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Antecedents of Independent Directors on Joint Venture Boards

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ABSTRACT

The presence of independent directors on corporate boards is often seen as an important means of monitoring to address principal-agent problems and of providing external resources and advice to management. In joint ventures, however, shareholder-management frictions can be lessened by appointing insiders to management and board positions, while access to valuable expertise, resources and networks are provided by the partners themselves. A natural question, then, is why and when do partners appoint independent directors to JV boards? We argue that the appointment of independent directors to joint venture boards is primarily driven by principal-principal conflict considerations, which are unique in the joint venture context compared to conventional, widely-held corporations. Consistent with this argument, we find that the likelihood of appointing independent directors increases when JVs face more exchange hazards due to the competitive overlap between partners and the broader functional scope of the JV. However, given that JVs also have alternative governance mechanisms to mitigate shareholder conflicts, we also find that more complex contractual agreements can potentially substitute for independent directors on JV boards. While relational governance is often highlighted as a key facet of JV governance, we do not find such a substitution effect for this supporting governance mechanism. Overall, our research therefore highlights several interesting domain translation issues when applying existing corporate governance insights to the joint venture setting. Our paper concludes with a call for future research on independent directors serving on JV boards, as joint ventures represent an organizational form that has been neglected in corporate governance research.

Keywords: Independent directors, corporate governance, alliance governance, joint ventures

INTRODUCTION

While there has been very extensive research on independent directors on corporate boards (e.g., Black, Cheffins and Klausner, 2005; Hansmann and Kraakman, 2004; Hermalin and Weisbach, 1999; Rosenstein and Wyatt, 1990), the role of independent directors in other organizational forms having different governance challenges, such as joint ventures (JVs), remains underexplored (Duplat et al., 2020). One of the key governance issues in JVs is the conflict of interest that may arise among shareholders due to the unique ownership structure of the collaboration. JVs are created, owned, and controlled by two or more independent legal entities, each with its own strategic interests. Conflicts caused by misaligned goals and objectives, diverging interests, uncertainty, and opportunistic behavior among partners are common and often lead to disappointing results or premature termination (Park and Ungson, 2001; Makino, Chan, Isobe, and Beamish, 2007). Therefore, a key task of the JV board as a governance mechanism is to manage "principal-principal conflict", that is, to align and balance the interests and actions of the partners (Hewitt, 2005; Singleton, 2017; Ravasi and Zattoni, 2006) and to resolve incipient disputes among the partners (Pisano, 1990). As one practitioner explains: "JV boards often serve as a perpetual negotiating table, a forum for shareholder representatives to expose and resolve misalignments in strategy, financial and risk appetites, products and technology preferences, and financial incentives and returns" (Bamford and Jenkins, 2021: 168).

While independent directors may play a role in addressing these governance challenges, there is little or no systematic research on why and when JV partners appoint this type of directors to their JV boards. Because joint ventures are typically private organizations they are not subject to the same (legal) governance standards regarding the presence of independent directors as corporate firms (Hewitt, 2005; Singleton, 2017). As a result, the mix of inside and independent (i.e., outside) directors varies according to the governance needs of the JV shareholders. Partners typically appoint their own employees as nonexecutive inside directors, and they have some advantages. Insiders have better access to information within the organization (Dutchin, *et al.*, 2010; Harris and Raviv, 2008) which helps to reduce information asymmetries between the parent company and the joint venture (Balakrishnan and Koza, 1993). Insiders

also help to align the strategic intentions of the joint venture with the interests of the parent firm (Bamford and Ernst, 2003; Kumar and Seth, 1998), protect the interests of their parent firms (Hewitt, 2005; Singleton, 2017), and provide advice and counsel when needed. Because of this strong overlap between ownership and management, combined with concentrated ownership, "principal-agent" problems are less of an issue at the board level than in widely held corporations, so independent directors on joint venture boards would be less likely to be used to address this type of agency problem. Independent directors are also less necessary for the provision of complementary resources and networks, another key role of outsiders on corporate boards (e.g., Hillman et al., 2000; Hillman, 2005). This function is primarily fulfilled by the partners themselves. For instance, a primary reason why firms enter into joint ventures is to gain access to new knowledge, to identify and use complementary skills, and to capitalize on the resources provided by the other partner, including its expertise and key resources such as marketing channels, distribution networks and country expertise (Glaister and Buckley, 1996; Grant and Baden-Fuller, 2004). For these reasons, it is not surprising, that independent directors serve less frequently on JV boards compared to traditional corporations (Bamford and Ernst, 2003).[1]

At the same time, inside directors are anticipated to be less effective in managing principal-principal conflicts due to their natural allegiance to the parent company that appointed them (Shishido, 1987). As a result, JV boards composed entirely of insiders run the risk of becoming factionalized groups in which members view themselves and each other primarily as delegates of their respective parent organizations rather than as a unified board with a common mission (Li and Hambrick, 2005). Parent company affiliation can thus easily create a faultline in JV insider-dominated boards (Lau & Murnighan, 1998; Shin and You, 2023). Research shows that such faultlines have predictable negative consequences for team cohesion, trust, communication, cooperation, and decision making (Li and Hambrick, 2005; Tsui & Gutek, 1999; Van Knippenberg & Schippers, 2007; Bamford and Ernst, 2005).

[1] Hard numbers on the number of independent directors on joint venture boards are difficult to find. In their analysis of 272 joint venture boards, Bamford and Bhargava (2020) find that about 20% of joint ventures have at least one independent director. This incidence of independent directors is broadly consistent with our own study, in which 16% of joint ventures have one or more independent directors.

According to practitioners, the appointment of independent directors to the JV board can be an important way to avoid or minimize these negative effects (e.g., Bamford and Ernst, 2005; Bamford and Bhargava, 2020; Baker & McKenzie, 2015; McGovern, Branding and Bamford, 2019). Independent directors in joint ventures are non-affiliated directors who are *jointly* appointed by the partners (Reuer et al., 2014). Because of this joint appointment, their primary loyalty is to the joint venture. As outsiders, they can offer fresh perspectives and neutral judgments. While insider directors may be suspected by directors of other partners of advancing their partner firm's self-interests at the expense of the joint venture and the other shareholders, the neutral status of independent directors helps them prevent and bridge divides among different subgroups. Especially under conditions in which goal conflicts are apt to emerge, these impartial directors can be highly relevant.

In this paper, we explore this idea by examining the effects of three key sources of inter-partner conflict in joint ventures on independent director appointments (Oxley and Sampson, 2004; Kumar and Seth, 1998). We hypothesize that the extent that JV partners compete in common end markets (i.e., high market overlap), broad functional scope of the JV, and environmental uncertainty provide fertile ground for partner conflict during joint venture operations. We argue that under these conditions parent firms are more likely to opt for independent directors. However, joint venture partners can also make use of contractual agreements and relational governance as alternative governance mechanisms to mitigate principal-principal conflicts and support the collaboration (Parkhe, 1993; Poppo and Zenger, 2022). These governance solutions help to clarify responsibilities among partners (Ariño and Reuer, 2007) and foster trust, coordination, and cooperation (Gulati, 1985), thereby potentially reducing the need for independent directors as a separate governance mechanism.

With respect to the corporate governance literature, our study complements the extensive research on the monitoring and advisory roles of independent directors on corporate boards from an agency perspective (Hillman and Dalziel, 2003; Duchin *et al*., 2010; Withers, Hillman, and Canella, 2012). Instead of focusing on the monitoring of "agents", in this paper we shift the focus to the monitoring of the "principals". Similarly, instead of viewing the advisory role of independent directors in terms of

providing expert advice, complementary knowledge, and networks, we highlight the mediation and conflict resolution aspects of this role (Anderson and Reeb, 2004). Prior research in the family firm literature suggests that independent directors can play an important role in in managing "principal-principal" conflicts. However, insight into the conditions under which firms are more likely to appoint independent directors to fulfill this role is still lacking. Moreover, joint ventures are unique in that principal-principal conflicts can arise even in the absence of minority shareholders and even when social-emotional wealth considerations are not a source of goal conflict (Gomez-Mejia et al., 2011; Villalonga et al., 2015).

With respect to the JV and the alliance governance literature, we extend this research by going beyond the widely studied mechanisms of contractual and relational governance and their substitution effects (e.g., Cao and Lumineau, 2015; Poppo and Zenger, 2002). This literature has rarely considered the role of directors, and boards in general, as alternative governance mechanisms to address "principal-principal" conflicts (Reuer et al, 2014; Duplat et al., 2020). Thus, by examining whether contractual governance and relational governance can substitute the need for independent directors, this paper contributes to the nascent research on the interplay of these key governance mechanisms in JVs (e.g., Duplat et al., 2020). By making initial advances in these directions, we hope that our paper encourages new research that bridges the literatures on corporate governance and joint venture governance which, although very extensive, have developed independently from one another. Research to bridge these literatures would be valuable as boards represent one of the most important governance mechanisms of joint ventures, just as joint ventures present a set of unique characteristics and dynamics that can advance theory development and testing in the broader corporate governance literature.

