can then decline with an over accumulation in the relationship. More recently, Cho, Bonn, Giunipero, and Jaggi (2017) also found that whilst social capital drives new product development (NPD) between buyer and supplier to a certain level, further increase of social capital beyond this level has the effect of reducing it.

The idea that a 'high' level of social capital can be detrimental to BSRs can be explained by the fact that when buyer and supplier interact much more frequently and/or overly trust each other, the likelihood of opportunism can increase (Villena et al., 2011). Additionally, as social capital increases, relationship learning and the flow of information and new innovative ideas can decrease (Cho et al., 2017; Chou et al., 2006) due to "groupthinking" (Qian, Yang, & Xue, 2018).

4.2.4. The boundary conditions of social capital in BSRs

The previous section highlighted that social capital can lead to a variety of outcomes in BSRs. However, an emerging research stream within the body of literature reviewed has emphasized that the effects of

social capital might not be universally applicable. The research has suggested that the effects of social capital hold or vary under certain conditions and circumstances.

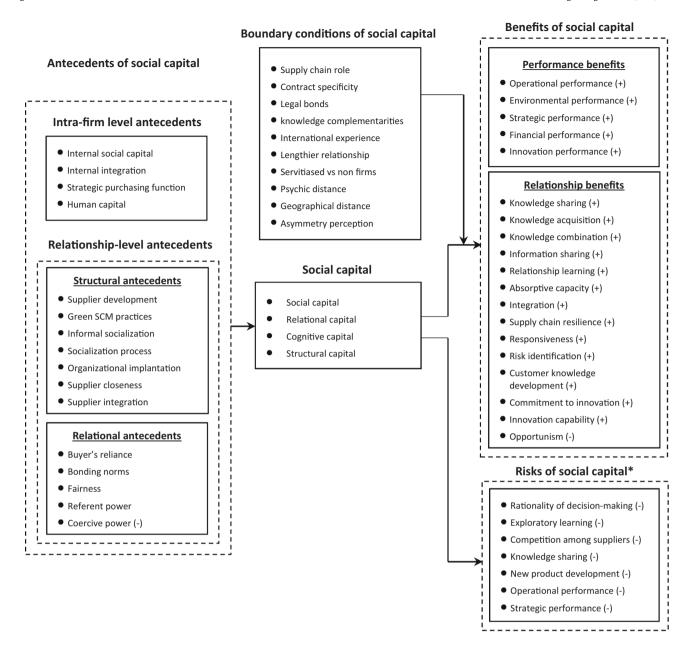
The impact of social capital on relationship outcomes appears to vary according to firm type and role (position) in the supply chain. For example, in servitized firms, social capital has been found to both directly, and indirectly through knowledge combination, enhance operational performance, however in traditional manufacturing firms it only improves operational performance indirectly through facilitating knowledge acquisition (Zhang et al., 2017). Leem and Rogers (2017) reported that for the supplier and distributor, only relational and cognitive capital positively influenced performance, whilst for the manufacturer and logistics, provider all the three dimensions of social capital improved performance.

The type and structure of governance in BSRs also alter the outcomes of social capital. For instance, when legal bonds (formal governance) are used to govern the relationship, relational capital leads to higher buyer cost and innovation improvements (Carey et al., 2011). Likewise, Wang et al. (2017) revealed that relational and structural capital positively affect exploitative learning but negatively affect exploratory learning. However, under higher levels of contract specificity in the relationship, the positive impact of relational and structural capital on exploitative learning is stronger and its negative impact on exploratory learning is stronger.

Social capital has frequently been reported to play a vital role in facilitating and increasing knowledge exchange in BSRs. However, this crucial role has been observed to reduce or be absent depending on whether partners possess knowledge complementarities and on the length of their relationship. Kim et al. (2012) reported that with high knowledge complementarities between partners, social capital negatively affects knowledge exchange, whereas with low knowledge complementarities, social capital has no influence on knowledge exchange. Similarly, relational capital has been found to increase the transfer of knowledge from the buyer to the supplier in young relationships and in turn lead to greater supplier cost efficiency and innovation, however this influence decreases in lengthier BSRs (Preston et al., 2017).

The outcomes of social capital also differ based on the distance and the degree of symmetry between buyer and supplier and their international experience. Social capital dimensions have been found to be positively related to a supplier's foreign economic performance (Presutti et al., 2016), however the positive impact of relational and cognitive capital is stronger with low levels of psychic distance, while the positive impact of all three social capital dimensions is evidenced only for high geographical distance between the partners. Tseng and Chen (2014) found that relational capital increases a buyer's technological capability as its international experience increases. A recent interesting insight reported by Villena and Craighead (2017) suggests that relational capital reduces opportunism only when both buyer and supplier share the same levels of relational capital. Villena and Craighead (2017) added that buyers observe reduced benefits and suppliers perceive slightly improved benefits when it is the suppliers that have higher levels of relational capital.

