

BOARD REPRESENTATION IN INTERNATIONAL JOINT VENTURES

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Research summary: *Relatively little attention has been paid to boards in international joint ventures (IJVs), and the composition of these boards in particular. We examine the determinants of foreign partners' representation on IJV boards in order to advance our knowledge of this facet of IJV governance. We argue that a foreign partner's representation on the IJV board is related to its equity contribution. However, we hypothesize that this relationship is moderated by IJV and host country characteristics that affect the importance of the internal and external roles IJV boards serve. These results provide insights into the conditions under which a partner might wish to secure greater board representation for its level of equity, or utilize less board representation than might be suggested by its equity level alone.*

Managerial summary: *The functioning and composition of corporate boards have long been seen as critical to managers and shareholders alike. In contrast, the boards of IJVs have been relatively neglected. We advance our knowledge of this important facet of IJV governance. Specifically, we highlight the importance of two roles (i.e., an internal and external role) that IJV boards and directors fulfill. We find that the importance of these internal and external roles of boards determines whether a foreign partner might wish to secure greater board representation for its level of equity, or utilize less board representation than might be suggested by its equity level alone. Our results provide novel insights that can help managers structure their IJV boards. Copyright © 2016 John Wiley & Sons, Ltd.*

INTRODUCTION

A distinguishing feature of international joint ventures (IJVs) compared to other types of alliances is that they utilize a board of directors that oversees a distinct business entity (Pisano, 1989). The importance of these boards has been acknowledged since the beginning of research on IJVs (e.g.,

Harrigan, 1985; Killing, 1983). As IJV boards act as an important formal mechanism to govern IJVs, how much representation an IJV partner gets on the board becomes an important matter. One factor that has often been assumed to determine the composition of IJV boards is the equity distribution of IJVs (e.g., Kumar and Seth, 1998: 585). However, in practice, we observe that the relationship between equity ownership and board representation in IJVs varies considerably. For example, Synacor Inc. and Maxit Technology Inc. formed an IJV in 2013 in which Synacor Inc. took a 50 percent ownership stake while getting 60 percent of the directors on the IJV board. As another example, the Gas Authority of India Ltd. (GAIL) formed a

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JV in which it took only a 25 percent ownership stake, yet GAIL got 50 percent of the directors on the JV board. The aim of this study is to explain deviations such as these, between allocations of equity and board representation, by investigating the relationship between the ownership distribution and the representation of partners on IJV boards.

Because little research has been conducted on IJV boards as a formal governance mechanism, we do not have a good understanding of parent firms' representation on these boards or their composition more generally. This has been highlighted by Aguilera (2011: 92–93), who suggested that it is “surprising that IJV boards have been understudied for so long” and that “it is essential that scholars and practitioners have a better sense of how these international boards are put together.” Instead, most research has focused on other formal governance mechanisms, such as contractual safeguards (e.g., Gong *et al.*, 2007; Ring and Van De Ven, 1992), or has investigated IJV boards only indirectly, by using broad indicators such as ownership stakes to investigate IJV governance (e.g., Delios and Beamish, 1999; Dhanaraj and Beamish, 2004; Nakamura and Yeung, 1994). While such indirect approaches can help researchers overcome data constraints presented by the lack of secondary information on IJV boards, the premise that equity allocation is closely related to the composition of the IJV board and to partners' control remains largely unexplored and unverified.

By investigating factors that drive foreign IJV partners to take more or less board representation for their share of equity, we address this gap in the literature. To do so, we build on the early empirical work on JV boards (e.g., Kriger, 1988; Kumar and Seth, 1998; Leksell and Lindgren, 1982), which has emphasized the importance of two roles boards serve: their external and internal roles. This parallels the corporative governance literature on boards, which emphasizes the service or advice role that directors fulfill, in addition to their monitoring role (e.g., Hillman and Dalziel, 2003). By differentiating the internal and external roles of the IJV board, we argue that the relationship between a foreign partner's equity and its board representation hinges on the importance of these different roles that directors appointed by the respective partners play.