THEORY AND HYPOTHESES

Background theory

Research on board composition and director selection has focused primarily on the distinctions between inside directors and independent directors[2]. Two broad theories dominate this literature. According to agency theory, firms use independent directors and other governance mechanisms to control and align the incentives of their managers (Eisenhardt, 1989). From this perspective, independent directors enable firms to reduce agency problems between principals and management through their neutral position and ability to monitor the behavior of the CEO and other executives (Fama, 1980; Fama and Jensen, 1983; Forbes and Milliken, 1999; Zahra and Pearce, 1989). The second theory, the resource dependence perspective, argues that independent directors provide a critical link to the external environment. As outsiders to the organization, independent directors can bring valuable expertise and important connections to the firm (Arthaud-Day *et al.*, 2006; Beckman *et al.*, 2014; Dalton *et al.*, 1998; Hillman and Dalziel, 2003; Pfeffer, 1972; Pfeffer and Salancik, 2003; Zahra and Pearce, 1989).

While both perspectives generally suggest that independent directors offer advantages to inside directors[3], corporate governance scholarship also points to potential weaknesses of these directors. First, outside directors may be less independent than expected. For example, CEOs may play a role in the selection and appointment of independent directors, raising doubts about their true level of independence (Mace, 1986; Vancil, 1987). In addition, independent directors typically do not have exposure to the day-to-day activities of the firm, which limits their ability to effectively oversee the firm's operations (Petra, 2005). This is particularly problematic when boards face more information asymmetries (Linck *et al*. 2008), which is likely to be the case in R&D-intensive, high-growth firms (Lehn, Patro, and Zhao, 2009; Coles, Daniel, and Naveen, 2008), and in firms operating in 'noisy' operating environments (Demsetz and

[2] Because our research focuses on the conditions under which joint venture partners are more likely to appoint independent directors, we limit this discussion to the monitoring, resource and conflict mediation needs of firms, or the "demand side" of director selection (Withers *et al.*, 2012). We do acknowledge that further research on the "supply side" of the selection process including the reasons, needs and characteristics of directors joining the venture is desirable.

[3] It should be noted that the empirical evidence on the contribution of independent directors to firm performance remains mixed at best (e.g., Baysinger and Butler, 1985; Bhagat and Black, 2002; Daily, Johnson, Ellstrand, and Dalton, 1998; Dahya et al., 2008; Khanna et al., 2014).

Lehn, 1985). As a result, firms are more likely to appoint insiders to their boards under these conditions (Boone *et al.*, 2007; Linck *et al.*, 2008; Raheja, 2005).

While there has been a considerable amount of research on director selection in the corporate setting (Withers, Hillman, and Canella, 2012), there has been little to no systematic empirical research on the role and selection of independent directors on JV boards. This is an intriguing issue given that JVs are not mandated by law to appoint independent directors. Independent directors on JV boards are jointly appointed by the shareholders (i.e., the partner firms) rather than by individual nominating committees as in corporate boards[4]. This makes these outside directors effectively more "independent" than their counterparts on corporate boards. They are also more independent than non-executive inside directors on JV boards (i.e., "parent insiders") who, like executive inside directors (i.e., "JV insiders") involve employees that are appointed by their company. These insiders have a fiduciary duty to act in the best interests of the JV, but they also have a responsibility to protect their parent company' interests (Hewitt, 2005; Singleton, 2017). As inside directors are selected for their expertise but also for their loyalty to the firm (e.g., Hillman, 2005; Lester, Hillman, Zardkoohi and Cannella, 2008), they will tend to prioritize the interests of their employer over those of the joint venture (Golden-Biddle and Rao, 1997; Hillman *et al.*, 2008). Although the potential information costs of independent directors on JV boards, like their counterparts on corporate boards, may be higher with increasing organizational complexity and higher levels of environmental uncertainty, their potential benefits may also be higher because of the increased risk of opportunistic behavior and conflict among JV partners (Luo, 2007; Park and Ungson, 2001; Singleton, 2017). Situations that increase goal divergence and opportunism are likely to lead to greater board polarization, a breakdown in trust and communication among board members, and lower board

[4] To illustrate this point, here are two clauses from two different JV agreements. The JV agreement between BMW and Brilliance (https://contracts.onecle.com/brilliance/bmw.jv.2003.03.27.shtml) states that "the board of directors shall be composed of thirteen (13) Directors of which six (6) shall be appointed by BRILLIANCE, six (6) shall be appointed by BMW, and one (1) Director shall be an independent Director first nominated by BMW and then mutually appointed by the Parties". In the JV between Salesforce and Sunbridge Inc. (https://contracts.onecle.com/salesforce/sunbridge.jv.2000.12.07.shtml) the contract states that "The Board will have six (6) members, three (3) of whom will be nominated by SFDC [Salesforce] (so long as SFDC owns at least 30% of the outstanding voting shares), two (2) of whom will be nominated by SB [Sunbride] (so long as SB owns at least 10% of the outstanding voting shares) and one (1) of whom shall be nominated jointly by SFDC and SB)".

effectiveness. Under these conditions, independent, non-partisan, directors are better positioned to provide independent judgments and to mitigate potential conflicts between parent firms and their direct board representatives. Even though their overall representation on JV boards may be limited, independent directors can be highly influential because JV boards are typically smaller than corporate boards. Their special status as joint appointees of all partners may also give them more influence than other board members, especially if partners appoint them in anticipation of potential challenges. Bamford and Bhargava (2020) find that in 47 percent of the joint ventures with independent directors, they have a "swing vote", i.e., they determine the outcome of a board decision. In addition, about 80 percent of independent directors are appointed to chair the board after serving on the board for some time. The mediating role of independent directors has been studied to some extent in family firms (e.g., Faccio, Lang and Young, 2001; Anderson and Reeb, 2004; Ng and Roberts, 2007; Bettinelli, 2011) as these firms also face more "principal-principal conflicts" than "principal-agent conflicts" (Villalonga et al., 2015) [5]. The limited empirical research in this area suggests that independent directors can play an important role in fostering a positive board climate (Bettinelli, 2011), mediating conflicts between different groups of family shareholders (Bammens et al., 2011), and contributing to board effectiveness and firm performance (Anderson and Reeb, 2004; Bettinelli, 2011).

Given the unique benefits that independent directors can provide to the JV, significant domain translation issues arise when contemplating independent director appointment on corporate boards compared to joint venture boards. While existing corporate governance research claims that the inherent complexities of organizations lead to more insider-dominated boards due to the increased difficulties in monitoring and decision making (e.g., Baysinger and Hoskisson, 1990; Raheja, 2005; Linck et al., 2007), these complexities in joint ventures would call for a higher need of independent director appointment.

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[5] Principal-principal conflicts are also studied in a corporate governance setting. For example, one research stream has focused on public firms in emerging countries, which are characterized by relatively weak legal protections for shareholders (e.g., Peng and Sauerwald, 2013; Kim, Kim, and Lee, 2008; Dharwadkar, George, and Brandes, 2000; Young, Peng, Ahlstrom, Bruton, and Jiang, 2008). Other research using a "principal-principal" perspective includes studies on coalition building in boards around specific strategic decisions such as acquisitions (e.g., Zhang and Greve, 2019).

Under these conditions, partners experience increased challenges of collaboration and the potential for conflict on the board and among the partners at large. The appointment of independent directors can therefore be an important mechanism for mitigating principal-principal conflicts. Even though independent directors on JV boards do have cost-disadvantages compared to insiders when JVs become more complex, we argue that there is a net benefit in preventing deadlock and resolving conflicts despite the additional costs of verification and information processing. We develop these arguments further in our first three hypotheses regarding the impact of three exchange hazards that give rise to conflicts of interest between partners (i.e., high market overlap, broad functional scope, and environmental uncertainty) on independent director selection.