A wide range of antecedents, benefits, risks, and boundary conditions were identified in the existing research on social capital in BSRs. The findings have been developed into an integrative framework of social capital in BSRs which is presented in Fig. 3. The framework illustrates that structural and relational antecedents in BSRs can create social capital. This is consistent with the two dominant perspectives of the sources of social capital in social relations as was discussed in Section 2. The structural antecedents represent interactions and closeness between buyer and supplier, while the relational antecedents reflect the content (nature) of BSRs, such as norms. The framework also illustrates that social capital can generate benefits (performance and relationship benefits) to BSRs, but can also lead to negative consequences, suggesting a 'double-edged sword' effect of social capital in the BSR context. The framework also underscores that the benefits of social capital in BSRs are



Note: (+) detonates positive relationship; and (-) indicates negative relationship

Fig. 3. An integrative framework of social capital in BSRs.

not universally applicable. In other words, the impact of social capital on relationship outcomes varies depending on certain conditions and contexts.

5. Future research directions

In addition to identifying and organizing the antecedents, benefits, risks, and boundary conditions of social capital in BSRs, this review aims to provide a foundation for future inquiry by identifying current gaps in the extant literature and suggesting important research directions to stimulate further theoretical and empirical work which can advance both the theoretical basis and the practice of BSRs.

5.1. Future research related to the antecedents of social capital

The antecedents of social capital have received limited attention compared to its outcomes in the extant literature. Although social capital is widely believed to flourish as the "distance" between actors decreases (Nahapiet & Ghoshal, 1998), examining if this holds true and is applicable, and to what extent, in BSRs, has received scant attention. "Distance" in BSRs comprises three aspects: geographical distance, cultural distance, and organizational distance (Awaysheh & Klassen, 2010). Geographical distance refers to the physical spatial separation between buyer and supplier; cultural distance refers to the extent to which buyer and supplier operate in regions, countries or other contexts with similar customs and values; and organizational distance is said to decrease as the number of tiers between buyers and suppliers reduces (Awaysheh &

 $[\]boldsymbol{^*}$ Risks are more evident when social capital is at higher levels in the relationship

Klassen, 2010). When all types of distance decrease, it is expected that buyer and supplier will face fewer obstacles to frequent interaction, leading to greater potential for the development of social capital. However, the extent to which these different types of distance affect the development of social capital individually, or in different combinations, is not yet known.

An observation that has emerged from our review is that the structural antecedents of social capital have received more attention to date compared to the relational antecedents, yet it has been argued that the quality of relations between actors is likely to have a profound effect on the development of social capital. An important research avenue therefore is to explore how the important relational aspect of perceived justice in BSRs can create the necessary conditions for the development of social capital. Justice is increasingly regarded as a foundation on which BSRs are established, continue, and evolve (Alghababsheh, Gallear, & Rahman, 2018). Although Kim et al.'s (2017) more recent study has examined the impact of fairness on the development of relational and structural capital, the study did not differentiate among the different dimensions of inter-organizational justice (i.e. distributive, procedural, and interactional) and thus did not disentangle the unique role of each of the inter-organizational justice dimensions on leveraging social capital. The different inter-organizational justice dimensions may have differing impacts on leveraging the different social capital dimensions as each justice dimension is associated with different aspects (economic, structural, and social) of the BSR (Luo, Liu, Yang, Maksimov, & Hou, 2015). Greater insights can be gained by exploring which justice dimension can lead to the development of which social capital dimension: we might expect to find for example, that interactional justice has a strong effect on leveraging all types of social capital, whilst distributive and procedural justice has a more restricted effect, creating and maintaining specific dimensions only.

5.2. Future research related to the benefits of social capital

In examining the impact of social capital dimensions on various BSR outcomes, growing research has attempted to extend our understanding by examining the impact of the interaction effect among these dimensions on outcomes (e.g., Qian et al., 2018). Two views are evidently emerging on the impact of the interaction effects, namely the complementary and substitutive view. According to the complementary view, a greater level of outcome can be realised from one dimension of social capital when another dimension is also present, compared to the level attainable if the other was not present. On the other hand, the substitutive view argues that the same level of outcome can be achieved from each social capital dimension regardless of the level of the others. Although the former view proposes that higher levels of outcome can be realised under different social capital dimension interaction conditions, research to date on the complementary view has not yet established which specific dimension(s) buyers and/or suppliers should seek to leverage in the relationship to realise the maximise outcome. This is problematic because this lack of knowledge may lead managers to direct their attention and investment towards dimension(s) that only generate very slight outcome improvements. We propose that this needs to be investigated, and moreover that in doing so it would be useful to also examine the salience of the constraining factor model (CFM) (see Narasimhan, Narayanan, & Srinivasan, 2013; Siemsen, Roth, & Balasubramanian, 2008). According to the CFM, the buyer and supplier can realise a greater outcome level by leveraging the social capital dimension which presently has the lowest level in the relationship, rather than leveraging any, or all of the dimensions (Narasimhan et al., 2013). In other words, when the level of one of the dimensions is low relative to the others, improving the other two dimensions will not achieve further significant performance improvement (Narasimhan et al., 2013).

It was evident from our review (see Fig. 2) that the relational dimension of social capital has received almost twice as much attention over the review period as the cognitive or structural capital dimensions.