In line with previous research on corporate governance, we draw from the agency theory and resource dependence theory literatures to identify several contingency factors that affect the

importance of these different roles, and thereby, influence the representation of the foreign partner versus the local partner on an IJV board. We reply on asymmetries that generally exist between the partners in IJVs wherein one partner is local, and therefore, has better knowledge about the local environment and relationships with local stakeholders (Beamish and Banks, 1987; Blodgett, 1991), whereas the other partner is foreign and contributes more industry-specific knowledge and technology to the IJV (e.g., Choi and Beamish, 2013; Hennart, 1988; Lyles and Salk, 1996; Xia, 2011). Based on these asymmetries, we propose three contingency factors (i.e., environmental volatility, competitive overlap, and board monitoring effectiveness) that influence the importance of the internal role of the IJV board differently for the foreign partner and the local partner. To the extent that the internal role of the IJV board takes on greater importance, the foreign partner will seek greater board representation than might be suggested by its equity stake alone. We also argue that the opposite can occur when the external role of the IJV board takes on more importance, leading to greater representation by the local partner. We suggest that this will happen when environmental uncertainty is high or the IJV's environment is not munificent or experiencing significant market growth. Under these conditions, it becomes preferable to rely on more directors from the local partner rather than the foreign partner. Overall, our theoretical framework yields insights that improve our understanding of IJV board representation and begins to explain why we observe deviations between an IJV parent's equity contribution and its board representation.

By linking the literatures on corporate governance and IJVs, we make a number of contributions to the IJV literature in general and the IJV governance literature in particular. First, we examine IJV board design and the determinants of foreign partners' representation on these boards in particular, which advances our knowledge of this important facet of IJV governance. Second, we extend arguments that have been used to explain corporate boards to the IJV domain, while also incorporating factors that are unique to IJVs. This highlights avenues for fruitful cross-fertilization between the corporate governance and IJV literatures by adapting arguments from corporate governance literature to the IJV setting, and in turn, by raising new questions to be studied in corporate governance research. Finally, our findings suggest that the role of boards

is complex and that directors serve functions other than simply providing control, which leads us to caution against simply equating board representation or equity ownership with control.

BACKGROUND LITERATURE

The board of directors of IJVs offers partners an important mechanism to govern their IJVs. IJV boards can serve several functions including monitoring, information gathering, providing advice, appraising managerial performance, facilitating relationships with external stakeholders, and strategic planning (e.g., Kumar and Seth, 1998; Reuer, Klijn, and Lioukas, 2014; Reuer *et al.*, 2011). As a result, how much representation a partner gets on the board becomes an important matter. One factor that is likely to have an impact on board representation is the IJV's ownership distribution (Kumar and Seth, 1998). While the link between IJVs ownership distribution and board representation is intuitive and has been widely assumed in the IJV governance literature, it has not been theoretically developed in depth and has received only limited empirical attention. A key reason behind this is that while early research on joint ventures highlighted the importance of boards as a control and monitoring mechanism (e.g., Harrigan, 1985; Killing, 1983), later research started to model control largely in terms of the relative degree of ownership of the IJV partners (e.g., Mjoen and Tallman, 1997). As a result, attention has shifted away from IJV boards toward studying IJVs' equity distributions. This is reflected in Mjoen and Tallman's (1997: 261) summary of the state of the literature: "many studies on equity and control are based on the assumption that the equity ownership ratio can be used as a proxy for control." The logic used to justify this assumption is that equity ownership enables IJV partners to convert their equity into board representation. For example, Baker and Gompers (2003) argue that board composition is the outcome of a bargaining process where the relative bargaining power of the parties determines their representation on the board. As an IJV partner's relative bargaining power will increase with its equity stake (Mjoen and Tallman, 1997; Yan and Gray, 1994), a higher equity stake should increase an IJV partner's ability to convert its equity into board representation.

As a result of this shift in attention, only a small number of studies explicitly investigate IJV boards

and have considered the relationship between equity and board representation specifically. Even as Kumar and Seth (1998: 585) note that "the proportion of JV board members representing a parent is also likely to be influenced by the relative ownership stakes of the parent," they have explicitly left equity out of consideration as an explanatory variable in their models that predict board composition since they lacked sufficient levels of variation in the equity distributions of the IJVs in their sample. Bai, Tao, and Wu (2004) do provide limited evidence of a relationship between equity and board representation. Where they report descriptive statistics about the Sino-Foreign JVs in their sample, the authors indicate that there is a 0.78 correlation between the foreign partners' equity share and their board representation. Since the equity-board representation relationship was not of theoretical interest to them, the authors do not elaborate on this relationship.

