

Explaining the interplay of value creation and value appropriation in strategic alliances: A developmental perspective

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Abstract

How firms respectively create and appropriate value by means of alliances are questions that management scholars have considered for several decades. Scholars have identified various factors underlying how alliances create value and how partner firms appropriate such value, respectively. Fewer studies have dealt with how both issues relate, and fewer yet have examined the interplay between value creation and value appropriation as an alliance develops. The purpose of this paper is to organize the extant literature through a theoretically coherent developmental framework that informs research on value creation and value appropriation as distinct but inter-related phenomena. A systematic review of 234 articles reveals factors associated with value creation, factors driving value appropriation, and, especially, interplay factors that explain potential cycles of value creation and value appropriation within an alliance. We also identify some important themes and theoretical directions for future research. This study thus contributes to alliance research by (1) developing a structured framework that explains not only the respective drivers of value creation and value appropriation, but also how they interplay in alliances; (2) explicating theoretically the specific factors that explain the interplay of value creation and value appropriation in cycles of alliance adaptation; and (3) developing recommendations for the further development of theory, especially for these interplay effects.

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INTRODUCTION

How can firms enhance their performance by means of strategic alliances, that is, purposive and durable cooperative arrangements in pursuit of joint benefits (Kale & Singh, 2009)? Scholarship dealing with this problem has typically addressed either of two distinct but related questions: (a) how alliances create value; and (b) how firms appropriate value from strategic alliances (Coff, 1999; Dyer et al., 2018; Lepak et al., 2007; Yang et al., 2021). Value creation refers to the total value that partners' joint efforts generate, while value appropriation (also known as value capture: Dyer et al., 2018) refers to the value that each partner obtains out of the alliance or unilaterally from the other partner (i.e., respectively, common and private benefits) (Khanna et al., 1998). A common if incomplete analogy contrasts the *size* of a pie with the *share* or 'slice' of the pie that each partner receives (Adegbesan & Higgins, 2011; Contractor & Woodley, 2015; Dyer et al., 2008). In principle, a pie must be created before it may be shared. However, in an ongoing alliance, partners observe the value created and the value respectively appropriated and may accordingly negotiate a revised arrangement and adjust their contributions, leading to successive cycles of value creation and appropriation (Doz, 1996; Tower et al., 2021). We describe this as the *interplay* of value creation and value appropriation while the alliance is in progress, where interplay refers both to how two phenomena—here, value creation and value appropriation—inter-relate and to how they may jointly affect further outcomes (Hoffmann et al., 2018).

Although many studies of value creation or value appropriation in alliance research exist, two gaps remain. First, as various authors have pointed out (Adegbesan & Higgins, 2011; Lavie, 2007; Lepak et al., 2007; Ritala & Hurmelinna-Laukkanen, 2018), the value creation and value appropriation literatures have tended to develop as separate streams when it comes to alliances—albeit with important exceptions that we address below—and these two outcomes correspond to different levels of analysis in the case of alliances (Dyer et al., 2018; Khanna et al., 1998; Lepak et al., 2007). Lacking is a structured framework of the factors that contribute to value creation and value appropriation, respectively.

Second, although a common view is that an alliance proceeds through a stage of value creation followed by one of value appropriation, this underestimates the subtlety and richness of what happens during an alliance (Ring & Van de Ven, 1994). As the alliance unfolds, partners may repeatedly reconsider their own prospects and those of the alliance, leading to alliance adjustments and further cycles of value creation and appropriation (Doz, 1996; Tower et al., 2021). Thus, a comprehensive framework should also explain the *interplay* between value creation

and value appropriation in strategic alliances. Accordingly, we focus on the relatively under-researched period during which an alliance is active and value creation and value appropriation recur in adaptive cycles (Martin & Cuypers, 2023). In explaining the interplay, we refer to a set of *factors*, in the broad sense of 'something that helps produce or influence a result' (Merriam-Webster, 2021). Factors encompass causal processes, structural elements, or other explanations (see also Niesten & Stefan, 2019).

We explicate the respective factors and their theoretical foundations that contribute most to explaining value creation, value appropriation, and their interplay. To ground this inquiry, we note that there exist separate mainstream theories about value creation and value appropriation. Our initial topic definition and conceptual search identified two prominent theories, the resource-based and capabilities view (RBV) and transaction cost economics (TCE), which are indeed foundational theories in over 50% of the studies that our subsequent systematic search uncovered (as detailed below). Although originally developed as a theory of firm-level competitive advantage, the RBV is a foundation of much research on the conditions under which an alliance creates value (Das & Teng, 2000; Martin & Park, 2019). Likewise, although its initial focus was on value appropriation in transactions at large, TCE is a foundation of much research on the conditions under which partners can appropriate value in an alliance (Cuypers et al., 2021; Oxley, 1997). Yet, such theories are not inherently dynamic. Thus, the theoretical apparatus to explain the interplay of value creation and value appropriation in adaptive cycles while the alliance is in progress remains to be developed (Martin & Cuypers, 2023; Ring & Van de Ven, 1994). Towards this, we first use a systematic review of 234 articles, gleaned from a multi-database search, to develop a structured framework of the factors that respectively explain value creation, value appropriation, and their interplay in alliances. We organize this framework theoretically around a developmental perspective on alliances (Doz, 1996; Ring & Van de Ven, 1994). On this basis, we identify several theoretically informed gaps and research avenues.

This paper aims to make three main contributions. First, although some scholars have advocated treating value creation and value appropriation jointly (e.g., Adegbesan & Higgins, 2011; Bouncken et al., 2020; Dyer et al., 2018; Lepak et al., 2007), progress has been comparatively slow. Our framework positions value creation and value appropriation as separate but interplaying outcomes, and we provide a comprehensive and structured overview of factors explaining each. Second, we explicate a central set of factors that explain the interplay between value creation and value appropriation during an alliance. These interplay factors have received comparatively little attention

yet are central to explaining recurring cycles of value creation and value appropriation during an alliance, so their examination opens new directions for research. Third, our discussion addresses theoretical bases and topics for future research, and thus aims to stimulate theoretically informed research in this important area.

METHODS

Following recent studies published in the *International Journal of Management Reviews* (IJMR, e.g., Niesten & Jolink, 2020), we perform a systematic literature review. A systematic literature review follows an ‘approach which identifies, analyses and interprets all available evidence related to a specific research question in a way that is unbiased and replicable’ (Fan et al., 2022, p. 173). We employed a structured, transparent, and replicable approach to identifying and evaluating the scientific contributions informing the literature on value creation and value appropriation in strategic alliances. We included only peer-reviewed articles (excluding books, book chapters, and conference proceedings) as the peer-review process qualifies the knowledge that such articles afford (Light & Pillemer, 1984; Ordanini et al., 2008). We organized our search for articles into five steps, as summarized in Table 1:

1. *Keyword-based search of multiple databases.* We identified keyword combinations by surveying recent reviews on strategic alliances published in IJMR (Niesten & Jolink, 2020; Niesten & Stefan, 2019), *Journal of Management* (Castañer & Oliveira, 2020), and *Academy of Management Annals* (Lumineau & Oliveira, 2018). The resulting search string, shown in Table 1, was used first on documents’ titles in the Web of Science database. No time restrictions were adopted, as early work defining and classifying alliances appeared in the late 1980s (e.g., Fuller & Porter, 1986; Ghemawat et al., 1986), coinciding roughly with the first year of structured Web of Science records (1988). Filtering 10 787 documents matching the keywords by categories (management and business) and language (English) relevant to this study yielded 984 articles.

We repeated this search on the Scopus database, which is considered complementary to Web of Science for literature reviews (Dagnino et al., 2021; Martín-Martín et al., 2018). This yielded 1651 articles. Upon merging the results from Scopus with the ones collected from Web of Science, we identified 821 duplicates, leaving 1814 unique articles.