The likelihood of partner firms appointing independent directors to mitigate "principal-principal" conflicts should also be considered in the broader context of other available governance solutions (Aguilera *et al.*, 2008; Rediker and Seth, 1995). A substantial stream of alliance research has focused on the role of contractual and relational governance in alliance performance (Poppo and Zenger, 2002; Gulati, 1995; Cao and Lumineau, 2015). Contractual governance refers to the use of formal agreements that partner firms can use to safeguard against opportunism and conflict (e.g., Parkhe, 1993). These agreements specify, among other things, the goals of the joint venture, the amount and type of resource contributions from each partner, the distribution of future profits, and sanctions for noncompliance, as well as the rights and responsibilities of the JV board and of individual directors. As such, contractual agreements can assuage coordination and cooperation concerns that partners may have (Parkhe, 1993; Reuer and Ariño, 2007). Relational governance is embedded in social relationships rather than formal rules (Poppo and Zenger, 2002). According to this view, governance is based on the trust, shared values, agreed-upon norms, and common goals that exist between partners because of past and expected future working relationships. As such, relational governance can foster cooperation, open communication, and information sharing in the current interfirm collaboration (Gulati, 1995; Currall and Judge, 1995; Dyer and Singh, 1998).

There is a large body of literature suggesting that contractual and relational governance mechanisms can act as substitutes (Poppo and Zenger, 2002). For example, it has been argued that trust between partners and shared relational norms based on prior collaboration, can mitigate opportunism between partners, and thus reduce the need for contractual governance (Gulati, 1995). Conversely, contractual governance in the form of detailed JV agreements, may minimize the need for relational governance by providing guidance and safeguards to partners (Cao and Lumineau, 2015). While much research attention has been paid to the interrelationship between contractual and relational governance (Poppo and Zenger, 2002; Gulati, 1995), the potential impact of these two governance mechanisms on the appointment of independent directors remains an open question. Nevertheless, substitution effects between contractual agreements and/or prior ties and the preference for independent directors are likely.[6] For example, JV partners may agree on more specific contractual arrangements at the outset of their venture to address potential exchange hazards (Parkhe, 1993), thereby reducing conflict potential and the need to appoint independent board members. A higher level of trust resulting from prior cooperation between partners can have a similar effect: it helps to ensure that the partner(s) will refrain from self-serving behavior (Gulati, 1995). In addition, the routines that JV partners have developed in their previous collaborations may help them prevent conflicts or resolve them amicably once they arise (Zollo, Reuer, and Singh, 2002). One might therefore expect to see a lower likelihood that independent directors on JV boards are appointed when contracts are more detailed or when the partners have worked together in the past. We develop these arguments further in our last two hypotheses.

Research hypotheses

Market overlap. Market overlap, or the extent to which JV partners compete in common end markets, is an exchange risk that is unique to JVs because the parent firms remain independent organizations (Oxley and Sampson, 2004; Reuer *et al.*, 2014). Market overlap makes the JV more complex because it increases

[6] To identify true substitution effects, one should also look at the effectiveness of these governance mechanisms (e.g., Poppo and Zenger, 2002). Our argument here focuses on the idea that other governance mechanisms such as formal contracts and trust reduce the perceived need of JV partners to appoint outsiders to their boards.

the likelihood of principal-principal conflicts between JV shareholders. Research shows that JVs that are established between partners with overlapping geographic, customer, or product markets are more prone to instability, especially when the purpose of these JVs is to create and transfer knowledge or to reduce competition (Contractor and Lorange, 1988; Oxley and Sampson, 2004; Yin and Shanley, 2008). In these situations, JV partners are more likely to face a trade-off between cooperative and competitive tendencies (Khanna, Gulati, and Nohria, 1998), because the potential payoffs from competitive behavior are relatively high (Oxley and Sampson, 2004; Kogut, 1988).

Under these conditions JV partners may therefore have several reasons to appoint independent directors. First, independent directors will contribute to a more balanced and harmonious board. Inside directors are likely to experience greater role and loyalty conflicts when interfirm disagreements arise over competing interests. While board members have a formal responsibility to prioritize the interests of the JV over the conflicting interests of individual parent firms (Hewitt, 2005), in practice parent firms will expect their board representatives (i.e., insiders) to act in their best interests (Singleton, 2017: 297; Shishido, 1987). Moreover, rivalry between partners will further reinforce subgroup and antagonistic feelings in the joint venture (Salk and Shenkar, 2001). More specifically, directors representing different partners will perceive each other in terms of "us versus them", which will hinder their ability to find satisfactory solutions when conflicts arise. Independent directors, on the other hand, because of their neutral status, may not only contribute to more harmonious board meetings by discouraging expressions of factional self-interest (Bammens et al., 2011), but also by mediating between the parties and overcoming internal disagreements when they arise. If they have voting rights and can even break ties, they can also prevent decision deadlocks in JV boards.[7]

Second, independent directors are also better positioned to ensure that insiders act in the best interests of the JV when partner firms operate in similar markets. Market overlap creates greater behavioral uncertainty in the actions of the parents, especially because these joint ventures tend to be

[7] Independent directors on JV boards do not necessarily have voting rights, although many do (Zanfanga, Farber, and Bamford, 2020).

more competitive by nature (Krishnan *et al.*, 2006). With overlapping end markets, partner firms are better able to profit from obtained knowledge at the expense of the partner(s) (Branstetter and Sakakibara, 2002). Since inside directors are more likely to act in the best interests of their parent firm when competitive behavior outweighs the benefits of cooperation, the need for independent monitoring among partners increases. Although insiders (even in a non-executive position) may have an information advantage, the need for independent monitoring can be expected to outweigh the associated costs when partners compete in common end markets (e.g., Boone *et al.*, 2007). Under these conditions, JV partners are more likely to appoint independent directors to verify that each partner is acting in the best interest of the JV.

While these arguments call for a higher likelihood of appointing independent directors to the JV board, the need for independent directors is expected to be lower when partners compete in different end-markets. Under these conditions, partners experience less behavioral uncertainty and face a lower risk of opportunistic behavior. This also implies that goal conflicts and frictions between JV partners are less likely. Given the higher monitoring and verification costs associated with independent directors, partner firms are more likely to rely on insider directors under these conditions. Therefore, we propose the following hypothesis:

Hypothesis 1: Market overlap between the JV parent firms is positively related to the likelihood of the parent firms appointing independent directors to the JV board.

JV Functional scope. Another reason for partners to consider independent directors is when the organizational complexity of the joint venture increases due to greater functional scope. Functional scope refers to the number of different functional activities (e.g., R&D, manufacturing, and marketing) that partners undertake during the collaboration (Doz and Hamel, 1998). Corporate governance research suggests that firms with a greater range of activities have higher information needs than firms with limited activity scope (Lehn *et al*., 2005). This leads to larger boards, and to boards with more independent directors (Boone *et al*., 2007). In this case, joint ventures are no different from corporations; yet the greater information needs for joint ventures with broad scope are particularly driven by the increased

knowledge misappropriation concerns that partners face, as opposed to agency costs in widely held corporations. More specifically, in broad-scope JVs, parents have less control over information flows across organizational boundaries (Khanna *et al.*, 1998; Li *et al.*, 2008; Oxley and Sampson, 2004; Teece, 1992) as knowledge gained in one functional area (e.g., manufacturing) is likely to affect other functional areas (e.g., marketing). Multiple points of contact between the parent firms further increase the potential for unintended knowledge transfer (Klijn *et al.*, 2013; Oxley and Sampson, 2004; Khanna *et al.*, 1998; Sampson, 2007).

Growing concerns over knowledge misappropriation and unintended knowledge transfers in broad-scope ventures will therefore increase the need for more independent monitoring. Independent directors can help partners to monitor JV activities in a neutral manner and provide assurances that partners, or their representatives, do not engage in self-seeking behavior. As such, independent directors can be instrumental in fostering the learning process between the partners and making use of the learning opportunities that broad scope collaborations offer (Jiang and Li, 2009) while at the same time minimizing the occurrence of principal-principal conflicts.

Furthermore, greater functional scope enhances the need for private conflict resolution mechanisms in joint ventures (Khanna *et al.*, 1998). Broad scope JVs have greater product market coverage as well as a multiplicity of objectives and functions. This not only enhances project task complexity and the uncertainty of expected returns (Carson *et al.*, 2006), but also increases the difficulty of aligning partners' strategic interests. Under these conditions, independent directors can help parent firms develop cooperative adjustments (Pisano, 1990), and resolve any costly disputes that might occur between the partners before they escalate to the point where they need third-party adjudication.