Overall, most of IJV governance literature has equated board representation to providing control for IJV partners, while not incorporating the potential complexity of IJV boards into their studies. This can be a problematic simplification because IJV boards serve multiple functions beyond simply offering control, and such functions are likely to be important when an IJV partner seeks a particular level of board representation given the equity stake it has. Moreover, the ability to secure substantial board representation need not mean that the venture or partner firm is best served by such representation. Hence, the lack of explicit theoretical attention and empirical verification, as well as an insufficient acknowledgement of the complexities of IJV boards, highlights the need to theorize about how and when IJVs' ownership distribution would be linked to IJV board representation more or less strongly.

In the remainder of this study, we emphasize that IJV boards are about more than simply establishing control and that they serve different functions. In addition, we argue that the importance of these functions for the foreign IJV partner will influence the relationship between its equity contribution and board representation. Specifically, we will investigate how four IJV and host country characteristics affect the importance of the different roles board serve, and therefore, moderate the relationship between equity contribution and board representation.

HYPOTHESES DEVELOPMENT

Firms entering into IJVs face challenges from several sources, and their ability to derive value from their IJVs depends on how well they can deal with these challenges. The first source of important challenges the IJV partners face is internal to the IJV and relates to the behavior of the other partner(s) within the collaborative venture. IJV partners are likely to have different goals and incentives (Luo, 2002). While such incongruity of goals is not limited to IJVs, it is often particularly salient in IJVs because of the underlying differences between the partners, which increase the hazards of opportunistic behavior by one of the partners (Parkhe, 1993). In order to deal with these internal behavioral challenges in IJVs, a partner has to gather information on the behavior of the other partner and bear monitoring costs (Ring and Van De Ven, 1992). In addition to such internal challenges related to monitoring and control, IJV partners also have to deal with challenges emanating from the external environment in the IJV's host country. The external environment in the host country imposes pressure on IJVs, and the IJV partners' access to information about the external environment and their ability to connect to local stakeholders to secure resources critical to the success of the IJV will affect the performance of the IJV (e.g., Miller, 1992; Pfeffer and Salancik, 1978). This is particularly a challenge for foreign partners, who generally lack information on the local environment and a collaborative venture's adaptation needs in this environment (e.g., Beamish and Banks, 1987; Blodgett, 1991; Hennart, 1988).

Resource dependence theory and agency theory are two complementary theoretical approaches highlighting that boards can serve different functions, allowing IJV partners to deal with the internal and external challenges we note above. In broad terms, boards serve an internal role and an external role, and several studies have suggested that the relevance of these roles for the IJV partners can have an impact on board design (Björkman, 1995; Kriger, 1988; Kumar and Seth, 1998).

The internal role of the IJV board involves the monitoring of performance and the usage of resources, shaping the strategy of the IJV, resolving conflict, and improving information flows between the partners (e.g., Kumar and Seth, 1998; Leksell and Lindgren, 1982). There is a vast literature on corporate board structures, largely informed by

agency theory, which can also enable the IJV literature to understand the internal role IJV boards serve and how firms might design IJV boards (e.g., Hambrick, Werder, and Zajac, 2008; Lynall, Golden, and Hillman, 2003). As we discuss, the agency theory literature on corporate boards informs us that the desired level of board representation will depend on the internal information needs, and monitoring benefits and costs of the venture and the partners (e.g., Beatty and Zajac, 1994; Boone *et al.*, 2007; Li, 1994; Linck, Netter, and Yang, 2008).

The external role of the IJV board involves scanning the external environment, and forming and managing linkages between the IJV and the external environment (e.g., Kriger, 1988; Kumar and Seth, 1998; Leksell and Lindgren, 1982). Resource dependence theory focuses on managing relationships with important external resource providers (Pfeffer and Salancik, 1978) and offers valuable insights regarding the conditions under which the external role of IJV boards becomes more important. Specifically, resource dependence theory suggests that directors who are able to fulfill the external role of boards become more critical when the external environment imposes more pressures and when forming relationships with external stakeholders and getting access to scarce resources becomes more important (e.g., Boyd, 1990; Pfeffer, 1972).

While the literature on IJV boards assumes a positive relationship between an IJV partner's equity stake and its representation on the IJV board, because equity ownership provides IJV partners with the *ability* and bargaining power to convert their equity into board representation, we argue that this is only part of the story and that the partners' *motivation* to obtain greater representation on the board also plays an important role. Specifically, we propose that IJV partners' incentives to convert their equity ownership into board representation depends on factors that influence the importance of the two different roles that IJV boards serve. Hence, these factors would act as important contingencies that help explain and predict when we observe deviations between an IJV parent's equity contribution and its board representation.