2. *Focus on high-impact journals.* Following Niesten and Jolink (2020), we restricted our results to journals in the first and second quartiles of the Social Science Citation Index, ranked by 2019 impact factor for either relevant category (management and business).¹ Higher-impact journals contain state-of-the-art research and set the future agenda (Furrer et al., 2008; Keupp et al., 2012; Savino et al., 2017), thereby ensuring coverage of dominant themes and debates. This restricted the sample to 661 articles. We then kept the standard high but enhanced the scope of search by including articles published in business and management journals with a 5-year impact factor greater than 3 in 2019 (Dagnino et al., 2021), adding 23 articles. Thus, after step 2, our sample comprised 684 articles.
3. *Title and abstract analysis.* After collecting all results in a reference management program, we read all titles and abstracts, and as necessary the full text of articles, to ascertain whether basic criteria of relevance were fulfilled (Rashman et al., 2009), and ruled out articles outside the scope of our review (Adams et al., 2016; Keupp et al., 2012). To ensure reliability, we developed an abstracts evaluation protocol (Lipsey & Wilson, 2001). Consistent with the reasoning underlying our keywords choice, in the protocol, we adopted broad definitions of alliances (Gulati, 1995, p. 621) and value creation and value appropriation (Khanna et al., 1998, p. 195). Beyond this, core criteria were that the article should address value creation, value appropriation, or the interplay between them. Moreover, we assessed whether articles using related concepts such as performance, goal, and outcome should be included by examining the sentences in the abstract and, as necessary, in the full text in which these were mentioned. We did this to ascertain if they referred, with due contextualization, to value creation or value appropriation. The protocol allowed us to exclude articles that did not focus on alliances primarily (e.g., articles for which the keyword ‘cooperation’ or ‘collaboration’ is related to supply chain relationships), articles referring to ‘value’, where economic value creation or appropriation was not the focus (e.g., articles about national or cultural values) (Niesten & Stefan, 2019), and articles referring to goal, outcome, or performance in alliances (e.g., personal goals of managers) but

¹ Journals were ranked by 3-year impact factor. Therefore, the first criterion led us to collect articles with impact factor ranging from 11 750—the impact factor of the top-cited journal of the first quartile) to 2476—the impact factor of the least-cited journal of the second quartile.

TABLE 1 Sample inclusion and exclusion steps and criteria.

Step	Inclusion criteria	Exclusion criteria
1	<p>Articles published until the end of 2021, including early view</p> <p>Articles reporting combined value and alliance keywords. Value keywords: value creat*, value generat*, value appropriat*, value captur*, perform*, goal*, outcome*; alliance keywords: alliance*, collab*, cooper*, partner*, joint venture*. These keywords are used by Niesten and Jolink (2020). We also included joint venture because this type of alliance inevitably brings out considerations on value creation and value appropriation because of equity's division among alliance partners</p> <p>Articles published in Web of Science and Scopus databases (using the same string)</p> <p>Articles published in management and business categories (Web of Science) and management, business, and accounting category (Scopus)</p> <p>Articles in the English language</p>	<p>Book chapters, books, or conference proceeding papers</p> <p>Articles published in a language other than English</p> <p>Articles exclusively describing empirical examples or cases</p>
2	<p>Articles published in high-impact journals, in the 1st and 2nd quartiles of the SSCI, ranked by impact factor (Niesten and Jolink 2020)</p> <p>Articles published in peer-reviewed journals (5Y IF > 3 in 2019) (Dagnino et al., 2021)</p>	<p>Articles published in 3rd and 4th quartiles of the SSCI</p> <p>Articles published in journals with 5Y IF < 3 in 2019</p>
3	<p>Articles addressing value creation and value appropriation in alliances</p> <p>Articles based on theoretical arguments</p>	<p>Articles that did not focus on alliances primarily (e.g., articles for which the keyword 'cooperation' or 'collaboration' is related to supply chain relationships)</p> <p>Articles that referred to value, but where value creation or appropriation was not the focus of the study (Niesten & Stefan, 2019)</p>
4	Dyadic alliances	Articles whose level of analysis is primarily different from dyadic alliances (alliance between two partners)
5	Articles manually added from Google Scholar and citation tracking (Solarino & Boyd, 2020)	Same as in steps 2, 3, and 4

without relating to the core concepts of (economic) value creation or value appropriation in and via alliances.

Using the protocol, two independent coders read each title and abstract and, whenever necessary, referred to the entire article. Following previous studies (Lumineau & Oliveira, 2018; Oliveira & Lumineau, 2019), both coders assessed each article into three non-ordinal, non-overlapping categories: irrelevant (= 0), relevant (= 1), and unclear (= 2). We used the 'unclear' category to avoid forcing the coders to make a choice (Krippendorff, 2004). An inter-coder analysis shows a highly satisfactory level of

agreement (Cohen's Kappa = 0.814), that is, agreement on considering the article irrelevant or relevant was not due to chance (Cohen, 1960). Thus, 318 of the 684 articles were coded as irrelevant while 272 as relevant. The remaining 94 articles were read by a third coder who independently decided on relevance after reading the full text. As a result, we identified 284 relevant articles in total.

4. *Full-text assessment.* The fourth step entailed retrieving the 284 articles and reading the full texts to examine what level(s) of analysis each study dealt with. Detailed factors at work within an individual alliance differ plausibly from concepts relevant to

more aggregated levels of analysis such as portfolios and networks of alliances (Dagnino & Ferrigno, 2015; Ferrigno, 2017). To understand how value creation and value appropriation occur and interplay in alliances, we focused on articles that mostly examined dyadic relationships (even if they may have referred to or controlled for factors at other levels). This is because most of the literature relates to dyadic alliances and a greater range of factors can be analysed at that level. After comprehensive assessment, we retained 216 studies from the combined Web of Science and Scopus search.

5. *Hand searching.* Through hand searching on Google Scholar (Beugelsdijk et al., 2018; Solarino & Boyd, 2020) and citation tracking (Adams et al., 2016; Rashman et al., 2009), we included a further 18 articles, leading to a final sample of 234 publications. We verified that these articles also met the criteria under steps 2, 3, and 4.

We analysed the final sample by developing a coding protocol (Lipsey & Wilson, 2001; Marano et al., 2016) to extract data on all relevant variables and study characteristics. We used an Excel spreadsheet (Rashman et al., 2009) in which, beyond the descriptive elements (e.g., authors, source title, year, and abstract) that were downloaded from Web of Science, Scopus, and Google Scholar, we coded the following elements: main theoretical perspective; research question; methods (empirical, conceptual, literature review; if empirical, qualitative, quantitative, both); sample period, size, country, industry, and sector (government, non-profit, business); alliance phase; partner type (domestic, international); type of alliance (joint venture, non-equity alliance); alliance purpose (marketing, manufacturing, R&D, multiple); value creation factors; value appropriation factors; main arguments related to value creation or value appropriation; future research questions; and any relevant literature not previously identified. We further coded the contingencies identified in the literature, such as depending on the context of the alliance and its initial setup.² We pre-tested the coding scheme and obtained feedback from two scholars in the field, validating the final set of information to be coded.

Two authors coded all the data extracted from the 234 articles, and a third author manually rechecked them to assess the degree of agreement about the information extracted (Stanley & Doucouliagos, 2012). A few discrepancies were resolved via discussion until a consensus was reached. Coded details are available from the authors upon

² An appendix describing these contingency factors, and how they may in turn moderate the effect of specific value creation, value appropriation, and interplay factors, is available from the authors.

request. The results below contain our synthesis and reflection on these 234 articles, enabling a parsimonious yet comprehensive review of the literature.

Descriptive statistics

As shown in Figure 1, the distribution of articles per year shows a positive trend in the number of articles published, especially in recent years, validating the importance of a systematic review. Online Appendix 1 provides descriptive statistics about the articles. As reported in Online Appendix 1a, the 234 articles appeared in 60 different journals. Statistics about the contents of the articles, several of which serve as the basis for the discussion below, are in Online Appendix 1b.

RESULTS

Framework overview

In discussing the conceptual results of our systematic review, we advance a cyclical framework (presented in Figure 2). To position the framework in a broader perspective, we distinguish three phases of the broader life-cycle of a single alliance (Ariño & de la Torre, 1998). The first is a *pre-alliance* (planning) phase: given initial motivations and conditions, various partners are considered, a specific partner pairing is set and the arrangement structured, and goals and initial commitments are agreed (Doz, 1996; Lioukas & Reuer 2020). This stage is indicated by the inward arrow and mention of 'Pre-alliance decisions and conditions' at the bottom of Figure 2. The second, more open-ended phase occurs once the alliance starts *operating* and is *in progress*. Given our research question, we focus on this complex phase where activities of value creation and value appropriation and their interplay take place, and recurring evaluations of activities and partners may trigger cycles of alliance adaptation (Doz, 1996; Ring & Van de Ven, 1994). This is the central part of the framework. A third, *post-alliance* phase includes evaluation of the past alliance and planning of any subsequent ones (Doz, 1996). This is indicated by the outward arrow titled 'Post-alliance evaluation' at the bottom of Figure 2.