Given the advantages of independent directors noted earlier, we anticipate that parent firms are more likely to appoint them to JVs with greater functional scope. Alternatively, as knowledge misappropriation and conflicts occur less frequently in narrow scope collaborations (Oxley and Sampson, 2004), JV boards will tend to face lower needs for independent monitoring and conflict resolution

mechanisms. Combined with the information disadvantages of independent directors, one may expect JV partners to appoint predominantly insiders on their boards in these joint ventures. We therefore posit:

> *Hypothesis 2: The functional scope of the joint venture is positively related to the likelihood of the parent firms appointing independent directors to the JV board.*

Environmental uncertainty. Environmental uncertainty refers to the rate of change, unverifiability or variability of the external environment (Luo, 2007). Joint ventures often operate in markets that are characterized by changes in government policies, customer demand, supply conditions and related conditions that are difficult to predict and foresee at the beginning of the joint venture (Reuer *et al.*, 2014). Consequently, Kogut (1988) argues that JV partners' incentives to cooperate are often undermined by environmental uncertainty. For example, greater market volatility reduces the partners' expected risk-adjusted returns from the collaboration (Carson *et al.*, 2006). When JV parents anticipate persistent uncertainty about gains from the collaboration, they tend to behave more opportunistically (Brown, Dev, and Lee, 2000). External uncertainty also limits the partners' ability to verify information, formulate and implement strategic plans (Kumar and Seth, 1998), and deploy and exploit distinctive resources (Keats and Hitt, 1988).

Goal incongruence between JV partners (Beamish and Banks, 1987), shirking and contract violations (Khanna *et al.*, 1998), as well as conflicts (Luo, 2002) are therefore more likely to occur under high environmental uncertainty. The higher risk of opportunism increases the need for independent monitoring to understand whether partners are fulfilling their commitments (Luo, 2007). The monitoring activities performed by independent directors can deter opportunistic intentions and reduce the behavioral uncertainties of JV partners.

In addition to greater monitoring effectiveness, another important contribution that independent directors on JV boards have when the JV operates under environmental uncertainty, is their ability to mediate between conflicting shareholder groups. Greater uncertainty and concerns about opportunism will lead to less trust between JV partners and board members. Consequently, independent directors will be more trusted than board members who are affiliated with one of the partner firms, thereby reducing the

likelihood of conflicts emerging. This also implies that independent directors can take a more impartial stance vis-à-vis insiders when board deadlocks do occur and can help the parties to resolve incipient conflicts in an amicable manner. Thus, in contrast to corporate governance research that suggests that the need for independent directors decreases under high environmental uncertainty due to higher monitoring costs (Boone *et al*., 2007; Linck *et al*., 2008), we expect that JVs operating under environmental uncertainty are more likely to appoint independent directors to JV boards. Conversely, we expect that JVs operating in more stable environments will be more likely to refrain from using these directors due to the lower risk of partner opportunism and conflict. This leads us to our third hypothesis:

Hypothesis 3: Environmental uncertainty is positively related to the likelihood of the parent firms appointing independent directors to the JV board.

While the first three hypotheses address inherent characteristics of joint ventures that can give rise to conflicts and hence the associated benefits of appointing independent directors to JV boards, a second unique aspect of JVs that distinguishes them from public firms is the fact that there are alternative governance instruments that partners can use to address the occurrence of principal-principal problems. These unique JV governance mechanisms are helpful in controlling partners' behavior and aligning their interests. In particular, we argue that these governance mechanisms can potentially substitute for the need to appoint independent directors to JV boards. More specifically, partners can rely on formal contractual agreements that support the JV (e.g., Parke, 1993) as well as relational, or informal, governance mechanisms (e.g., Poppo and Zenger, 2022). In the following hypotheses, we explain how the coordination and control functions of contracts (Schepker, Oh, Martynov and Poppo, 2014; Schilke and Lumineau, 2018) and the trust and routine benefits generated by previous collaborations (Poppo, Zhou, and Zenger, 2008; Zollo *et al.*, 2002) affect the likelihood of appointing independent directors to JV boards.

Contractual complexity. Formal contracts between partner firms are alternative governance mechanisms that are unique to joint ventures and other forms of strategic alliances. Formal contracts vary in complexity (Parkhe, 1993; Reuer and Ariño, 2007). The more complex a contract, the more likely the

partners have defined roles and responsibilities at the outset of the collaboration, as well as procedures for monitoring, penalties for non-compliance, and specific processes for dispute resolution (Luo, 2002; Poppo and Zenger, 2002). Complex contracts are particularly appropriate when the likelihood of principal-principal conflict increases because of the difficulties in measuring performance and uncertainties arising from rapidly changing markets, technologies, and other unanticipated changes (Poppo and Zenger, 2002). In this case, detailed contracts provide more certainty about the behavior of the other partner(s) and promote continuity of exchange (Parkhe, 1993; Reuer and Ariño, 2007; Schepker, Oh, and Martynov, 2014). More detailed contracts can also reduce potential goal conflicts between JV partners. When contractual provisions are more detailed and precise, partners are better able to understand the structure, management, and organization of the JV. Thus, a detailed contractual agreement not only prevents and mitigates potential goal conflicts between partners, but also helps resolve these conflicts when they arise. Given these potential benefits of contractual governance in mitigating opportunistic behavior among partners and reducing conflict potential, more complex contracts will reduce the need for, and the added value of, independent directors on JV boards. We therefore hypothesize:

> *Hypothesis 4: Contractual detail of JV agreements is negatively related to the likelihood of the parent firms appointing independent directors to the JV board.*

Prior ties. The principal-principal conflicts that can plague joint ventures and other types of alliances, can also be mitigated by relational norms and values such as the development of trust and cooperation between partners. Under these conditions, the enforcement of commitments, promises and expectations occurs through social processes rather than through formal contracts (Poppo and Zenger, 2002). Social norms are fostered by a shared history. Research on alliance governance shows that the likelihood of behavioral uncertainty and conflict between partners is lower when collaborating parties have worked together (Dekker and den Abbeele, 2010; Gulati, 1995). When partners share a history of collaboration, they have a deeper understanding of the goals and behaviors of their counterparts (Parkhe, 1993; Ring and van de Ven, 1992). As a result, trust between the partners reduces behavioral uncertainty and mutual suspicion (Bercovitz and Tyler, 2014).

Prior relationships also help firms to develop routines that facilitate communication between JV shareholders and promote the development of problem-solving procedures (Zollo *et al.*, 2002). Finally, when partners have collaborated in the past, there is a stronger expectation of future interactions and economic benefits (i.e., a "shadow of the future" takes hold). This expectation fosters continuity and adaptation (Poppo, Zhou, and Ryu, 2008). Prior ties induce cooperation because the possibility of terminating relationships can serve as a self-reinforcing sanction (Telser, 1980). These arguments suggest that prior ties, or a history of collaboration between partner firms, may reduce the need for independent directors. Because prior ties reduce behavioral uncertainty, they also reduce the need for independent monitoring by outsiders. They reduce goal conflicts between partners, and even when conflicts do arise, partners are more likely to have established routines that guide them toward a resolution. Finally, the presence of trust and the "shadow of the future" provide strong incentives for partners to resolve conflicts in an amicable manner. Thus, the reduced uncertainty and goal conflicts generated by prior ties reduce the need for independent directors on JV boards. We therefore posit that:

Hypothesis 5: Prior ties between JV partners are negatively related to the likelihood of the parent firms appointing independent directors to the JV board.

RESEARCH METHODS

Sample and Data

We collected data on joint venture governance through a self-administered survey. Given the unavailability of data on alliances and their governance mechanisms in secondary data sources, this is a widely used research strategy in this literature (e.g., Kumar, Seth, and Anderson, 1993; White and Lui, 2005; Schreiner, Kale, and Corsten, 2009). To construct an initial target sample, we used Thomson Reuters' Security Data Corporation (SDC) database and Bureau van Dijk's Zephyr database to identify executives from European firms that had established joint ventures. Both databases have been used extensively in previous alliance governance research (Ariño, 2003; Colombo *et al.*, 2016). The combined initial sampling frame amounted to a total of 2,215 JVs established in the period between 2008 and 2014. These JVs were established in 126 different countries and involved firms from 135 different nations.

To identify a group of appropriate senior executives involved in the target sample's joint ventures, we used information from the databases in combination with internet searches of parent companies and joint ventures. If contacted executives were unable to respond, we asked them to identify a key informant within their company or joint venture. To minimize recall bias, we asked respondents to complete the survey for the joint venture with which they were most familiar. Consistent with previous research in this area (e.g., Campbell, 1955; Kumar, Stern, and Anderson, 1993; Kumar and Seth, 1998; Schreiner, Kale, and Corsten, 2009; White and Lui, 2005), we used a single key informant to collect primary data on joint ventures. While there are merits of obtaining multiple respondents for each joint venture, the small size of these firms, their staff turnover, and the difficulty of identifying knowledgeable respondents make such a process practically infeasible. To alleviate some of the drawbacks associated with the single respondent approach, we followed Campbell (1955) and added several items to the survey to construct a profile for each respondent. This allowed us to check responses against JV-specific competence indicators. Among our final respondents, 67% had managed the joint venture, 41% had evaluated the performance of the JV, and 25% had been involved in the negotiation process. Overall, 89% of the respondents were responsible for at least one of these three activities. The remaining respondents were responsible for overseeing the operations of the joint venture.