This imbalance in focus indicates that a significant number of studies have not considered the three dimensions simultaneously, and thus have failed to sufficiently disentangle the unique role and distinct importance of each dimension compared to the others in BSRs. Future research should therefore seek to employ more nuanced investigations by comprehensively including all three individual dimensions in their investigations to provide greater insight into the relative importance of each dimension in BSRs. Moreover, our understanding can be deepened further by investigating the relative importance or impact of the three different social capital dimensions on different aspects of each specific outcome area in BSRs. This can advance current theory by identifying if a specific dimension of social capital has a stronger effect on one aspect of the outcome variable, while another dimension has a stronger effect on a different aspect of the same outcome variable. For instance, it would be useful to know if one of the social capital dimensions has a stronger facilitating role on the implementation of assessment-based sustainable supply chain management (SCM) practices compared to the level it has on collaboration-based sustainable SCM practices.

5.3. Future research related to the risks of social capital

The review revealed that social capital can have both favourable and. under certain circumstances, unfavourable effects (or consequences) in BSRs. While our understanding of the positive implications of social capital is advancing relatively rapidly, our understanding of its negative implications is much more underdeveloped. The greater attention towards the positive consequences of social capital is understandable and moreover is likely to have been influenced by the prevalence of somewhat 'one-sided' definitions of social capital which presume and recognise it as a resource with only positive outcomes without acknowledging its potential for negative outcomes (Adler & Kwon, 2002). However, while the majority of previous research efforts on the negative consequences of social capital have been dedicated to understanding the nature of these negative consequences, our understanding of why and how social capital might generate such negative consequences is extremely limited. Further research is therefore needed to look deeply into why and how social capital might adversely affect key aspects of BSR development, for example innovation or absorptive capacity, by exploring the underlying mechanisms and conditions (possible mediating variables) through which social capital translate into potential negative consequences. This is highly important and theoretically insightful because understanding the mechanisms through which social capital negatively affects BSR outcomes can provide the ground for a better identification and understanding of the mechanisms (possible moderating variables) through which the negative impacts can be prevented or mitigated.

The review has already highlighted that negative effects of social capital can emerge when social capital in BSRs reaches excessive levels. Future research is therefore recommended to explore how the development of social capital can be better managed to stop it from reaching the excessive levels that precipitate negative effects. However, it is important to note that this analysis must include a comprehensive understanding of what constitutes an excessive level of social capital in different contextual circumstances. We would contend that whether a certain level of social capital is excessive may, in particular, depend on cultural factors, for example the prevalence of collectivism over individualism or vice versa. A high level of social capital for one culture might be seen as moderate or even low in another, and consequently the same level of social capital might lead to positive consequences in one culture but to negative consequences in another. As such, this line of enquiry seems particularly pertinent in the context of cross-border BSRs.

5.4. Future research regarding the boundary conditions of social capital

The review established that to date the examination of moderators in the extant literature has generally been very limited. Two types of moderators have been studied, namely the moderators of social capital antecedents, and the moderators of social capital outcomes. While the former can increase our understanding of the circumstances under which antecedents can (or cannot) augment the development of social capital, the latter provide insights regarding the conditions under which social capital outcomes can (or cannot) be realised or maximized. However, the former has received much less attention. Only two studies appear to have been undertaken, those of Roden and Lawson (2014) and Carey and Lawson (2011). Therefore, future research should be directed towards exploring more moderators of social capital antecedents to develop a more complete understanding of the conditions under which social capital develops and evolves in BSRs, for example how power (i.e., the ability of one party to influence another) in BSRs would moderate the relationship between antecedents and social capital development. In this vein, we would suggest that French and Raven's (1959) classification of five different types of power (expert, referent, coercive, legitimate, and reward) could be used as it explicates the perceived different reasons (or sources) why one party may influence or control another (Benton & Maloni, 2005; Maloni & Benton, 2000). As such, adopting this nuanced view of power will help in determining whether specific types of power would support (or undermine) the development of the different forms of social capital (i.e., relational, cognitive, and structural). For instance, the use of coercive power by buyer whereby administrating punishment to supplier may erode the leverage of relational capital in the relationship. On the other hand, buyer's legitimate power (i.e., when one party believes that its partner has naturel right to influence it) as perceived by supplier may lessen the negative impact of some actions by buyer on the development of social capital. The effect of these type of powers could be further scrutinised by differentiating between mediated (expert and referent) and non-mediated (coercive, legitimate, and reward) power. In general we expect that mediated power, which represents the competitive and negative uses of power (Benton & Maloni, 2005), would hinder the development of social capital, while nonmediated power, which are more relational and positive in orientation, would create the necessary condition to promote the rise of social capital.

Whilst previous research has highlighted the importance of a contingency approach (two-way interaction), accepting the premise that social capital outcomes are context-specific, to studying the link between social capital and outcomes over the dominant universal (maineffects-only) approach, greater insights into social capital-outcomes link could be gained through exploring how different characteristics or attributes of BSRs simultaneously effect this link. This can be accomplished by adopting a configurational approach (three-way interaction), which would involve the simultaneous and joint consideration of the different BSR characteristics and attributes, for example power structure and relationship length. Thus, the configuration approach, which helps to more accurately reflect the complexity of BSRs, can advance the current knowledge by not only providing a deeper understanding of which BSR configurations underpin social capital's positive effect, but also by identifying which social capital dimensions are more salient than others under different configurations of BSR characteristics.