The central part of the framework structures the factors identified in the literature based on their main effect and level of analysis (firm, inter-partner, and alliance level) where they are most relevant according to the literature,³

³ Following Dagnino et al. (2021), we estimated the frequency with which each factor appears in the literature, and only report factors that are

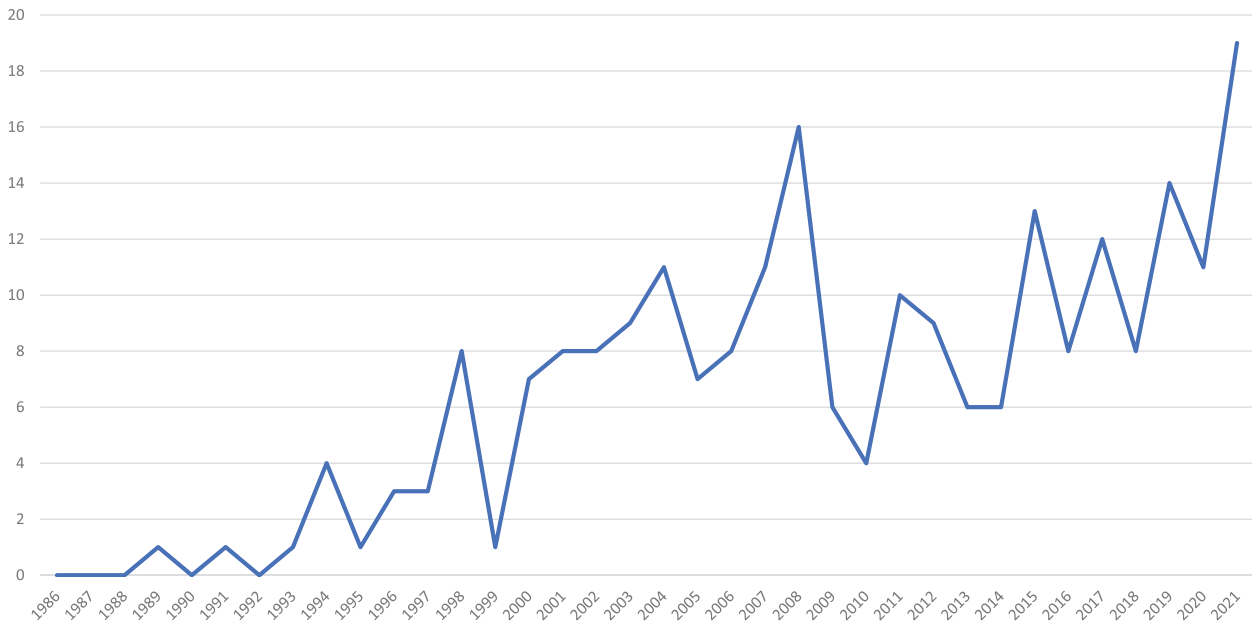


FIGURE 1 Distribution of articles per year. [Colour figure can be viewed at wileyonlinelibrary.com]

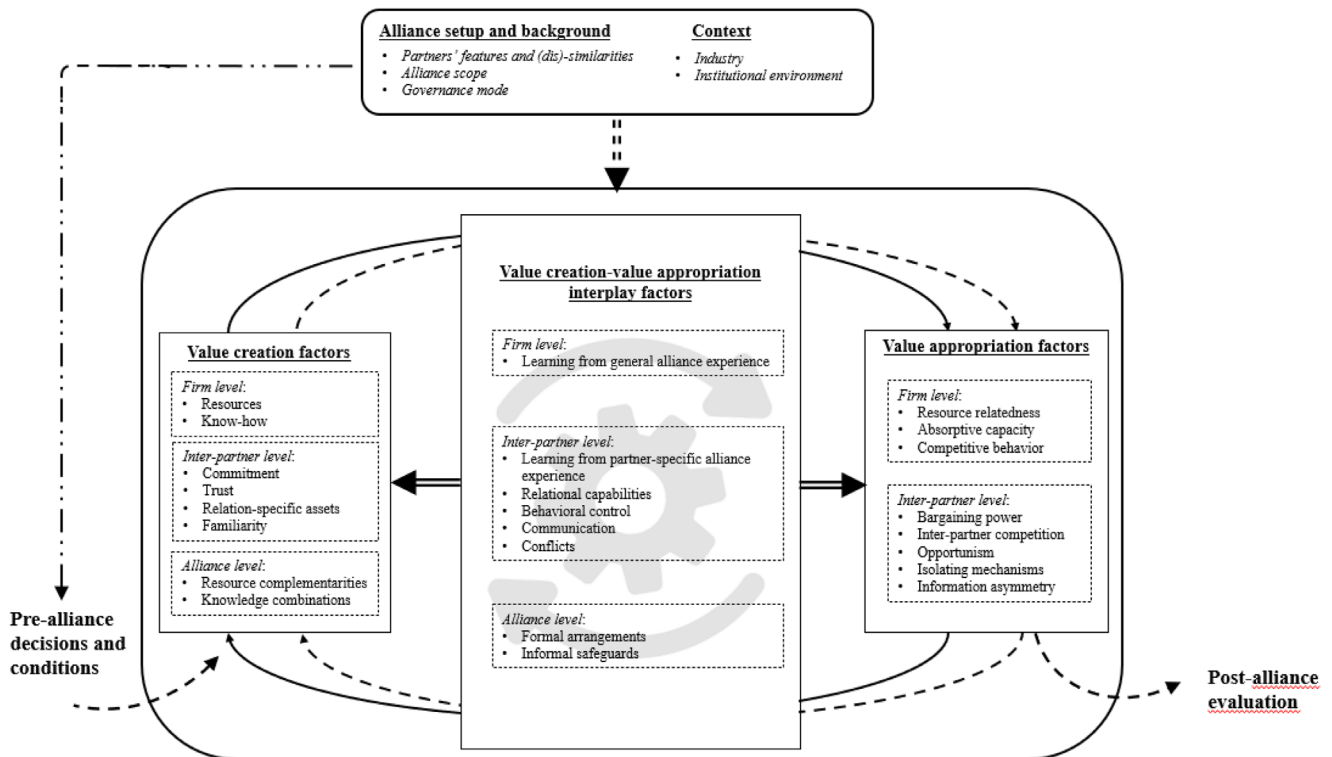


FIGURE 2 Cyclical framework of value creation, value appropriation, and interplay factors. [Colour figure can be viewed at wileyonlinelibrary.com]

frequently and prominently used. In some cases, the literature may not be entirely consistent, and a factor may be associated with a different dimension of value or a different level of analysis depending on its conceptualization and use in a particular article. Nevertheless, we allocate each factor in one box based on its most common use in the literature.

and conveys the central if oft-neglected role of interplay factors and how they animate cycles of value creation and value appropriation. This is conveyed in part by the

In Online Appendix 2 we report exemplary references for each factor, following the structure of the framework.

two sets of horizontal arrows that connect the value creation and value appropriation factors in a cyclical pattern that passes through the box of interplay factors. Furthermore, the interplay factors play a generative role (Doz, 1996; Ritala & Hurmelinna-Laukkanen, 2018) which the rotating-gear background image conveys.

At the top of the figure, we position alliance setup (e.g., partner characteristics, alliance features, and governance mode) and contextual conditions (e.g., industry and institutional environment). Space precludes in-depth coverage of these conditions that have largely been studied in the literature on alliance formation anyway (and about which an appendix is available from the authors), but we include two vertical arrows to indicate that some of these conditions may not only shape the initial alliance decisions but also change in a manner that triggers adaptive interplay while the alliance is in progress.

Having described these core concepts, we turn to how this framework explicates theoretically not only creation and value appropriation, but also their interplay while an alliance is in progress. We start by considering the timing and nature of the interplay between value creation and value appropriation.