We consider four IJV and host country characteristics that shape the importance of the internal or external role of the board for an IJV partner. Specifically, we first consider a contingency factor (i.e., environmental volatility) that influences

the importance of both the internal and the external roles of the board in the same direction. While this prediction regarding what has been a core factor in prior corporate governance and IJV governance studies (e.g., Boyd, 1995; Halebian and Finkelstein, 1993; Li and Li, 2010; Reuer *et al.*, 2014) is valuable, it does not allow us to tease out the individual effects of the internal and the external roles of the board. Therefore, we further consider two factors (i.e., competitive overlap and board monitoring efficiency) that are anticipated to influence the internal role of the board and also a factor (i.e., market growth) that affects the external role of the board.

These four moderators are prominent in two commonly used theories in corporate governance (i.e., resource dependence theory and agency theory) as well as in the IJV governance literature. Therefore, these moderating factors allow us to bridge the literatures on corporate governance and IJV governance, which is one of the broader aims of our study. Pfeffer and Salancik's (1978) work and subsequent work in the governance literature (e.g., Boyd, 1990) using resource dependence theory has emphasized the importance of the external environment for understanding firm behavior, and has identified dynamism and munificence (or the availability of critical resources) as two critical dimensions of organizational environments. Our two contingency factors that affect the importance of the external role of IJV boards (i.e., environmental volatility and market growth) capture these important dimensions of organizational environments. Agency theory posits that the importance of the internal role of boards is a function of the benefits and costs of monitoring (e.g., Boone *et al.*, 2007). Our three moderators that affect the importance of the internal role of IJV boards capture differences in both the benefits of monitoring (i.e., competitive overlap and board monitoring effectiveness) and the costs of monitoring (i.e., environmental volatility). In addition, our four contingency factors are also commonly used in the IJV governance literature (e.g., Folta, 1998; Krishnan, Martin, and Noorderhaven, 2006; Luo, 2007; Oxley and Sampson, 2004) and in the few studies that have investigated IJV boards in particular (Kumar and Seth, 1998; Reuer *et al.*, 2014). These factors are also interesting and appropriate to investigate as they also capture some unique features that differentiate IJVs from other organizational forms. Namely, while IJVs are set up with the aim to collaborate, partners often still compete and pursue their own interests, which we explore

by investigating the moderating effect of competitive overlap. By definition, IJVs also bring together a local and foreign partner, so the IJV will operate in a host country that is different from at least one partner's home country. This host country is likely to influence the functioning of the IJV in general and the governance of the IJV in particular. We take into account this aspect of IJVs with moderators capturing environmental volatility, board monitoring effectiveness, and market growth.

It is also important to emphasize at the outset that for any of these contingency factors to have an effect on board representation, there must exist some asymmetry across partners in the importance of the different functions that IJV boards serve. Such asymmetry is important to consider because we are investigating the local and foreign partners' relative equity contribution and relative board representation, both of which are proportions or percentages. This implies a zero-sum game, where an increase in board representation for one partner means a similar decrease for the other partner. Hence, for a factor to have either a direct or a moderating effect on the relationship between equity and board representation, it has to have a differential impact on each of the IJV partners' preferences for their level of board representation or for their ability to secure board representation. Otherwise, if a given factor had an equal impact on both partners, they would both seek board representation to the same extent. Although there can be multiple sources of asymmetry in IJVs, given that local and foreign partners differ in several important dimensions (e.g., Beamish and Banks, 1987) and given that the distinction between them is clear, we subsequently focus on the asymmetry arising from one partner being local and the other partner being foreign. Particularly important for our study are the ideas we develop below that local and foreign partners differ in their knowledge about the local environment and their relationships with local stakeholders (Beamish and Banks, 1987; Blodgett, 1991) as well as in how much industry-specific knowledge and technology they contribute to the IJV (e.g., Choi and Beamish, 2013; Hennart, 1988; Lyles and Salk, 1996; Xia, 2011). These differences have two important implications for board representation. On the one hand, as the local partner will have better local ties to stakeholders (e.g., suppliers, customers, and the government) and also greater local market knowledge than the foreign partner, the foreign partner is likely to leave more board representation to the local partner when the external role

of the board becomes more important. In such cases, the venture as well as the foreign partner will benefit by allowing the local partner's representatives on the board to execute the board's external role. On the other hand, when the internal role of the board becomes more important, the foreign partner might be particularly motivated to convert its equity into board representation to protect the relatively greater industry-specific knowledge and technology it contributes to the IJV.