6. Conclusions

6.1. Theoretical contribution

This paper set out to explore the antecedents, benefits, risks, and boundary conditions of social capital in BSRs via a systematic survey of the current literature. In total, 70 papers published in peer-review journals between 2002 and 2018 were identified and have been analysed both descriptively and thematically. In the descriptive analysis, the articles were analysed according to publication trend over time, the methodological approach, research perspective, and social capital dimension(s) examined. In the thematic analysis, the current literature was analysed to explore the antecedents, benefits, risks, and boundary

conditions. This study contributes to BSRs literature in two important ways. Its first contribution is the identification and categorization of antecedents, benefits, risks, and boundary conditions of social capital in BSRs into an integrative framework (Fig. 3), which has advanced our understanding of the current state of the social capital research in the context of BSR, and can also serve as a frame of reference to stimulate and guide further scholarship. Based on the review, a wide range of antecedents that give rise to social capital in BSRs have been identified and organized into two main types, including intrafirm-level and relationship-level antecedents (i.e., structural and relational). This has not only increased our understanding of the antecedents from an integrative perspective, but also enabled the differentiation of the antecedents from the outcomes of social capital. Our paper also identified and differentiated between performance and relationship benefits that can be attained for buyer and supplier. This review also highlighted the potential risks of social capital in BSRs by consolidating the fragmented and limited literature on the "dark side" of social capital. This has deepened our understanding of the nature of these risks and when and why do they emerge. Our review also identified a number of boundary conditions (moderators) of social capital outcomes related to different aspects of BSRs. This has enhanced the clarity of the social capitaloutcomes link by revealing that certain benefits of social capital are

The second main contribution of this study is the identification of current research gaps and extrapolating important future research directions. In the previous section, we set out multiple avenues for further research covering various aspects of social capital in BSRs which will provide much needed and timely enrichment of the knowledge of BSRs. We urged scholars to adopt a dyadic perspective when examining social capital in BSRs to address potential biases that may result when only buyer or supplier reporting on the level of social capital in the relationship is present, and in order to better understand why either discrepancies or consensus might exist between buyers' and supplier's perceptions. We also recommended future work focus on understanding the development process of social capital in BSRs by understanding vital structural (e.g., distance between buyer and supplier) and relational (e. g., justice) antecedents as conduits to foster social capital. In addition, we advocated researchers to explore the interaction relationship among social capital dimensions using the CFM, which addresses the limitation of the conventional complementary and substitutive views of the inability to determine the specific dimension that should be improved to achieve the maximum outcome. Moreover, we encouraged more work to explore the risks of social capital, to understand the underlying mechanisms through which social capital might harm BSRs, and to investigate how any harmful impact might be minimised or eliminated through moderating variables. Furthermore, we called for more future research to adopt a contingency approach when investigating the outcomes of social capital in BSRs and to adopt a configuration approach in which more aspects of BSRs can simultaneously be accounted for.

6.2. Limitations

This review has a number of limitations which should be acknowledged. We considered only articles published in the CABS journals list to help ensure a rigorous and quality initial synthesis of the current research on social capital in BSRs. Future studies may wish to include articles published in other journals, conference papers, and books. Moreover, this review focused only on those studies that examined the core constructs of social capital, omitting those studies that applied social capital theory as an explanatory framework without examining its construct and different dimensions. Accordingly, a further interesting avenue for future research would be to evaluate the application and extension of social capital theory as an emerging theoretical lens in the BSR research and moreover, in the broader supply chain management literature. Furthermore, we reviewed social capital only in BSRs which represents only one type of inter-organizational relationships. This

narrow scope and focus enabled us to provide an in-depth analysis (Webster & Watson, 2002) and detailed discussion of the antecedents, benefits, risks, and boundary conditions of social capital. Extending the reach of our review within the inter-organizational relationship domain by replicating our study and analysing social capital in other types of inter-organizational relationships such as strategic alliances and joint ventures would be highly beneficial. Finally, although we have complemented our systematic search with snowballing search technique

(backward and forward) to ensure that no relevant papers were omitted in our review, some papers may have been left out.

Declaration of Competing Interest

None.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Appendix A. A summary of the selected papers

No	No Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	-
1	Erridge and Greer (2002) ^a				Benefits Risks	Buyer-supplier	Buyer	Case study	NS	UK	Social capital increases access to resource and information, reduce transaction costs, improve contract specifications, facilitating shared risks, and improving co-operative action. However, it can reduce competition, restrict the flow of information, and increase opportunism.
2	Chou et al. (2006)	✓	✓	✓	BenefitsRisks	Buyer-provider	Buyer	Case study	Information technology	Taiwan	Although pre-social capital facilities IT outsourcing and collaboration, it can undermine the rationality of outsourcing decision by reducing the likelihood of considering better alternative providers.
3	Cousins et al. (2006)	✓			AntecedentsBenefits	Buyer-supplier	111 buyers	Survey	Multiple Industries	UK	Informal socialisation leads to the development of RC, which in turn, improves supplier relationship outcomes. Formal socialisations facilities informal socialisation that leads to the development of RC.
4	Chang and Gotcher (2007)	•			• Benefits	Buyer-supplier	118 suppliers	Survey	Multiple industries	Taiwan	RC enhances supply chain relationship learning. RC positively moderates the relationship between relationship- specific investment and relationship
5	Krause et al. (2007)	✓	✓	✓	• Benefits	Buyer-supplier	392 buyers	Survey	Multiple industries	US	learning. CC is positively associated with both buyer's cost performance and operational performance. RC is important in achieving costs (continued on next page)