To enhance the response rate, we relied on Dillman's (1978) method of survey development. We also used Sauermann and Roach's (2013) approach for online data collection by personalizing emails, changing the wording of reminders throughout the survey life cycle, and contacting respondents during work hours. We distributed a total number of 961 questionnaires of which 131 were returned. The survey had a response rate of 13.6%. After discarding incomplete responses, our final sample consisted of 114 JVs. Our response rate, which is comparable to other JV studies (Kale, Dyer, and Singh, 2002; Zollo *et al.*, 2002), can be attributed to our data collection efforts (Dillman, 1978; Fan and Yan, 2010).

We conducted several tests to examine the quality of the data and the generalizability of our results. First, we conducted a test of independence to compare the JVs that we identified in the initial sampling frame with the final set of observations. We observed a similar sectoral distribution (i.e., χ^2 =

1.08, n.s.), indicating no significant difference. We also conducted a second test of independence on the sectoral distribution of transactions by comparing early and late respondents, assuming that late respondents are more comparable to non-respondents than early respondents are to non-respondents (i.e., $\chi^2 = 9.61$, n.s.) (Armstrong and Overton, 1977). Finally, we examined whether there were any differences between early and late respondents for all our theoretical variables. We found no evidence that our data were subject to response bias.

Despite our care in developing the survey to minimize contamination effects, and the fact that all our theoretical variables are semi-objective, we decided to conduct post-hoc analyses to determine whether our data were subject to common method bias. First, we used Harman's (1969) one-factor technique to investigate whether there was a significant amount of common variance in our data (Merrifield and Harman, 1969). An exploratory factor analysis revealed nine factors using the eigenvalue-greater-than-one criterion, and 15.62% of the variance could be attributed to a single factor. Second, we performed a general factor covariance test by introducing the first unrotated factor as a control in the multiple regression models (Podsakoff *et al.*, 2003). The inclusion of this factor did not significantly affect our model estimates.

We also tested the adequacy of our sample by examining whether it is sufficient for the risk β of a Type II error (i.e., falsely accepting the null) to be equal to the commonly accepted five-percent risk of α of a Type I error (i.e., falsely rejecting the null) (Cohen, 1988). Our sample size of 114 has a 2.3% risk of an α of a Type I error, which is well below the 5% threshold. Finally, to interpret the causal effects of our hypothesized variables, it is useful to quantify the degree of robustness of the inferences in our study (e.g., Busenbark, et al., 2022). We therefore examined how much bias in our regression estimates would be required to invalidate the inferences made in the study with respect to the replacement data. To invalidate our causal inferences, we would need to replace approximately 23.2% to 51.9% of our joint ventures with no effect responses.

Variables and Measures

JV Independent director appointment. To capture our dependent variable, the likelihood of independent director appointments to the JV board, we asked respondents how many independent directors were jointly appointed by the parent companies and served on the JV board at the time of its formation. To estimate the likelihood of independent directors being selected, we created a dummy variable. This variable took the value of "1" if an outsider was appointed to the JV board, and a "0" if otherwise. For robustness tests, we used the number of independent directors on the JV board at the time of joint venture formation.

Independent variables.

Market overlap. Our first hypothesis examines the extent to which JV partners' market overlap affects the likelihood of independent directors being appointed to JV boards. To construct a measure of market overlap, we asked respondents to rate the degree to which the parent firms are similar in terms of i) the products and services that they offer; ii) the geographic markets they serve; and iii) the customer segments they serve (e.g., Oxley and Sampson, 2004; Reuer *et al.*, 2014). We conducted several tests to assess the internal validity of our measure. First, we tested the Cronbach's alpha for a summed measure, and the obtained value of 0.70 is above the threshold (Hair *et al.*, 1998). We also conducted an exploratory factor analysis to assess the unidimensionality of this construct. All items loaded on a single factor that explained 60.2% of the variance. Market overlap was measured as a multiplicative measure of the three individual market overlap items, and in robustness analyses below we also considered other measures including a summative measure. Given the high skewness of this variable, we performed a log-transformation of the measure.

JV functional scope. Our second hypothesis predicts that the likelihood of independent director appointments will be higher as the number of functional activities undertaken by the JV increases (i.e., broad scope JVs). We draw on prior alliance governance research to construct a measure of scope that characterizes the functional, or vertical, dimension of the scope of collaboration (Kalaignanam, Shankar, and Varadarajan, 2007; Li *et al.*, 2012; Oxley and Sampson, 2004) We asked respondents to indicate

which functional activities were performed in the joint venture, namely i) “operations”, ii) “outbound logistics”, iii) “marketing and sales”, iv) “service”, v) “logistics”, vi) “human resource management”, vii) “technology development”, and viii) “infrastructure” (i.e., “government affairs, quality management, general management, planning, finance, and legal affairs”). Our measure of JV scope represents the total number of activities performed by the JV. To assess the unidimensionality of our construct, we conducted an exploratory factor analysis and found that all items loaded on a single factor that explained 87.3% of the variance.

Environmental uncertainty. Our third hypothesis suggests that higher levels of environmental uncertainty will increase the likelihood of independent director appointments to JV boards. We followed Kumar and Seth (1998) in constructing a measure for environmental uncertainty. We asked respondents to rate the extent to which each of the following external environmental factors were predictable: i) “technological trends”; ii) “competitive culture”; iii) “raw material and equipment supply”; iv) “customer demand”; and v) “government policies and regulations”. To weight each factor, we asked respondents in a separate question to allocate a total of 100 points to these five factors based on how important they are to the ultimate success of the joint venture (i.e., w_i , i = 1–5). Each of these five-point Likert-scale items was then reverse coded (i.e., “unpredictability”) and were multiplied by the weight given by the respondent. The measure of environmental uncertainty is as follows:

(1) Environmental uncertainty = $\frac{1}{100}\sum_{i=1}^{5} w_i, u_i$

Contractual complexity. The fourth hypothesis predicts a negative relationship between contractual complexity and the likelihood of independent director appointments. To measure contractual complexity, we relied on Parkhe (1993). We asked respondents to indicate which of eight types of contractual provisions were specified by the parents in their contracts: i) “systematic written report of all relevant transactions”; ii) “immediate written notice of any divergence from the agreement”; iii) “the right to investigate and audit all relevant records through the use of a CPA firm”; iv) “label some information as proprietary and as subject to confidentiality clauses of the contract”; v) “barring use of proprietary

information even after termination of agreement"; vi) "ability to terminate the agreement"; (vii) "arbitration clauses"; and viii) "provisions for lawsuits". We ranked these provisions in terms of stringency to calculate a weighted measure of contractual complexity.

(2) Contractual complexity = $\frac{1}{36}\sum_{i=1}^{8} D_i$, where D_i equals i if the ith provision was instituted, and zero otherwise (Parkhe, 1993). Thus, D_i equals one if the first provision was instituted, zero otherwise; two if the second provision was instituted, zero otherwise; and so forth.

Prior ties. Our final hypothesis predicts a negative relationship between collaboration history, more specifically prior ties, and the likelihood of independent director appointments. For this measure, we asked the respondents how many collaborations they had undertaken with the current JV partner(s) prior to the formation of the focal JV (Gulati, 1995). Given the positive skewness of this measure, we performed a logarithmic transformation by taking the log of one plus the number of prior ties.

Control variables. We included several controls in the models to account for factors that may be related to the likelihood of having independent directors on JV boards and to our theoretical variables. We included two controls related to the activity of the JV's boards of directors and their composition: meeting frequency and board size. The frequency of board meetings affects an (independent) director's ability to engage in monitoring and to resolve potential conflicts (Vafeas, 1999). Specifically, we asked respondents how often the JV board met per year (i.e., *Number of board meetings)*. We also controlled for board size (excluding independent directors) because larger boards tend to be more engaged in monitoring and other activities (Boone *et al.*, 2007; Coles *et al.*, 2008; Raheja, 2005). We obtained a measure for board size by asking respondents how many executive JV insiders and non-executive parent insiders served on the JV board. Given significant skewness, we log-transformed the measure (i.e., *JV board size*).