Conventionally, a simple two-stage sequence exists in that value must be created before it can be appropriated (Khanna et al., 1998; Lepak et al., 2007). However, a developmental theoretical perspective (Das & Teng, 2002; Ring & Van de Ven, 1994) allows us to expand on this idea. As the alliance starts to operate, value creation as we defined at the onset occurs. On this basis, each partner stands to obtain a share of common benefits as well as any private benefits, which together represent value appropriation (Khanna et al., 1998). The core premise of a developmental perspective is that, as this unfolds and as conditions change within and around an alliance, discussions among partners and adjustments in the alliance are prone to happen (Doz, 1996). We identify as interplay factors a set of conditions that guide and propel this process. Assessing alliance activities, each other, and the potential to adapt the alliance, the partners negotiate and implement adjustments that generate subsequent cycles of value creation, value appropriation, and further adaptation (Doz, 1996) (or in the worst case, terminate the alliance; Ariño & de la Torre, 1998). This interplay thus explains, uniquely, how *repeated* cycles of value creation, value appropriation, and further adaptation occur (Doz & Hamel 1998; Ring & Van de Ven, 1994).

To explicate these elements, in the main part of the framework, we position separate sets of value creation factors (box on the left) and value appropriation factors (box on the right). In the middle, we position interplay factors, which enable and bound the interactions among

partners and thus the recurring alliance adjustments that determine further value creation and appropriation. They may contribute to value creation or value appropriation by themselves, but stand out because they explain the interplay that occurs through cycles of adjustment. We especially seek to elucidate these factors (Doz, 1996; Ritala & Hurmelinna-Laukkanen, 2018), given their central and generative role as conveyed visually in Figure 2. Next, we describe each set of factors in turn, with particular attention to the mechanism of each and to the main theoretical foundations of each set of factors.

Value creation factors

The alliance literature suggests diverse factors associated with value creation in strategic alliances at different levels of analysis (firm, inter-partner, and alliance level). Consistent with our initial theory scoping, a common foundation of several of these factors is the RBV; however, no single theory explains all value creation factors, and the list below thus results uniquely from our expanded systematic search.

Firm level

In a typical firm-level RBV argument, a fundamental driver of value creation relates to the attributes of the *resources* contributed by a partner. In alliance research, resources are tangible and intangible assets and inputs that may be pooled to develop, produce, or market products and services (Lavie, 2007). Extending RBV arguments to alliances, Das and Teng (2000) argued that when partners contribute resources with attributes such as imperfect mobility, imitability, and substitutability, greater common benefits result. In this regard, Ainuddin et al. (2007) found that firms' product reputation, technical expertise, local business network, and marketing skills were associated with value creation.

A separate if related line of reasoning in alliance research emphasizes the importance of knowledge contributions, especially *know-how*, for value creation (Chang et al., 2008; Nielsen, 2007). This represents a stock of knowledge and expertise, principally gained from experience, which can generate economies of scope (Helfat, 1997; Nonaka & Takeuchi, 1995). In an alliance, the know-how contributed by partners gets developed and refined (Chang et al., 2008). Knowledge, and specifically know-how, is thus an essential ingredient that partners can contribute in an alliance to create value (Dyer et al., 2018). As such, know-how can be considered a type of resource. However, know-how receives separate treatment in much of

the literature, including that covered in our systematic review. That is because of the researchable specificities of the knowledge accumulation (i.e., learning) process that engenders it, because of the scope and transfer that this knowledge dimension permits, and because of the unique appropriation concerns that this creates in turn (e.g., Ferrigno et al., 2022; Helfat, 1997; Martin & Salomon, 2003b; Teece, 1980).

Inter-partner level

Commitment is defined in alliance research as ‘the belief in and acceptance of organizational goals and values, a willingness to exert effort on behalf of the [joint] organization, and a desire to maintain organizational relationship’ (Johnson et al., 2002, p. 1143). Thus, commitment is associated with loyalty and continuity of effort and contribution by alliance partners (Demirbag & Mirza, 2000; Robson et al., 2006). Continued commitment between partners is therefore essential to spur efficient alliance operations (Doz, 1996). In that way, commitment ensures that the alliance is able to create value. Conversely, weak commitment will hamper the potential of the alliance to create ongoing value.

A further value creation factor operating at the inter-firm level is *trust*, that is, ‘the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party’ (Mayer et al., 1995, p. 712). The greater the trust in the relationship, the more willing the two parties will be to share their resources in a transparent way (Jiang et al., 2015). Costa e Silva et al. (2012) reported that, when controlling for the experience and size of a firm as proxies for partner resources, trust between partners has a strong and beneficial effect. Similar findings appeared in other works (Mohr & Puck, 2013; Robson et al., 2008). However, too much trust can lead to complacency or mistaken confidence. Therefore, some scholars also investigated boundary conditions of trust. Thus, Krishnan et al. (2006) found that very high levels of trust may have a detrimental effect on alliance performance, especially when the environment is very volatile.

Another important factor of value creation at the inter-partner level pertains to *relation-specific assets*, that is, dedicated investments that partners make (Dyer et al., 2008; Lunnan & Haugland, 2008; Tatoglu & Glaister, 1998). As an example, ‘Toyota and its suppliers had one-third the inventory to sales ratio as GM, Ford, and Chrysler in large part due to supplier investments in dedicated plants located close to Toyota’s plants, which lowered inventory and transportation costs’ (Dyer et al., 2008, p. 140). Following RBV reasoning, relation-specific assets generate

valuable complementarities and allow greater efficiency in alliances (Dyer et al., 2018; Hoang & Rothaermel, 2005). However, to be most effective, investments of relation-specific assets should be symmetric, in that both partners make them; otherwise, transaction costs may impede value creation (Dyer, 1996).

Familiarity between partners refers to how well the partners know each other, and as such it should facilitate joint action (Servajean-Hilst et al., 2021). Specifically, familiarity maximizes the benefits of the collaboration by favouring faster decision-making, especially in innovative alliances (Kobarg et al., 2019). However, perhaps because familiarity may reduce attention, some studies have found it to have a curvilinear association with joint value creation (Servajean-Hilst et al., 2021).

Alliance level

Especially at the alliance level, resource complementarities and knowledge combinations have received a great deal of attention in research on value creation in alliances. *Resource complementarities* occur when mutually reinforcing resources can be combined to maximize the benefits of the collaboration (Jiang & Jiang, 2019). Using RBV reasoning, Choi and Beamish (2013) proposed that resource complementarities enable greater synergies. Others argued that resource complementarities enable more effective pursuit of market opportunities, especially in changing environments (Sarkar et al., 2001). Nevertheless, effective integration and utilization of complementary resources requires intensive joint efforts (Lin et al., 2009). Therefore, realizing the value of resource complementarity is not automatic (Choi & Beamish, 2013).

Innovation and related knowledge creation activities involve a recombination process (Ferraris et al., 2019). In alliances, *knowledge combinations* involve the assembly of knowledge to achieve strategic opportunities that could not be accomplished otherwise (Colombo et al., 2015; Dyer & Singh, 1998). The knowledge that is combined and further developed within an alliance is thus distinct from any other and represents an important source of value creation (Choi, 2020). However, a countervailing effect that the RBV suggests with regard to this value creation factor is that the pursuit of novel knowledge combinations may come at the expense of efficient operations in an alliance (Huang & Chiu, 2020).

Value appropriation factors

The alliance literature has identified several factors driving the appropriation of the value created in strategic

alliances. Theoretically, consistent with what our initial inquiry suggested, TCE is comparatively useful in explicating factors at the other two levels of analysis (firm and inter-partner), though again our systematic review yields value appropriation factors beyond what any single theory can explain.

Firm level

‘The successful acquisition of private benefits from an alliance is more likely to occur when: (1) the firm’s scope of resources and activities is more related to the alliance’s activities (the firm has more related resources), and (2) the firm has developed absorptive capacity and effective intraorganizational routines to facilitate intra-firm knowledge and resource transfers’ (Dyer et al., 2008, p. 141). As such, resource relatedness and absorptive capacity are key drivers of value appropriation at the firm level (Contractor & Woodley, 2015).