No	No Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	-
											saving. SC is positively associated with only operational performance.
6	Autry and Griffis (2008)	✓		•	• Benefits	Supply chain	N/A	Conceptual	N/A	N/A	RC and SC lead to the development of knowledge, which in turn, increase execution and innovation -oriented
7	Lawson et al. (2008)	✓		✓	AntecedentsBenefits	Buyer-supplier	111 buyers	Survey	Multiple industries	UK	performance. Supplier integration and supplier closeness creates RC, which in turn, leads to performance improvements. Moreover, SC is positively associated with performance improvements.
8	Min, Kim, and Chen (2008)	✓	*	*	AntecedentsBenefits	Supply chain	N/A	Conceptual	N/A	N/A	Supply chain identity salience (firm's sense of belonging to a particular supply chain) is positively related to all social capital dimensions, which in turn facilitate information sharing, collaboration, and resource exchange.
9	Petersen et al. (2008)	1			• Antecedents	Buyer-supplier	111 buyers	Survey	Multiple industries	UK	Socialisation process and supplier integration lead to the development of RC.
10	Yang, Wang, Wong, and Lai (2008)	1			• Benefits	Buyer-supplier	105 buyers	Survey	Multiple industries	US	Surprisingly, RC not related to relational stability.
11	Yang (2009)	•			Benefits Risks	Buyer-supplier	173 buyers	Survey	Multiple industries	China	The results indicate a curvilinear relationship between RC and alliance performance, suggesting that a moderate level of RC achieves the highest alliance performance.
12	Bernardes (2010)	✓	✓		AntecedentsBenefits	Buyer-supplier	204 buyers	Survey	Multiple industries	US	Strategic supply chain function contributes to the development of RC and CC, which leads to increase customer responsiveness. RC leads to increase customers responsiveness indirectly though creates CC.
13	Li (2010)	✓	✓	✓	• Benefits	Supplier-agent	411 suppliers	Survey	Electronic industry	China	RC and CC facilitate both exploitative and exploratory learning, while SC enhances only exploratory learning. Both types of learning mediate the relationship (continued on next page)

No	No Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	-
14	Carey et al. (2011)	*	,	1	Benefits Boundary conditions	Buyer-supplier	163 buyers	Survey	Multiple industries	UK	between social capital and relationship value. CC and SC are positively related to the development of RC, which in turn, leads to cost and innovation improvements. Legal
15	Carey and Lawson (2011) ^a				AntecedentsBoundary conditions	Buyer-supplier	N/A	Conceptual	N/A	N/A	bonds (as formal governance) increase the impact of RC on both buyer innovation and cost improvements. Relational and contractual governance positively related to the development of social capital. However, the effect of contractual governance is stronger under higher
16	Hammervoll (2011)	1			AntecedentsBenefits	Supply chain relationships	N/A	Conceptual	N/A	N/A	level of demand uncertainty, while the effect of relational governance is stronger under higher level of supply uncertainty. Socialisation processes lead to the development of RC, which in turn, lead to longer honeymoon
17	Villena et al.	✓	✓	J	 Benefits 	Buyer-supplier	132 buyers		Multiple	Spain	period (the time period immediately after SCR formation, during which the threat of dissolution is non-existent). Social capital
17	(2011)	•	V	•	• Risks	Б иует-ѕиррпет	132 buyers	Survey	industries	Зра ш	dimensions are positively related to performance. A curvilinear relationship was significant between RC and both operational and strategic performance, while SC was only significant for operational
18	Chang, Cheng, and Wu (2012)	1			• Benefits	Buyer-supplier	104 buyers	Survey	Multiple industries	Taiwan	performance. Social capital (trust and commitment) facilitates innovation and adaptation, which in turn, leads to improve
19	Grawe et al. (2012)	1			• Antecedents • Benefits	Logistics provider- customer	81 dyads	Survey	Multiple industries	NS	performance. Organizational implantation (on-site representative) enhances customers' commitment towards (continued on next page)