Our second set of controls focus on the partner firms involved in the JV. First, we controlled for whether the JV was dyadic or involved three or more partners (i.e., *Multiple partners*), on the assumption that multi-partner joint ventures tend to have greater differences between parents' strategic interests, more inter-party conflict, and more coordination difficulties (Gong *et al.*, 2007; Luo and Park, 2004). Our

"Multiple partners" variable equals "1" in cases where the JV had more than 2 partners, and "0" otherwise. We also include a measure that captures the asymmetry between ownership stakes, i.e., the extent to which the equity of the joint venture is unequally distributed between the partners. The expectation is that independent directors can serve as a potential tie-breaking vote when ownership stakes are more evenly distributed[8]. To calculate this variable (i.e., *Equity distribution*) we subtracted the lowest equity stake held by a JV partner from the highest equity stake.

The third set of control variables focus on the joint venture itself. First, we controlled for the size of the JV given that potential candidates for an independent director position may prioritize larger, more prestigious board opportunities (e.g., Masulis and Mobb, 2014; Knyazeva et al., 2013). Larger size can also affect the organizational complexity of the joint venture (Linck *et al.*, 2008), which can lead to greater behavioral uncertainty and more principal-principal conflict, so we controlled for JV size. Given significant skewness, we used a logarithmic transformation of this variable (i.e., *JV size*). We also controlled for the joint venture's age given that partners might have developed routines and experience simplifying the process of resolving conflict. We used the log number of years between the when the survey was distributed and when the collaboration was formed (i.e., *JV age*). Finally, corporate governance research has suggested that the pool of qualified directors may be limited, especially in local geographic areas (Masulis and Mobbs, 2014; Knyazeva et al., 2013). To control for these supply-related issue, we adopted a dummy variable for whether the JV was local (i.e., domestic) or international. For those cases that the IJV was international we allocated a score of '1'; if the JV was domestic, we gave it a value of '0' (i.e., *International Joint Venture*). Finally, we controlled for year and industry fixed effects.

RESULTS

Table 1 presents descriptive statistics and a correlation matrix for all variables in the regression models. Approximately, 15.6% of the JVs in our sample had at least one independent director appointed to their JV boards. This finding is consistent with our assumption and the general observations of practitioners

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[8] We are grateful for this comment from one of the anonymous reviewers.

(Bamford and Bhargava, 2020) that independent directors are less likely to be appointed to JV boards than insiders. However, as expected, independent directors are more likely to be found on the largest joint venture boards. We also obtained the variance inflation factor (VIF) scores for our variables in the regression analyses. The highest VIF score we found was 2.18; the average VIF score was 1.53, suggesting that our results are not affected by multicollinearity.

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Insert Table 1 about here

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Table 2 shows the results of our logistic regression analyses of the likelihood of independent directors being appointed to JV boards. Model I is the baseline model consisting only of control variables. The three antecedents related to JV complexity and environmental uncertainty, which are expected to increase the need for independent directors, are included in Model II. The JV-specific governance mechanisms that are expected to reduce the need for independent directors are included in Model III. Finally, Model IV represents the full model containing all theoretical variables. First, the positive and significant coefficient estimates for market overlap provide support for our first hypothesis ($p<0.10$ and $p<0.05$ in Models II and IV respectively). The results in Models II and IV show that our second hypothesis on JV scope is also supported. Specifically, the results show a positive and significant coefficient estimate for JV scope in Models II and IV ($p<0.05$ in Model II and $p < 0.001$ in Model IV). Finally, we find that environmental uncertainty negatively affects the likelihood of having independent directors on the JV board ($p<0.05$ and $p< 0.001$ in Models II and IV, respectively). This result is opposite to what we predicted in Hypothesis 3. Consistent with our prediction in Hypothesis 4, we find a negative and significant coefficient estimate for contractual complexity in Models III and IV, indicating a substitution effect as hypothesized ($p<0.05$ and $p<0.001$ respectively). Our final hypothesis is rejected, given the insignificant coefficient estimate for prior ties in Models III and IV.

We performed marginal effect analyses to determine the change in likelihood of independent director appointment for a given level of our independent variable by holding the other covariates constant. Appendix A shows the margins plots for each hypothesis with a significant effect. For market

overlap, there is only a 11.2% probability that independent directors are appointed at low levels of market overlap. However, there is a 30.4% probability of having at least one independent director who serves on the board when the market overlap between the JV partners is high. For single activity JVs, there is a 5.8% probability that an independent director serves on the board. However, for broad scope JVs, the probability of having at least one independent director is 44.1%. In terms of environmental uncertainty, contrary to our prediction, there is a 51.7% probability that an independent director will be on the JV board when environmental uncertainty is low. This is reduced to a probability of 0.01% when environmental uncertainty is high. Finally, when level of contractual complexity is low, there is a 61.4% probability of an independent director will be appointed to the JV board. When contractual complexity is high, the probability of an independent director being appointed to the board is 2.9%.

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Insert Table 2 about here

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Robustness and Post-hoc Analyses

We conducted several additional analyses to examine the robustness of our results. First, we substituted our dummy variable for the dependent variable with a count measure of the number of independent directors serving on JV boards. Table 3 presents the results of the Poisson regression analyses on the determinants of the number of independent directors. To determine the appropriateness of using Poisson regression, we tested for overdispersion using post-estimation goodness of fit, and there was no indication of overdispersion (χ^2 = 38.72, n.s.)[9]. Our hypothesized variables are jointly significant and add to the explanatory variance of the models (i.e., χ^2 = 51.99, $p<0.001$). Furthermore, the results presented in Table 3 provide additional support for our main findings.

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Insert Table 3 about here

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[9] To test for overdispersion, we conducted two separate tests (Cameron and Trivedi, 1990). First, we created two new variables based on the actual and fitted variables from the Poisson model: $Z_i = [(Y_i - \mu_i)^2 - Y_i)/\sqrt{2}\mu_i)$ and $W_i = g(\mu_i)/(\sqrt{2}\mu_i)$, where $g(\mu_i)$ can be specified as either μ_i *or* μ_i^2. In the present case, Y_i = the actual number of total independent directors, and μ_i is the predicted number of JV outsiders. We then regressed W_i on Z_i. The significant *t*-value led us to reject the null hypothesis that the variance in the response function Y_i equals its mean. Thus, there appears to be no overdispersion and Poisson models are the most appropriate way to analyze the data.

We also examined the robustness of our results to alternative measurement approaches for our theoretical variables. First, we calculated a summative measure of market overlap rather than the multiplicative measure featured in our tables that assumes that overlap in one area (e.g., geographic markets) will magnify the competition that emanates from another area (e.g., customer segments). As a second alternative measurement approach, we also created a factor score that weights each of the individual market overlap items according to its relevance to the underlying market overlap factor. To construct this measure, we used the regression post-estimation option of the principal factor analysis to predict the scoring coefficients (Acock, 2013). Both alternative measures of market overlap yielded similar, significant results, suggesting that our main finding is robust.

We also measured the vertical, or functional, scope measure in alternative ways. First, we followed Oxley and Sampson (2004) and sampled only R&D JVs. We then created a new measure of scope coded "1" if any other activity than R&D was undertaken, or a "0" if R&D was the only activity of the JV. The results showed a similar positive effect for this alternative measure ($p<0.01$). Second, we created a factor weighted score for scope where each item was weighted according to its importance for the concept being measured. The regression results showed a similar positive effect for our alternative measure of scope ($p<0.05$), indicating that our main findings are robust.

In addition, we tested the robustness of the results for our measure of contractual complexity by replacing it with several alternative measures. First, we created an unweighted measure of contractual complexity by simply summing the eight different provisions. Second, we created a new construct for contractual complexity that incorporates the proposal to exclude arbitration-related provisions (Malhotra and Lumineau, 2011). Both alternative measures showed comparable effects as our main results (both $p<0.01$). We also explored alternative measures of prior ties by using a count measure for the number of prior collaborative partners have formed. This alternative measure also did not yield significant results.

Finally, we explored whether independent directors in our sample actually play an important role in reducing potential conflicts on JV boards. Although the impact of independent directors on board process and effectiveness is outside the scope of our study, it supports our contention that JV partners

appoint independent directors to manage principal-principal conflicts. We explored this idea by regressing the presence of an independent director at the start of the JV on the likelihood of reported board conflicts. Consistent with the idea that independent directors help create more harmonious boards and prevent conflicts, we find a negative effect of independent directors on board conflicts (results available upon request).

DISCUSSION

Contributions and Implications

In this paper we have argued that aligning shareholder interests is a key challenge in JV board governance, often more important than managing "principal-agent" conflicts or providing complementary resources as in corporate governance (Hambrick *et al*., 2008). This theoretical argument has important implications for the role of the JV board and the use of independent directors. Joint venture partners typically manage shareholder-management relations not by appointing independent directors to the board, but by appointing their employees in management and board positions (e.g., D'Costa, et al., 2021). Resource provision (i.e., transfer of knowledge, expertise, and network access), another important board function that is often performed by independent directors on corporate boards, is most often provided by the partners themselves in the joint venture. Thus, while independent directors are the cornerstone of corporate governance, they are comparatively less common in joint ventures (Bamford, Ernst and Fubini, 2004).