Resource relatedness indicates that a firm possesses resources related to the ones involved in the alliance or that may be acquired from the partner indirectly, such as when the firm has common customers, channels, input and suppliers, processes, and technological knowledge base (Jiang & Li, 2008). When a firm possesses such related resources, its ability to obtain resources or knowledge from or via an alliance and transfer them to other business units/divisions increases, and therefore more value can be appropriated. This is also, sometimes, referred to as ‘superior complementarity’ (Adegbesan & Higgins, 2011).

Absorptive capacity originally refers to a firm’s ability to understand, assimilate, and exploit external knowledge (Cohen & Levinthal, 1990). Specifically, a firm’s ability to explore new technologies and market opportunities outside the alliance depends on its capacity to absorb the partner’s knowledge (Jin & Wang, 2021; Lavie, 2007). As such, absorptive capacity is closely associated with differential gains in knowledge from alliances, and thus with value appropriation (Seo et al., 2022).

A further ingredient of value appropriation is related to partners’ competitive behaviour. In general, *competitive behaviour* refers to one party’s striving to exceed another to obtain a gain or outcome at the exclusion or expense of the other, a typical TCE concern (Yu et al., 2013). Specifically, competitive behaviour in alliances reflects ‘the extent to which partners compete in terms of trying to gain more power, ... competing for resources and benefits and likewise’ (Su & Bao, 2018, p. 325). Such behaviour distracts firms from pursuing equitable returns (Ring & Van de Ven, 1994), though this often results in short-term benefits in terms of value appropriation (Ariño & de la Torre, 1998; Dussauge et al., 2000).

Inter-partner level

In alliances, the firm’s capacity to appropriate value depends also on its relationships with its partner (Dyer et al., 2008; Lavie, 2007). *Bargaining power*, referring to the ongoing ability to secure better terms and win accommodations from the partner (Yan & Gray, 1994), is commonly held as a major factor that affects the distribution of value between alliance partners (Adegbesan & Higgins, 2011; Ozmel et al., 2017). As Lavie (2007, p. 1193) argued: ‘because of the quasi-formal nature of alliances and the inherent incompleteness of alliance agreements, bargaining power matters ... throughout the alliance life cycle’. Khanna et al. (1998) argued that an alliance partner’s share of the common benefits generated through an alliance depends especially on that partner’s *relative bargaining power*. However, the imbalanced use of bargaining power may backfire if the value appropriated becomes too inequitable between partners (Yan & Gray, 1994).

A second value appropriation factor relates to *inter-partner competition*. A separate concept from the general partner-level competitive orientation mentioned above, inter-partner competition refers to the condition where both partners try to maximize private interests at the expense of the alliance or of each other (Lavie, 2006; Luo et al., 2007). Research connects such joint behaviour with uneven and potentially unpredictable ratios of unilateral private benefits to collaborative common benefits in an alliance (Khanna et al., 1998; Wang et al., 2019). However, Bouncken et al. (2020) argued that this will make both partners more sensitive to each other’s inputs and outcomes, which can contribute to more equity in outcomes as defined above.

A third value appropriation factor is *opportunism*, that is, the propensity among partners to take advantage of each other for pursuing private gains (Hamel, 1991; Inkpen & Beamish, 1997). This is a quintessential TCE concern. As Lavie (2006, p. 646) argued: ‘salient opportunistic behaviour in alliances may involve a tendency to cheat or defect from mutual agreements, unilaterally reduce investments in joint activities, and pursue self-interested objectives that maximize short-term private benefits at the expense of partners’ common benefits’. When there is opportunistic behaviour in the relationship between partners, levels of private benefits extracted increase, and there will be greater imbalance (and variability) in the value appropriated by the respective partners (Parkhe, 1993).

Conversely, *isolating mechanisms* refer to a set of barriers (knowledge, physical, or legal) that impede the flow of knowledge from one firm to another (Rumelt, 1984). They obstruct imitation (Lavie, 2006) and prevent replication of any knowledge, assets, and activities performed by other firms (Huang & Chiu, 2020; Lepak et al., 2007).

Thus, following TCE logic, in an inter-partner relationship, isolating mechanisms pertain not to a focal partner appropriating value from another, but rather to the focal partner precluding the *other* partner from appropriating the focal partner's resources. This affects value appropriation by limiting the other partner's private benefits and, in turn, this may allow the focal firm to obtain a superordinate share of value (Jiang et al., 2016). However, when the relationship involves two partners that deploy strong isolating mechanisms, the net effect is that the value appropriated consists mostly of common benefits (Jiang et al., 2016; Khanna et al., 1998).

Additionally, *information asymmetry* issues may arise between alliance partners when only one of them possesses critical information about the value of certain assets (Chennamaneni & Desiraju, 2011). When information is asymmetric, from a TCE perspective, the concern is that the partner with privileged information can leverage this advantage to appropriate more resources, or to withhold these resources from the alliance while retaining its share of common benefits; either scenario changes the balance of value appropriated between partners (Jiang & Jiang, 2019; Su & Bao, 2018). As such, this also affects the equity of returns between the two partners, albeit in a more surreptitious way (Jiang & Jiang, 2019).

Finally, we note that our review did not unearth any value appropriation factor operating principally at the alliance level. This is consistent with our premise that value appropriation is fundamentally a matter between partners.

Value creation–value appropriation interplay factors

The factors identified here may also contribute directly to value creation or value appropriation, but more importantly they contribute to adaptability and thus to the cycles of interplay of value creation and value appropriation adjustment that an alliance may go through (Doz, 1996; Ring & Van de Ven, 1994). As such, most of them are processes or organizational arrangements that enable or constrain change while an alliance is in progress. More importantly, we noted that articles discussing value creation–value appropriation interplay factors employ diverse theoretical perspectives. Three of them—RBV, TCE, and the knowledge-based view and related learning theory (in short, KBV)—are prominent in explaining these factors (as summarized in Online Appendix 1b). However, even as a set, they do not suffice to explain the set of interplay factors. We return to this area for theory development in the next section.

Firm level

Much literature has examined the alliance experience as a crucial learning mechanism that enables improvements in both value creation and value appropriation (e.g., Anand & Khanna, 2000; Bouncken et al., 2020; Merchant & Schendel, 2000). Furthermore, learning from alliance experience might be general (i.e., a firm accumulates knowledge from all prior alliances regardless of partner) or partner-specific (i.e., a firm develops knowledge from current or repeated alliances with the same partner) (Hoang & Rothaermel, 2005; Lane & Lubatkin, 1998). In this subsection, we discuss learning from general alliance experience, while we return below to dyadic experience as an inter-partner matter (Gulati et al., 2009).

Learning from general alliance experience results when a firm's inferences from past alliance experiences are encoded in new routines that can be activated to adjust any alliance when comparable circumstances arise (Hoang & Rothaermel, 2005). Such experience enables a partner to better deploy its own resources and know-how, facilitates resource transfer and knowledge-sharing, and enables the firm to better anticipate and manage various kinds of alliance partners (Kafouros et al., 2020; Liu & Ravichandran, 2015). As Bouncken et al. (2020) suggested, firms with a significant alliance experience might have particularly good ideas about what criteria and solution strategies are appropriate. This enables both improvements in the efficiency of an ongoing alliance and greater flexibility and foresight regarding the distribution of the resulting returns (Chang et al., 2008; Simonin, 1997). In addition, general alliance experience contributes to the firm's ability to anticipate, negotiate, and implement beneficial and mutually sustainable adjustments in the alliance (Hoang & Rothaermel, 2005; Martin & Cuypers, 2023; Wang et al., 2021). It is thus a broad generative factor for the interplay of value creation and value appropriation through cycles of alliance development and adaptation.