No	No Author(s)	Dim	ensions	3	Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	•
20	Kim et al. (2012)	1			Benefits Boundary conditions	Buyer-supplier	82 buyers	Survey	Electronic Manufacturing Services	NS	logistics service provider through leveraging RC, which in turn, increases responsiveness. Social capital (trust) facilities knowledge exchange. However, with high knowledge complementarities between partners, social capital negatively affects knowledge exchange,
21	Kohtamäki, Vesalainen, Henneberg, Naudé, and Ventresca (2012)	✓			• Benefits	Supplier–customer	248 suppliers	Survey	Multiple industries	Finland	whilst with low knowledge complementarities, social capital has no influence on knowledge exchange. RC and relationship-specific investment are positively associated with relationship performance. RC positively moderates the relationship between relationship
22	Kohtamäki and Bourlakis (2012)	1			• Benefits	Customer-supplier	195 customers	Survey	Metal and electronics industries	Finland	structures and relationship performance. The results indicated that social capital (trust) facilities
23	Blonska et al. (2013)	✓			AntecedentsBenefits	Buyer-supplier	185 suppliers	Survey	Multiple industries	Across countries	relationship learning. Supplier governance and capability development lead to build of RC. RC positively moderates the relationship between supplier governance and capability development and
24	Huikkola et al. (2013)	✓			• Benefits	Supplier-customer	Dyadic	Multiple case studies	R&D services	Finland	supplier benefits, while only moderates the relationship between supplier governance and buyer benefits. RC enables joint learning in R&D collaboration by facilitating knowledge sharing and effective collaboration, opening dialogue, and providing agreement between partners and by creating a
25	Johnson et al. (2013)	1	1	1	• Benefits	Buyer-supplier	Multiple supply chain parties	Single Case study	Railway	UK	commitment to knowledge integration. Social capital dimensions facilitate and enable supply (continued on next page)

No	Io Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	
26	Kohtamäki et al. (2013)	,			• Benefits	Customer-supplier	91 suppliers	Survey	Multiple industries	Finland	chain resilience capabilities (flexibility, velocity, visibility, and collaboration). RC is positively associated with supplier's profit performance and positively moderates the relationship between supplier's R&D services and supplier's profit performance.
27	Roh et al. (2013)	✓	•	•	• Benefits	Buyer-supplier	105 dyads	Survey	Multiple industries	NS	All the three dimensions lead to buyer's and supplier's satisfaction. However, under conditions of perceptual agreement, suppliers' perception of CC has a direct effect on buyers' satisfaction, whilst there are direct effects between buyers' SC and RC and suppliers' perception of satisfaction.
28	Tsai et al. (2013)	✓	•	•	• Benefits	Buyer-seller	302 sellers	Survey	Information Technology	Taiwan	Trust increases seller's commitment to innovation. Shared norms are positively related to both commitment to innovation and customer knowledge development. Social interaction facilities customer knowledge development, which in turn increases innovation
29	Wang et al. (2013)	•	*	•	• Benefits	Buyer-supplier	400 buyers	Survey	Multiple industries	China	performance. All social capital dimensions directly reduce partner's opportunism. However, a higher level of RC magnifies the negative impact of behavioural uncertainty on partner's opportunism. SC reduces the impact of relationship-specific investment and behavioural uncertainty on partner's opportunism. CC reduces the impact of behavioural uncertainty on partner's opportunism. CC reduces the impact of behavioural uncertainty on opportunism. (continued on next page.

No	No Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context	<u> </u>	Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	
30	Yim and Leem (2013)	✓	*	•	Benefits	Buyer-supplier	420 buyers	Survey	Multiple industries	South Korea	All social capital dimensions facilitate supply chain integration (information sharing, collaboration and resource exchange), which leads to improve firm performance. RC and CC directly increase firm performance.
31	Hartmann and Herb (2014)	✓	1	•	Benefits	Buyer-supplier	N/A	Conceptual	N/A	N/A	Social capital developed between buyer and partner (supplier) reduces opportunistic behaviour facing buyer from the service provider (the third party) in a service triad.
32	Horn et al. (2014)	✓	1	•	AntecedentsBenefits	Buyer-supplier	82 buyers	Survey	Automotive industry	Germany	Internal integration (cross-functional) is positively related to the development of CC and SC, which in turn they lead to the development of RC. RC positively influences external integration.
33	Hung et al. (2014)	✓	*	✓	Benefits	Buyer-supplier	160 buyers	Survey	Multiple industries	Taiwan	CC facilitates both knowledge inflow and outflow of green supply chain, while SC enables only knowledge inflow, which in turn, leads to improve green management performance. RC has no effect on both knowledge inflow
34	Li et al. (2014)	✓	•	•	• Benefits	Buyer-supplier	272 buyers	Survey	Multiple industries	China	and outflow. Only RC and CC improve the information sharing in term of content and quality, which in turn leads to improves both efficiency and responsiveness performance. SC facilities information sharing indirectly through developing
35	Roden and Lawson (2014)	✓	✓	1	Antecedents Boundary conditions	Buyer-supplier	163 buyers	Survey	Multiple industries	UK	RC and CC. CC and SC positively impact RC. However, CC negatively impact RC and the positive impact of SC is stronger under high level of buyer and supplier adaptations.
36	Tseng and Chen (2014)	1			BenefitsBoundary conditions	Buyer-supplier	84 buyers	Survey	Multiple industries	Across countries	supplier adaptations. RC is positively related to the development of buyer's technological (continued on next page)