Although independent directors in joint ventures are arguably not as valuable as monitors of management, or as providers of external resources as their counterparts on conventional boards, we suggest that they can still play an important role as intermediaries, mediators, and independent monitors in managing "principal-principal" conflicts. These conflicts are more likely to arise in settings characterized by high exchange hazards where partner conflicts are likely to emerge and be significant (e.g., high market overlap which increases competitive tendencies between partners, broad functional scope which increases risks of knowledge misappropriation). Each of these situations requires mechanisms to control partner opportunism and balance partner interests as well as ways to build trust

and harmony among JV directors. The board is a key governance mechanism to minimize the risk of unproductive conflict. However, as we claim JV boards composed entirely of insiders might not be adequately equipped to fulfill this role. Inside directors often find themselves in positions wherein the interests of their parent companies and the joint venture collide because they owe allegiance to both organizations (Shishido, 1987). Due to their strong affiliation with their parent organization, inside directors tend to be biased and partisan, or will be perceived to be so, which makes them less credible in performing mediation and independent monitoring tasks (Hewitt, 2005; Singleton, 2017).

Overall, our results support this claim for two well-known and critical exchange hazards, i.e., market overlap and functional scope. For the external exchange hazard, i.e., environmental uncertainty, we find the opposite effect: environmental uncertainty is negatively related to the likelihood of appointing independent directors. While this finding contradicts our theoretical argument, interestingly it is consistent with other research on corporate boards. Boone *et al.,* (2007) states that when firms operate in complex "noisy" external environments, insider-dominated boards are preferred due to the increased speed of decision making that may be necessary under such conditions (e.g., Boone et al., 2007). Thus, it might be that JV partners view independent directors as an effective mechanism to manage potential frictions caused by internal, organizational complexity, but not when they face high environmental uncertainty. One possible explanation for this finding is that under conditions of high uncertainty, the monitoring costs and verification costs of independent directors may simply be considered too high by the JV partners. It may also be too time-consuming to involve independent directors in decision making, because these conditions require boards to act quickly (Judge and Miller, 1991). Given that our theoretical arguments have focused on some of the advantages of independent directors in staving off and addressing conflicts in joint ventures, future work is needed on some of the potential drawbacks of independent directors such as these possibilities.

In addition to examining the extent to which certain exchange hazards are sources of conflict that increase the likelihood of independent director appointments, we also examined whether contractual and relational governance substitute for the need to appoint independent directors to JV boards. An extensive

literature has considered contractual and relational governance as alternative governance mechanisms to control for partner opportunism. Consistent with the assumption that JV practitioners seek to design optimal governance solutions (Poppo and Zenger, 2002; Williamson, 1991), we have therefore argued that both contractual complexity and prior ties reduce the need for independent directors, as these alternative governance mechanisms may be perceived by parent firms as effective mechanisms to curb opportunism and to mitigate conflict. We find support for this idea for contractual complexity; however, our empirical results do not support our theorizing for relational governance. Thus, JV partners appear to view complex contracts as an effective solution to curb opportunism and other exchange hazards, thereby reducing the need for independent directors. A history of cooperation, our measure of relational governance, does not have this same effect. This suggests that JV partners select independent directors based on organizational considerations and contractual provisions, regardless of any prior collaboration and their history of working together. Future research might delve into the nature of prior interactions and unpack this variable by developing more fine-grained measures of firms' trust, routines, and expectations for future collaboration to consider if these mechanisms shaping the potential for conflict matter for board composition.

Overall, the results of our study highlight the potential role of independent directors as mediators and as independent arbitrators in managing "principal-principal" conflicts in joint ventures. Compared to the more traditional "monitoring of management" role and the "providing resources" role of independent directors on conventional boards (e.g., Forbes and Milliken, 1999; Hillman and Dalziel, 2003), these functions have received little to no research attention. If anything, independent directors are seen as having a negative impact on board harmony and cohesiveness in widely-held corporations (Forbes and Milliken, 1999), although some studies on family firm boards suggest the opposite (Bettinelli, 2011). The positive role of independent directors on joint venture boards in fostering cohesive and effective boards is also strongly reflected in writings by JV practitioners (e.g., Bamford and Ernst, 2005; Baker & McKenzie, 2015; McGovern, Branding and Bamford, 2019) and confirmed by professionals working in the field. As one CEO who served as an (independent) director in several joint ventures stated: "An independent

director can unite the parties and have a positive impact on board harmony. Many directors find it difficult to think in the interest of the joint venture rather than the shareholder. I am quite sure that in several joint ventures that I have observed, the joint venture would not have collapsed if there had been an independent director on the board"[10].

Limitations and Future Research Directions

Given that our paper is a first step in exploring the role of independent directors in joint ventures, it also has several limitations that provide a number of interesting avenues for future research. First, our paper has focused on the antecedents of independent director appointments rather than their effects on board processes, board effectiveness and JV performance. Firms are expected to choose the most optimal governance structure in terms of perceived costs and benefits (Poppo and Zenger, 2002; Williamson; 1991). While our post-hoc analyses suggest that independent directors have a positive effect on JV board harmony, the extent to which they also lead to more effective boards deserves further research attention. Corporate governance research suggests that the impact of independent directors on board effectiveness and firm performance may be constrained by factors such as their time and the information processing demands of other positions (Masulis and Zhang, 2018; Masulis and Mobbs, 2014; Khanna et al., 2014). Future research is encouraged to take these constraints into account when examining the roles and value added of independent directors. It would be valuable to not only consider the functioning of boards and overall joint venture performance, but also intermediate outcomes in interfirm collaborations (e.g., trust, learning, etc.).

Similarly, whether contractual or relational governance is an effective substitute for independent directors remains another open question. Given that formal contractual safeguards are often viewed as incomplete and insufficient, especially in more dynamic environments (Crocker and Reynolds, 1993; Luo, 2005), future research is needed to examine the individual and combined effects of board governance solutions, such as independent directors, along with those of contractual and relational

[10] Personal interview by one of the authors.

governance mechanisms that together shape the three dimensions of governance – incentives, administrative controls, and dispute resolution mechanisms (Williamson, 1991). More fine-grained investigations into disputes and how parties plan for them using internal, structural means as well as third-party adjudication would present a more complete picture of the conflict prevention and mitigation capacity of JVs.

To better understand when and how independent directors contribute to board harmony and board effectiveness, more in-depth research is also needed on how independent directors perform their mediating role and influence decision making. For instance, given that research suggests that independent directors may or may not have voting rights (e.g., Bamford and Bhargava, 2020), it would be interesting to study under which conditions independent directors have more authority in decision making and play key roles in decision-making in boards. Furthermore, qualitative research along these lines could examine whether independent directors help resolve manifest conflicts or engage more proactively in conflict management. Empirical research could also examine whether independent directors are effective in preventing disputes from going to third parties for resolution (e.g., mediation, arbitration, litigation). In addition to research on independent directors, we also need more research on the role of inside directors. For instance, their dual loyalty to the JV and their parent company, opens avenues for research on how inside directors on JV boards deal with role conflicts and work with the independent directors who have been the focus of this study. Some insiders work for the JV itself, and others for the parent firms, and research could be carried out that examines the roles of these different types of directors and their interactions with independent directors.

Second, given the potentially important roles that independent directors can play, more research is needed on the individuals who fulfill these roles and their power and status on the board. In our research we have focused on the question of why joint venture partners appoint independent directors from the perspective of the parent firms' need to address anticipated conflicts. While this "demand side" perspective dominates the current literature (Withers *et al.*, 2012), more focus is needed on the "supply side" of the selection process including the reasons for joining, competencies, and backgrounds of

independent directors[11]. Research shows that director busyness (Masulis and Mobbs, 2014), firm prestige and reputation (Masulis and Mobbs, 2014; Yermack, 2004) and labor market pools (Knyazeva et al., 2014) may play an important role in the quality of independent directors and matching directors to JVs. Furthermore, by examining their human and social capital (Khanna et al., 2014), a better picture can be developed of the informal power that independent directors have on JV boards and how they exercise their role as neutral arbiters.