Inter-partner level

A large body of alliance research has covered *learning from partner-specific alliance experience* (Liu & Ravichandran, 2015; Wang et al., 2021). As previously mentioned, this factor indicates that a firm may accumulate knowledge from current or repeated alliances with the same partner (Hoang & Rothaermel, 2005). Such experience helps minimize coordination and transaction costs, thereby enabling investments in successive improvements of the alliance (Dyer & Singh, 1998; Gulati et al., 2009). Furthermore, Holloway and Parmigiani (2016) reported that shared

experience between partners enables improvements in task allocation, while Zollo et al. (2002) argued that it allows the partners to better comprehend how their skills and assets fit together and to harness feedback towards further improvement. Through these channels, shared partner experience enables cycles of improvement in the value created in an alliance (Liu & Ravichandran, 2015). It also allows a more collaborative approach to the distribution of common benefits, and a more reasoned approach to the occurrence of private benefits (Dyer & Singh, 1998). Thus, shared partner-specific experience contributes to cycles of adjustment that enhance value creation while maintaining harmony in value appropriation. However, such experience is not without potential downsides. As partners accumulate shared alliance experience, taken-for-granted practices and routines may generate path dependency and rigidities (Belderbos et al., 2012; Hoang & Rothaermel, 2005). In such situations, the alliance stagnates, and value appropriation may become imbalanced (Lane & Lubatkin, 1998). Therefore, the nature and adaptive focus of prior dyadic collaborative experience makes a difference to what cycles of value creation and value appropriation are generated (Doz, 1996).

Value creation–value appropriation interplay is also determined by the *relational capabilities* between partners (Capaldo & Petruzzelli, 2011; Dyer & Singh, 1998). Capaldo and Petruzzelli (2011, p. 274) defined these as ‘interorganizational capabilities needed for allied firms to be able to jointly manage interorganizational resources, capabilities, and processes in ways that allow the partners to both generate relational rents and appropriate abnormal returns’. Relational capabilities facilitate the buildup of social capital and the sharing of tacit knowledge (Martin & Salomon, 2003a; Uzzi, 1996), thus enabling ongoing operational improvements. They also make partners confident that relationship problems can be avoided, minimized, or resolved appropriately, that each partner will receive an equitable share of the value created through collaboration, and that future adaptation will be possible (Fang et al., 2008; Heimeriks & Duysters, 2007). In so doing, they enable ongoing cycles of value creation and value appropriation. However, beyond a threshold, the embeddedness that results from reliance on relational capital can blind partners to alternatives and thus renders alliances less effective and adaptable (Uzzi, 1997).

Another important factor affecting adaptability is control (Demirbag & Mirza, 2000). Control can be conceptualized as ‘an evaluation process which is based on the monitoring and evaluation of behaviour or of outputs’ (Ouchi, 1977, p. 95). Thus, some scholars devoted attention to output control, considering for example dominant versus shared control exercised by each partner over alliance activities (Christoffersen, 2013). However, our review high-

lights *behavioural control*, which can have a powerful effect on joint adaptability (Doz, 1996; Ring & Van de Ven, 1994). Robson et al. (2012, p. 5) defined behavioural control in alliances as ‘the regulation of ... alliance operations in terms of standard procedures, rules, and routines; specified individual roles; and reporting and approval processes’. Behavioural control is effective in exerting continuous control in the alliance, thus ensuring reliability, and in managing contributions and the distribution of benefits among partners (Stouthuysen et al., 2017). Thus, behavioural control enables the interplay of value creation and value appropriation. However, the literature also points out that behavioural control is not without downsides. It may reduce partners’ willingness to increase their effort, if this monitoring strategy is perceived as intrusive and distrustful, thereby inhibiting value creation (Musarra et al., 2016). The use of behavioural control may also exacerbate partners’ focus on protecting their contributions and favour reliability over flexibility, thus hampering adjustments in value appropriation (Hamel, 1991).

Communication between partners is a key social mechanism in alliances (Ali et al., 2021). Communication can be defined as both formal and informal sharing of meaningful and timely information between alliance partners (Anderson & Narus, 1990). Extensive communication demonstrates openness, which reflects the willingness and ability of the alliance partners to share information or knowledge (Robson et al., 2006). A fluent communication between partners enables them to collaborate to create more value (Bastida et al., 2017). Communication is an important determinant of trust, aligns perceptions and expectations, decreases misunderstandings, and facilitates coordination between partners (Vivek & Richey, 2013). Moreover, communication and the resulting transparency reduces the chance of opportunism in value appropriation (Dyer, 1997) and allows alliance partners to deal better with internal processes and external market conditions (Agarwal et al., 2010). Conversely, inappropriate communication makes it difficult to evaluate the uncertainties and value creation opportunities emerging from a specific alliance (Ring & Van de Ven, 1994). Thus, the quality of communication shapes both value creation and value appropriation. Communication also plays a central role in cycles of renegotiation and alliance adjustments. Thus, it is a powerful factor in the interplay between value creation and value appropriation in an alliance (Doz, 1996).

A further ingredient of the interplay between value creation and value appropriation emerges from inter-partner *conflicts*, that is, written or oral exchanges expressing disagreement between partners (Christoffersen, 2013). Although they may arise in many forms (Demirbag & Mirza, 2000; Ding, 1997), inter-partner conflicts usually emerge from different decision-making, managerial

processes and style (Julian & O’Cass, 2002), and are particularly evident in international alliances (Jin & Wang, 2021). Conceptually, inter-partner conflicts can impede the flow of information between the partners and the alliance, and can convey negative or ambiguous signals to alliance employees about the alliance’s priorities and how to work with the partner firms (Christoffersen, 2013). Conflict is often considered distracting, forcing the partner to devote valuable resources away from value-adding activities, and impeding progress of the alliance (Wang & Rajagopalan, 2015). However, empirical research does not consistently support this assumption. For instance, Farrell et al. (2011) found that high levels of conflict between the partners do not necessarily lead to less learning success. A possible explanation is that some degree of open conflict is important in unearthing issues with alliance effectiveness and equitability, and thus in resolving these issues (Ring & Van de Ven, 1994). If well managed, conflict could then enable, rather than hamper, alliance development and the fruitful interplay of value creation and value appropriation (Ariño & de la Torre, 1998).

Alliance level

Many scholars examined the effect of *formal arrangements* between partners. These include any formalized, legally binding agreement or contract to govern the alliance (Lee & Cavusgil, 2006). By formalizing the expected actions of each party and enhancing monitoring, formal arrangements affect value creation and can formalize a path for operational improvement in measurable dimensions of the alliance (Hoetker & Mellewigt, 2009). They also enable harmonious value appropriation as they help mitigate opportunism (Hoetker & Mellewigt, 2009) and favour equity in the alliance (Lee & Cavusgil, 2006). However, formal arrangements present a countervailing downside in that they prevent or slow adaptation when things need to be changed (Lin & Ho, 2021). Thus, again, the literature shows both enabling and impeding aspects of formal arrangements on the adaptive interplay of an alliance.

Several scholars emphasized the important role that *informal safeguards* play in deterring potential opportunistic behaviour in an alliance (Dyer & Singh, 1998; Judge & Dooley, 2006). Informal safeguards are relational mechanisms that do not rely on formal contracting or legal recourse, but rather on interpersonal and social norms (such as goodwill and joint decision-making) to ensure self-enforcing coordination and control (Subramani & Venkatraman, 2003; Zajac & Olsen, 1993). Drawing on the relational view, Dyer and Singh (1998) suggested that the design of informal safeguards positively influences value creation as partners are more prone to invest in relationship-specific assets. Related work (Dyer et al., 2018) argued that

informal safeguards favour fairness and discourage opportunism, thus enabling equitable value appropriation and building confidence among partners. Differently from formal arrangements, informal safeguards encourage greater adaptability of the alliance to environmental changes (Apa et al., 2020; Lee & Cavusgil, 2006). Thus, whereas formal arrangements may either enable or impede adaptation of an alliance, informal safeguards are comparatively reliable in spurring cycles of improved value creation and value appropriation as an alliance develops, provided they are effective enough.

IMPLICATIONS FOR BUILDING THEORY ABOUT THE INTERPLAY OF VALUE CREATION AND VALUE APPROPRIATION

The framework in Figure 2 allowed us to single out the key factors for value creation, value appropriation, and their interplay. Here, we reflect further on the key theoretical perspectives underlying these effects, focusing on the under-studied yet critical interplay factors. For this purpose, we first take stock of prominent theories as identified through the part of the systematic review addressing interplay.

As reported in Online Appendix 1b, the articles employ diverse theoretical perspectives, but three—RBV, TCE and to a lesser extent KBV—are most prominent, appearing between them in 67% of studies. We address the use of these and three less prominent but commonly used perspective (agency theory, relational view, and resource dependence) below. Focusing on the smaller literature that touches on the interplay dimension (which no more than 60 articles in our final sample address, many obliquely), we find a similar pattern (see numbers in parentheses in the Online Appendix). Given this, we first examine the specific use and boundaries of the three main perspectives in explaining specific interplay factors. We then turn to the other three perspectives, which we conclude have a specific role to play. The resulting mapping of theories onto interplay factors is presented in Table 2, which can serve as a guide to the current state of theorizing. Finally, we turn to the promise of new theories, and new approaches to the theorizing, to fill the gaps and extend the understanding of the interplay of value creation and value appropriation.