No	Vo Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	
37	Unal and Donthu (2014)		*		• Benefits	Buyer-supplier	60 dyads	Survey	Consumer packaged	NS	capability. Moreover, as the buyer's international experience increases, the impact of RC on buyer's technological capability increases. RC is positively related to the
									goods		development of absorptive capabilities, which in turn positively influences performance.
38	Lee (2015)	•		•	AntecedentsBenefits	Buyer-supplier	248 suppliers	Survey	Multiple industries	South Korea	Green supply chain management practices create RC and SC, which in turn improves supplier's operational and environmental performance.
39	Lioliou and Zimmermann (2015)	•	•	•	• Benefits	Buyer-supplier	Dyadic	Multiple case studies	Financial service industry	Across countries	RC reduces opportunism through reducing behaviour uncertainty between partners. CC reduces opportunism through reducing internal uncertainties. Structural capital, however, has no direct impact but helps in building both relational and cognitive.
40	Schiele, Ellis, Eßig, Henke, and Kull (2015)	•	✓	✓	Benefits	Buyer-supplier	N/A	Conceptual	N/A	N/A	Higher level of social capital dimesons is associated with high level of supplier's satisfaction, which in turn, increases supplier' motivation to allocate resources to the relationship.
41	Whipple, Wiedmer, and Boyer (2015) ^a				AntecedentsBenefits	Buyer-supplier	105 dyads	Survey	Multiple industries	US	Internal process collaborative competencies facilities the development of social capital, which in turn improves operational performance.
42	Gelderman et al. (2016)	*	✓	✓	Benefits Boundary conditions	Buyer-supplier	88 suppliers	Survey	Multiple industries	Across countries	Only CC is positively associated with supplier's strategic performance. No moderating effect of technological uncertainty.
43	Jia, Rutherford, and Lamming (2016)	✓			AntecedentsBenefits	Buyer-supplier	Dyadic	Multiple case studies	Multiple industries	Across countries	Buyer-supplier informal and formal socialisation process lead to culture adaptation, which creates a hybrid culture that develop RC. RC facilitates (continued on next page)

No	Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	
44	Kulangara et al. (2016)	1		✓	• Benefits	Buyer-supplier	357 buyers	Survey	Multiple industries	US	deep socialisation process. RC and SC have a positive impact on buyer's innovation capability. SC enhances innovation capability indirectly through increasing trust.
45	Miocevic (2016)	✓			 Antecedents Boundary conditions 	Buyer-seller	122 sellers	Survey	Multiple industries	Croatia	Buyer's reliance and relational bonding norms enhance RC. As formal institutional distance decreases, the positive impact of buyer's reliance on RC is stronger. As informal institutional distance deceases, the positive impact of relational bonding norms on RC is stronger.
46	Presutti et al. (2016)	*	•	•	 Benefits Boundary conditions 	Supplier-customer	101 suppliers	Survey	Electronics	Italy	Social capital dimensions positively related to supplier's foreign economic performance. However, with low levels of psychic distance the positive impact of RC and CC increases. The positive impact of all dimensions is only for high geographical distance between the partners.
47	Son et al. (2016)	•	•	,	BenefitsRisks	Retailer-supplier	Dyadic (12 retailers and 70 suppliers)	Survey	Fast-moving consumer goods	Korea	Three social capital configurations with a varied level of RC, CC and SC. Higher level of social capital increases both strategic and operational performance to a certain level, suggesting a curvilinear relationship. High dissonance in the level of CC is associated with lower level of strategic and operational performance
48	Cho et al. (2017)	•	•	•	• Benefits	Buyer-supplier	317 buyers	Survey	Restaurant	USA	Social capital dimensions positively influence product enhancement. However, excessive level of RC negatively affects product enhancement. RC and CC positively influence new product development (continued on next page)

No	No Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	
49	Nabi et al. (2017)	✓	/	✓	• Benefits	Buyer-supplier	Buyers	Case study	Shrimp industry	Bangladesh	to a certain level then become negatively related to new product development. RC and SC lead to improved buyer- supplier relationship performance in terms of quality, cost and delivery. CC improves performance through
50	Kim et al. (2017)	✓		1	AntecedentsBenefits	Buyer-supplier	209 suppliers	Survey	Multiple industries	South Korea	leveraging RC. Fairness and referent power positively influence RC and SC, which in turn improve supplier's innovation performance.
51	Leem and Rogers (2017)	•	•	•	Benefits Boundary conditions	Multiple supply chain partners	420 multiple supply chain partners	Survey	NS	South Korea	performance. Social capital dimensions positively influence performance. However, this influence varies according to the supply chain role. For the supplier and distributor, only RC and CC positively influence performance. For the manufacturer and logistics provider, all the three dimensions positively impact firm performance.
52	Jean, Kim, and Bello (2017)	1			Benefits	204 suppliers	204 suppliers	Survey	Electronic	Taiwan	RC capital creates proactive customer orientation and facilitates joint learning, which in turn increase
53	Preston et al. (2017)	✓	•	✓	Benefits Boundary conditions	Buyer-supplier	166 dyads	Survey	Electronic	NS	innovation. SC and CC influence RC. RC increases the transfer of knowledge from the buyer to the supplier, which in turn, leads to greater supplier cost efficiency and innovation. However, this influence decreases in lengthier buyer-supplier relationships.
54	Verwaal (2017)	✓			• Benefits	Manufacturer- supplier	223 manufacturers	Survey	Multiple industries	Netherlands	Supplier RC mitigates and at high levels may even neutralize the negative effect of global outsourcing on firm financial
55	Villena and Craighead (2017)	1			Benefits Boundary conditions	Buyer-supplier	106 dyads	Survey	Multiple industries	Spain	performance. RC reduces opportunism only when both buyer and supplier share the same levels of RC. (continued on next page)