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TABLE 1
Descriptive Statistics and Correlation Matrix[a]

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Nr. of independent directors	0.156	0.364	1.000												
2. Market overlap	2.953	1.285	0.048	1.000											
3. JV Scope	5.367	2.710	0.054	0.049	1.000										
4. Environmental uncertainty	2.268	0.876	-0.139	-0.089	0.011	1.000									
5. Contractual complexity	21.468	10.927	-0.207	0.012	-0.299	0.359	1.000								
6. Prior ties	0.370	0.645	-0.002	-0.107	-0.070	-0.129	-0.058	1.000							
7. Number of board meetings	4.651	3.044	-0.026	-0.120	-0.206	-0.063	0.122	0.110	1.000						
8. JV board size	5.477	2.853	0.142	-0.022	-0.208	0.128	0.148	0.075	0.177	1.000					
9. Multiple partners	0.193	0.396	0.175	-0.021	-0.148	-0.084	0.026	0.022	0.171	0.082	1.000				
10. Equity distribution	15.039	23.126	0.151	0.205	0.205	0.083	-0.125	0.005	-0.010	-0.111	0.314	1.000			
11. JV size	4.127	1.893	0.129	-0.038	-0.038	0.340	0.279	0.030	0.147	0.490	0.086	-0.100	1.000		
12. JV age	2.056	0.875	0.088	0.166	0.166	0.226	0.042	-0.052	-0.122	-0.064	-0.207	0.007	0.342	1.000	
13. International joint venture	0.835	0.373	0.055	0.076	0.076	-0.004	0.060	-0.085	-0.271	0.083	-0.033	0.069	0.114	0.086	1.000

[a] N=114. Correlations above 0.16 are significant at $p < 0.05$ or higher

TABLE 2

Determinants of the Probability of Independent Director Appointment[a]

	I	II	III	IV
Intercept	-3.171***	-4.126***	-2.968***	-4.269***
	(0.782)	(1.259)	(0.798)	(1.729)
Sector fixed effects[b]	12.570*	21.030***	13.620**	21.410***
International joint venture	-0.516	-0.543	-0.413	0.893
	(0.530)	(0.502)	(0.546)	(1.059)
JV age	0.481†	0.685*	0.479*	0.943**
	(0.265)	(0.309)	(0.252)	(0.368)
JV size	-0.017	-0.049	0.032	0.217
	(0.120)	(0.140)	(0.129)	(0.228)
Equity distribution	0.003	0.001	0.001	-0.052
	(0.070)	(0.086)	(0.070)	(0.009)
Multiple partners	1.059*	1.571**	1.033*	2.044**
	(0.435)	(0.544)	(0.439)	(0.743)
JV board size	0.123†	0.131†	0.125†	0.080
	(0.074)	(0.076)	(0.075)	(0.106)
Number of board meetings	-0.075	-0.120*	-0.066	-0.188*
	(0.051)	(0.050)	(0.052)	(0.080)
Market overlap (H1)	---	0.227†	---	0.404*
		(0.131)		(0.204)
JV scope (H2)	---	0.224*	---	0.508***
		(0.102)		(0.157)
Environmental uncertainty (H3)	---	-0.659*	---	-1.902***
		(0.308)		(0.575)
Contractual complexity (H4)	---	---	-0.027*	-0.159***
			(0.016)	(0.046)
Prior ties (H5)	---	---	-0.075	0.168
			(0.027)	(0.281)
Pseudo R^2	0.238	0.344	0.263	0.537
Log-likelihood	-34.971	-28.740	-33.852	-20.287
χ^2	24.170**	38.060***	26.380**	32.570***
N	114	114	114	114

[a] Robust standard errors appear in parentheses. [b] χ^2 values for joint significance test. † $p < 0.10$; * $p < 0.05$; ** $p<0.01$; *** $p<0.001$.

TABLE 3
Determinants of the Number of Independent Directors on JV Boards[a]

	I	II	III	IV
Intercept	-4.289***	-5.502**	-4.203***	-5.888***
	(1.265)	(1.794)	(1.296)	(1.871)
Sector fixed effects[b]	1560.00***	642.020***	1587.250**	802.780***
International joint venture	-1.915*	-1.299*	-1.663	-0.478
	(0.262)	(0.673)	(0.675)	(0.752)
JV age	0.614*	1.079*	0.633*	1.177*
	(0.262)	(0.470)	(0.259)	(0.488)
JV size	-0.023	-0.180	0.039	0.146
	(0.164)	(0.144)	(0.164)	(0.158)
Equity distribution	0.004	-0.006	0.004	-0.004
	(0.009)	(0.016)	(0.077)	(0.109)
Multiple partners	1.024*	1.379**	1.090*	1.545*
	(0.488)	(0.673)	(0.472)	(0.674)
JV board size	0.118	0.101	0.126	0.044
	(0.110)	(0.090)	(0.116)	(0.117)
Number of board meetings	-0.057	-0.053	-0.045	-0.035
	(0.054)	(0.054)	(0.056)	(0.053)
Market overlap (H1)	---	0.218	---	0.314†
		(0.203)		(0.194)
JV scope (H2)	---	0.297*	---	0.355***
		(0.131)		(0.101)
Environmental uncertainty (H3)	---	-0.684*	---	-1.070**
		(0.397)		(0.357)
Contractual complexity (H4)	---	---	-0.038*	-0.113***
			(0.020)	(0.028)
Prior ties (H5)	---	---	0.203	0.536†
			(0.019)	(0.305)
Log-likelihood	-55.311	-47.416	-53.176	-38.822
χ^2	2176.62***	953.210***	2369.49***	1082.920***
N	114	114	114	114

[a] Robust standard errors appear in parentheses. [b] χ^2 values for joint significance test. † $p < 0.10$; * $p < 0.05$; ** $p<0.01$; *** $p<0.001$.

Appendix A
Margins plot

Figure 1: Margin plot for market overlap

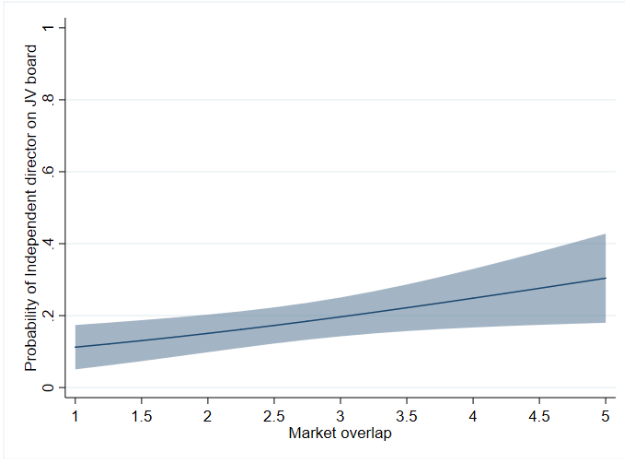

Figure 2: Margin plot for JV scope

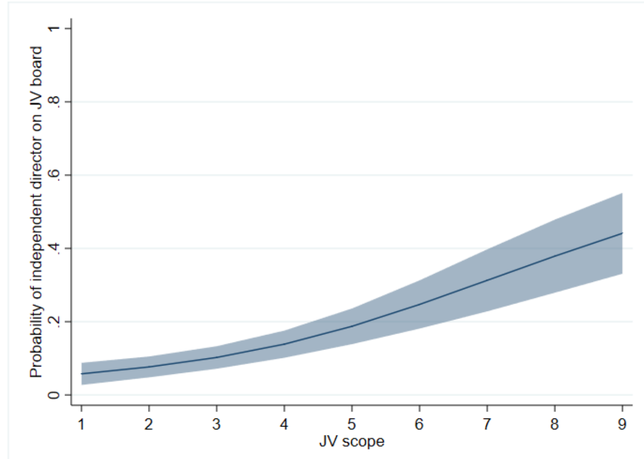

Figure 3: Margin plot for environmental uncertainty

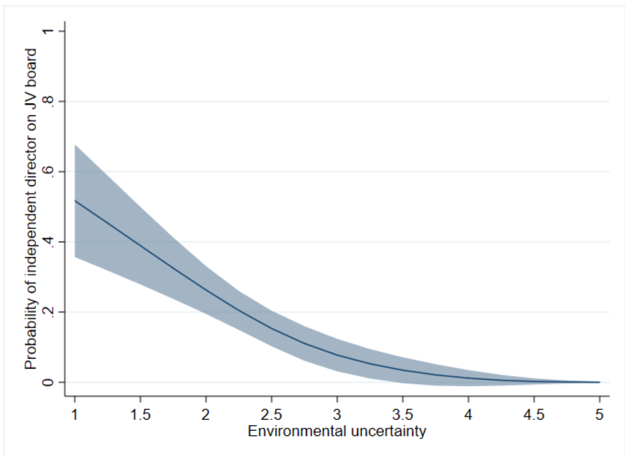

Figure 4: Margin plot for contractual complexity