Role and limitations of RBV, KBV, and TCE in explaining interplay factors

In extant literature, the interplay of value creation and value appropriation in alliances is explained primarily by the RBV, KBV, and TCE. Generally, the RBV (taken here

TABLE 2 Representative articles on the main theoretical perspectives for the value creation–value appropriation interplay factors.

Value creation–value appropriation interplay factors	Resource-based and capabilities perspective	Transaction cost perspective	Knowledge-based and learning perspective	Resource dependence theory	Agency theory	Relational view
Learning from general alliance experience	Heimeriks and Duysters (2007); Chang et al. (2008); Robson et al. (2019); Wang et al. (2021)					
Learning from partner-specific alliance experience			Chang et al. (2008); Zacharia et al. (2011); Shakeri and Radfar (2017)			
Relational capabilities	Dyer et al. (2008); Zacharia et al. (2011); Wang and Rajagopalan (2015); Dyer et al. (2018); Bouncken et al. (2020); Seo et al. (2022)					Dyer and Singh (1998); Capaldo and Petruzelli (2011); Zacharia et al. (2011); Dyer et al. (2018)
Behavioural control				Rogan and Greve (2015); Cuervo-Cazurra et al. (2019)		
Communication		Sampson (2007); Hoetker and Mellewigt (2009); Agarwal et al. (2010); Costa e Silva et al. (2012); Ali et al. (2021)				
Conflicts		Yan and Gray (2001); Costa e Silva et al. (2012); Schilke and Lumineau (2018)			Reus and Rottig (2009); Cuervo-Cazurra et al. (2019)	
Formal arrangements		Hoetker and Mellewigt (2009)				
Informal safeguards		Yan and Gray (1994)				Dyer and Singh (1998); Lavie (2006); Dyer et al. (2018)

to include both theorizing about resources and closely related work under the heading of dynamic capabilities) underscores that alliances are a way to increase a firm's pool of critical resources and capabilities (Eisenhardt & Schoonhoven, 1996) and, hence, to develop new products and services. As such, resources and capabilities affect

the value creation potential of an alliance (Park et al., 2004); because the resource increments and the private benefits they enable are prone to differ between partners, this can also be related to conditions for value appropriation. Looking for rational economic solutions to market imperfections, TCE-based explanations see alliances as

organizational hybrids (Hennart, 1988) or a third institutional form (Larsson, 1993) different from market and hierarchy. The emphasis is on how alliances can minimize transaction costs while enabling an optimal mix of autonomous and coordinated adaptation (Williamson, 1991). This adaptation emphasis requires bridging value creation and value appropriation, and thus incorporating interplay factors (Doz, 1996). The KBV (including related learning arguments) stresses that value creation and appropriation in alliances resides in ‘accessing’ rather than ‘acquiring’ knowledge (Grant & Baden-Fuller, 2004), and in spurring inter-partner learning (Das & Kumar, 2007; Doz, 1996). In this view, alliances are important in enabling knowledge application and partner learning, and hence alliance adaptation.

Turning to specific factors, the RBV constitutes the main theoretical perspective in studies of general alliance experience as relates to the interplay of value creation and value appropriation (Chang et al., 2008; Heimeriks & Duysters, 2007; Robson et al., 2019; Wang et al., 2021). Specifically, such general experience is relevant from a resource-based perspective because it allows the relatively rapid accumulation of resources and know-how that have a relatively broad if shallow scope for application to future alliance tasks (Lavie, 2006). In addition, general experience steers alliance resource complementarity (Robson et al., 2019), defined as the degree to which partners are able to supplement each other’s tasks by bringing in unique resources and capabilities (Sarkar et al., 2001). The RBV is also, to some extent, related to relational capabilities, albeit often in conjunction with the relational view to which we return below (Bouncken et al., 2020; Dyer et al., 2008, 2018; Seo et al., 2022; Wang & Rajagopalan, 2015; Zacharia et al., 2011). TCE is compelling to theorize the development of formal arrangements (Hoetker & Mellewigt, 2009). To a lesser extent (for reasons discussed below), TCE has been used in studies of three other interplay factors: conflicts and their resolution (Costa e Silva et al., 2012; Schilke & Lumineau, 2018; Yan & Gray, 2001), informal safeguards (Yan & Gray, 1994), and communication (Agarwal et al., 2010; Ali et al., 2021; Costa e Silva et al., 2012; Hoetker & Mellewigt, 2009; Sampson, 2007). The KBV is connected more directly to the analysis of partner-specific experience, reflecting its emphasis on both the specificity and potential tacitness of this knowledge (Chang et al., 2008; Shakeri & Radfar, 2017; Zacharia et al., 2011). Overall, these three theories form a solid foundation for understanding the interplay of value creation and appropriation from the firm, inter-partner, and alliance levels. Yet there are limitations, which will also point to a role for other theories.

First, the interplay factor *behavioural control* (Jiang & Jiang, 2019) is not directly explained by the three theo-

ries considered so far. This is an important gap given the sensitive role of this factor for both the continuous control of the alliance and its effective adaptation (Doz, 1996; Ring & Van de Ven, 1994; Stouthuysen et al., 2017). Second, although TCE research occasionally touches upon conflicts, informal safeguards (Yan & Gray, 1994), and communication in alliances, TCE explanations for these factors are prone to be indirect and incomplete. Because TCE as applied to alliances is meant to explain the key features of *formal* alliance agreements and arrangements (Hennart, 1988; Williamson, 1991), it is less able to explain the many forms of potential conflicts in an alliance (Demirbag & Mirza, 2000; Ding, 1997). Likewise, TCE gives only an indirect view of the ways in which informal safeguards may encourage adaptability aside from formal arrangements (Apa et al., 2020; Lee & Cavusgil, 2006). As concerns communication, again TCE can shed light on formal channels but less on the contents and processes of conveying information and knowledge.

Although we just pointed out some limitations of the TCE explanation, RBV and KBV are not sufficient theories either to explain these interplay factors. Thus, we turn next to alternative perspectives found in our systematic review.

Other extant theories for interplay factors

Other theories that have lesser but non-negligible prominence in Table 2 (i.e., relational view, resource dependence theory (RDT), and agency theory) have the potential to advance the understanding of interplay factors, especially those that are otherwise under-theorized—namely, behavioural control, conflicts, informal safeguard, and communication. First, through its emphasis on informal mechanisms of control (Dyer & Singh, 1998), the relational view helps explain the use of informal safeguards (Lavie, 2006). For the same reason, the relational view can help explain the form and extent of communication among partners (Dyer, 1997).

Second, RDT has been developed relatively recently in ways that render it helpful in explaining both the direction and the means of the use of power in alliances (Mohr et al., 2016; Robson et al., 2012; Rogan & Greve, 2015). Furthermore, recent work has drawn a fresh perspective on the relative roles of agency theory and RDT (Cuervo-Cazurra et al., 2019), looking at them as complementary (rather than opposing) perspectives in grasping the ‘power relationships’ (Pfeffer & Salancik, 2003) in alliances. In recent developments, a dynamic approach to RDT seeks to explain under what conditions power may be rebalanced among alliance partners (Rogan & Greve, 2015). This makes RDT a potential source of explanation for adaptation through shifting behavioural control.

This may also help explain under what conditions informal safeguards are sufficient. Conversely, agency theory assumes inherently different roles and thus power asymmetry between parties, meaning partners in the case of an alliance (Cuervo-Cazurra et al., 2019). This makes agency theory useful in explaining the conflicts that result from discordant goals among alliance partners (Reus & Rottig, 2009).

Altogether, these three perspectives, especially as recently developed, hold the potential to shed extra light on factors that hitherto received incomplete treatment in the literature on the interplay of value creation and value appropriation. However, these theories are not necessarily complete explanations per se, insofar as they are not specialized to explaining the adaptive processes which interplay enables (Ariño & de la Torre, 1998; Ring & Van de Ven, 1994). Therefore, in the next section we turn to new sources and forms of theory development that would further advance the study of the adaptive interplay in alliances, and thereby of value creation and value appropriation as well.