No	No Author(s)	Dime	ensions		Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	
56	Wang and Li (2017)	✓	*	✓	• Benefits	Buyer-supplier	297 Suppliers	Survey	Multiple industries	China	The party with a higher level of RC than its counterpart perceived to be mor opportunist. Buyers observe reduced benefits and supplie perceive slightly improved benefits when suppliers have higher levels of RC. RC is positively related to the development of both
											supplier's potential absorptive capacity (PAC) and realised absorptive capacity (RAC), while SC is only positively related to the development of supplier's PAC.
57	Wang et al. (2017)	✓	•	•	BenefitsRisksBoundary conditions	Buyer-supplier	200 suppliers	Survey	Multiple industries	China	RC and SC positivel affect exploitative learning, while negatively affect exploratory learning However, with contract specificity, the positive impact RC and SC on exploitative learning is stronger, while the negative impact of F and SC on explorato learning is stronger.
8	Wiengarten, Singh, Fynes, and Nazarpour (2017)	•	•	•	• Benefits	Buyer-supply chain partners	513 buyers	Survey	Multiple industries	Across countries	While RC positively moderates the relationship between mass customization (MS) and cost and flexibility performance, CC or positively moderate the relationship between MS and coperformance. No moderating effect was found for structural capital.
59	Zhang et al. (2017) ^a				Benefits Boundary conditions	Buyer-supplier	276 buyers	Survey	Multiple industries	China	Social capital positively associate with knowledge acquisition, knowledge combination, and operational performance. For servitiased firms, social capital directly (through knowledg combination) enhances operation performance. In the traditional manufacturing firm social capital indirectly improves (continued on next page (continued on next page acquisition).

No	Author(s)	Dim	ensions		Research theme (Antecedents, benefits, risks and/or boundary conditions)	Type of Buyer- supplier relationship	Perspective	Method	Context		Relevant findings
		RC	CC	SS					Industry	Country	
60	Fan and Stevenson (2018)	✓	,	✓	Benefits Boundary conditions	Buyers-supplier	Ten buyers	Multiple- case study	Multiple industries	China	operational performance through facilitating knowledge acquisition. All organizational social capital dimensions facilitate the identification of supply chain risk. However, when individual social capital is used for individual's own interest (vs
61	Handoko et al. (2018)	1	✓	✓	BenefitsRisksBoundary conditions	Buyer-supplier	Suppliers	Case study	Automotive industry	Indonesia	organization's), the impact of organizational social capital on risk identification is undermined. Social capital has both enhancing and inhabiting effect on knowledge exchange between buyersuplier. However, this depending on governance mode, power-dependence,
62	Lee and Ha (2018)	1	1	1	• Benefits	Buyer-supplier	210 buyers	Survey	Multiple industries	Korea	and internal conditions. All social capital dimensions increase information inflow from suppliers.
63	Qian et al. (2018)	1	✓	*	Benefits Boundary conditions	Supplier- distributor	393 distributors	Survey	Computer industry	China	However, only RC increases information outflow from buyers to suppliers. SC positively influences buyer's performance. However, under a higher level of RC and political ties and a moderate level of business ties, the positive impact of SC on buyer's
64	Shou et al. (2018)	1		1	AntecedentsBenefits	Buyer-supplier	389 focal company	Survey	NS	Multiple countries	performance is stronger. Human capital and SC positively influence RC. RC, but not SC, increases
65	Sukoco et al. (2018)	1	1	1	• Benefits	Buyer-supplier	211 suppliers	Survey	Automotive industry	Indonesia	supplier intelligence integration. SC and CC capital lead to RC. RC positively related to joint sensemaking but not related to
66	Tipu and Fantazy (2018) ^a				• Benefits	Buyer-supplier	242 buyers	Survey	Multiple industries	Pakistan	knowledge sharing and knowledge integration. Social capital positively influences the implementation of sustainable supply (continued on next page)

No	Author(s)	Dimensions			Research	Type of Buyer-	Perspective	Method	Context		Relevant findings
		RC	CC	SS	theme (Antecedents, benefits, risks and/or boundary conditions)	supplier relationship			Industry	Country	•
67	Uzunca (2018) ^a				• Benefits	Buyer-supplier	Dyadic	Multiple- case study	Automotive industry	Turkey	chain management and organizational performance. Social capital facilities supplier relationship learning.
68	Wu and Chiu (2018)	1	1	1	• Benefits	Focal company- supply chain partners	206 focal company	Survey	Multiple industries	Taiwan	Only SC positively influences supply chain collaboration, which in turn improve the focal firm performance.
69	Yu and Huo (2018)	✓			AntecedentsBenefits	Buyers-supplier	308 buyers	Survey	Multiple industries	China	Internal RC positively influences supplier RC, which in turn improves supplier quality integration, internal quality integration, and customer quality integration.
70	Zimmermann, Oshri, Lioliou, and Gerbasi (2018)	1	1	1	• Benefits	Buyer-supplier	150 buyers	Survey	Multiple industries	Across countries	Social capital dimensions facilitate knowledge sharing.

Note: R = Relational; C = Cognitive; S = Structural; N/A = Not Applicable; NS = Not Specified.

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