DIRECTIONS FOR FUTURE RESEARCH

While the structured cyclical framework above conveys existing literature on the interplay of value creation and appropriation in strategic alliances, multiple issues and opportunities for further research arise from our review. Building on others who have argued that the interplay of value creation and value appropriation in alliances is an essential but under-explored research area (Adegbesan & Higgins, 2011; Dyer et al., 2018), we organize our research agenda around two main themes that would further this research: conceptual advances and the crafting of a more dynamic view of alliances.

Conceptual issues and theoretical directions on the interplay between value appropriation and value creation in strategic alliances

First, we note that, as underscored in the Results section, our review found that several factors have complex effects that may either enhance or hamper the creation of value (see, e.g., discussion of trust and familiarity), value appropriation (e.g., isolating mechanisms) and, even more intriguingly, their interplay (e.g., routinized learning, behavioural control, conflict, and formal versus informal mechanisms). Furthermore, each factor may be subject to different contingencies. Thus, research building on our structured framework may elicit distinctions or condi-

tions that help separate the pros and cons of each factor, especially as pertains to interplay and alliance development. This will also require some upgrading of the theoretical apparatus to accelerate the conceptual refinements. Here, we propose several directions for advancing theory.

A first direction is to refine existing theoretical perspectives. We discussed such an instance for the RDT above. As another example, in a specific effort to address both value creation and value appropriation in alliances, Lavie (2006) proposed an extension of the resource-based view. Likewise, Dyer et al. (2018) advanced an extension of their relational view. Although, as we discussed above, none of these suffices to capture the full adaptive interplay of value creation and value appropriation as we explicated it, these examples show that refinements of extant theory can make substantial contributions to the joint understanding of value creation and value appropriation at least. In addition, although our review focused for good reason on dyadic alliances, these theoretical enhancements can provide further insight into more complex alliances or other levels of analysis such as alliance portfolios or alliance networks.

Second, scholars can exploit the potential of theory that is novel for the alliance research domain, but sufficiently able to explain how value creation and value appropriation relate to each other. One example is how Robson et al. (2012) applied self-determination theory to the alliance level, whereas this theory had been used to explain self-motivation in interpersonal relationships before. This theory helps explain, on the one hand, how exerting behavioural control over its partner(s) enhances a firm's control over its actions and makes attachments secure (Patrick et al., 2007). On the other hand, it unveils how differences in cultural values may erect barriers to communication and coordination between the alliance partners that, in turn, delay the growth of partners' shared routines and thus the creation of value by the alliance (Robson et al., 2012).

Another interesting and novel perspective uses cooperative game theory (CGT) and is sometimes referred to as 'value capture theory' (Gans & Ryall, 2017). As applied to various competitive strategy topics, CGT considers value creation and value appropriation as inherently simultaneous questions because the anticipation of value appropriation determines a firm's willingness to contribute to the creation of value with other firms. In a rare application to alliances, Adegbesan and Higgins (2011) used such arguments to theorize about the initial setup of R&D partnerships. CGT, in its current state, is more suitable to explain such initial decisions, but with further development it could become more useful to understand alliance adaptation processes as well.

Yet another emerging perspective about the interplay between value creation and value appropriation in strategic alliances, if less structured as a theory at this point, concerns citizenship behaviour. This is a promising conceptual topic because procedural and distributive justice may trigger various types of citizenship behaviours. In turn, these citizenship behaviours might affect knowledge acquisition and opportunism in an alliance, and thus prospects for further cycles of value creation and appropriation (Bai & Li, 2020).

Towards a more dynamic theory of value creation and value appropriation in strategic alliances

A particularly relevant and promising direction for theory development is to take a more dynamic view. Contemporary trends of accelerated change with digital technologies, together with climate transformations, market oscillations, and intense global competition, render a dynamic perspective even more important when examining such factors as learning and relational capabilities as they operate at different levels. Scholars have acknowledged the importance of a dynamic view for a while. Thus, Hoetker and Mellewigt (2009, p. 1041) argued that alliances are ‘an inherently dynamic process’. They pointed to bi-directional relationships between formal versus relational mechanisms, respectively, and investments in property- and knowledge-based assets, respectively. Notwithstanding that, the literature attempting to develop a dynamic conceptualization of value creation and value appropriation in strategic alliances remains limited. Furthermore, empirical foundations for this are even more fragmented. Nevertheless, we point out a few topical directions and we consider means of theoretical development that can help fulfil this need.

First, in proposing a more dynamic version of their relational view, Dyer et al. (2018, p. 3142) posited that ‘relation-specific assets and knowledge-sharing routines dynamically co-evolve’. As such, future research should explain why greater investments in one of these (relation-specific assets or knowledge-sharing routines) might generate more options for increased investments in the other, thereby increasing the potential for creating value. Additional research might also explore their claim that ‘the greater the proportion of complementary resources that are replicable or replaceable by the partner, the more rapidly complementarity among partners will decrease, thereby leading to diminished value creation’ (Dyer et al., 2018, p. 3151), and whether this may be counteracted via the renewed investments and collaborative adjustments that the interplay factors we identified may enable.

Second, it is specifically worth studying how the pervasive digital transformation affects value creation and value appropriation and their interplay in strategic alliances. In particular, digitalization may transform the functioning of alliance operations (hence, value creation), but also affect transparency between partners (hence, value appropriation), and even more so, means of communication and other interplay factors such as learning. Thus, the question arises of how dynamics unfold in digitally enabled alliances. A specific area where the interplay of value creation and value transformation has yet to be examined is that of platform-based alliances (Zhang et al., 2021).

As regards theory development, applying one extant theory at a time is unlikely to be sufficient in explaining the full range of dynamic interplay of value creation and value appropriation. More dynamic theory may originate through the combination of perspectives. For instance, in developing the relational view more dynamically, Dyer et al. (2018) drew heavily on RBV and TCE. In general, scholars can systematically combine extant theories for this purpose, provided there is sufficient conceptual correspondence. However, we note that fruitful combinations will not be straightforward to develop given the respective propensities of theories to explain certain factors, and more generally certain parts of our phenomenon (i.e., value creation versus value appropriation), as we showed above. We thus expect such theoretical combinations to be especially useful in theorizing about the respective and combined roles of various interplay factors, such a formal versus relational ones (Hoetker & Mellewigt, 2009). Likewise, combinations of theories are especially promising to bridge multiple levels of analysis (Costa e Silva et al., 2012; Zacharia et al., 2011). Bridging mechanisms and bridging levels, in turn, promises to help explicate the feedback and feedforward effects that interplay factors enable. Regarding the process of combining theories, given the respective foundations and factors for value creation and value appropriation in alliances, we encourage researchers to seek creative combinations executed by means of ‘disciplined alignments’ of theories (Weick, 1989), in which successive conceptual steps shape ‘pathways of influence’ (Weick, 1995), retaining sufficient internal consistency and adding explanatory power.

In summary, we described types of creative theoretical work: theoretical deepening, theory transplantation, and theory combination. Each of these has a role to play in furthering the understanding of value creation and value appropriation in alliances, and especially how value creation and value appropriation interplay in a dynamic framework.

Finally, the study of the value creation, value appropriation, and their interplay in strategic alliances could be expanded to encompass sustainability and social

responsibility issues that are increasingly prominent in practice and in research. This would require adopting more of a stakeholder-centred approach. In turn, this would broaden the role and indeed the very concept of factors such as resources, trust, opportunism, information asymmetry, and so on. Furthermore, various interplay factors represented in our framework (e.g., learning, relational capabilities, conflict, or safeguards) may take extra importance in alliances between firms and societal actors (Kivleniec & Quelin, 2012), or among societal actors (van den Oever & Martin, 2019).

CONCLUSION

In summary, our systematic review and the conceptual framework it helped to structure have explicated the respective factors for value creation, value appropriation, and especially the adaptive interplay between them in strategic alliances. Although we showed that some themes remain underdeveloped theoretically, we have pointed out ways forward. We trust that our work will inspire and facilitate further research in this important and growing area.

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SUPPORTING INFORMATION

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

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