Hence, leveraging the differences between the local and foreign IJV partner allows us to explain how our contingency factors reveal conditions under which a foreign IJV partner might have less board representation than might be expected, given its equity contribution to the IJV, or conditions that give the foreign IJV partner increased reasons to bargain to secure more board representation than would be expected given its equity contribution to the IJV.

Environmental volatility

IJVs often face considerable and varying levels of environmental volatility in host countries (e.g., Cuyper and Martin, 2010; Luo, 2007). Environmental volatility refers to the volatility of the external conditions faced by a firm that are outside its control and difficult to anticipate (Dess and Beard, 1984; Kumar and Seth, 1998). Just as this uncertainty can affect the management and performance of IJVs, corporate governance research has emphasized how environmental uncertainty has important implications for the functioning of boards.

In particular, corporate governance research has established that corporate boards face additional difficulties and are less efficient under conditions of environmental volatility (e.g., Carpenter and Westphal, 2001; Goodstein, Gautam, and Boeker, 1994; Halebian and Finkelstein, 1993), making increasing levels of board representation less attractive for owners (e.g., Boone *et al.*, 2007; Demsetz and Lehn, 1985; Ellstrand, Tihanyi, and Johnson, 2002). First, environmental volatility influences the external role of the board. In particular, higher levels of environmental volatility require more flexibility and more timely and responsive decisions (Huber, Miller, and Glick, 1990). Board members tend to possess less specific information about the environment surrounding the IJV, as compared to managers who are actively involved in the daily operations of

the IJV and who are closer to the changing environmental conditions (Ellstrand *et al.*, 2002; Fama and Jensen, 1983; Kumar and Seth, 1998). Therefore, in higher environmental volatility, it becomes more difficult for board members to assess the external environment for opportunities and threats, to make timely and responsive decisions, or to provide relevant and timely advice to managers. As a result, the external role IJV boards play would also become less effective when there is high environmental volatility, thus making it less attractive for an IJV partner to negotiate higher levels of board representation given the equity stake it has.

In addition, environmental volatility also makes it more difficult for an IJV partner to monitor the performance of the IJV and the behavior of the partner(s) through the IJV board. For example, Boone *et al.* (2007) suggested that corporate boards engage in less monitoring in "noisy" environments, and other scholars have argued that it becomes particularly difficult and costly to monitor under conditions of environmental volatility because of increased difficulties to disentangle the impact of managerial behavior from the impact of external changes beyond the control of management (e.g., Demsetz and Lehn, 1985; Goodstein *et al.*, 1994; Halebian and Finkelstein, 1993; Smith and Watts, 1992). Hence, the internal role IJV boards serve becomes less effective when there is high environmental volatility, reducing the incentive for an IJV partner to convert its equity stake into board representation.

As we discussed earlier, a higher equity stake increases an IJV partner's ability to convert its equity position to board representation. However, higher levels of uncertainty might make doing so less attractive, providing an IJV partner with a lower incentive to turn its equity participation into representation on the IJV board. Although we expect the effect of environmental volatility to hold to some extent for both the local and foreign IJV partner, the effect is likely to be more pronounced for foreign partners and their board representation. Compared to the local partner, the foreign partner will have less knowledge about the local environment (Beamish and Banks, 1987; Blodgett, 1991), and will struggle more in dealing with the volatile environment and engaging in the monitoring of the venture, resulting in a situation in which the foreign partner is less motivated to convert its ownership contribution to the IJV into a

corresponding level of board representation. Therefore, when environmental volatility is high, the foreign partner would be satisfied with and might even prefer a lower level of board representation than would be normally associated with its level of equity contribution, given the efficiency gains from providing the local management with more autonomy to make decisions on a timely basis or to leave board representation to the local partner.¹ Given the local partner's superior knowledge of host market conditions, the challenges imposed by environmental volatility will be lower for directors appointed by the local firm compared to the foreign partner. As a result, higher environmental volatility will reduce the incentives of the local partner to a lesser extent than those of the foreign partner to convert its equity into board representation. Therefore, the local partner might also make use of this asymmetry to seek more board representation since the foreign partner is more likely to relinquish seats on the board to the local partner. Accordingly, we expect:

Hypothesis 1: The degree of environmental volatility will negatively moderate the positive relationship between the foreign partner's equity stake in the IJV and its representation on the IJV board.

Competitive overlap

While the foregoing discussion considers a factor that can similarly affect both the internal and external role of the boards in the same direction and lead a foreign partner to have less board representation than its equity position might suggest, it is desirable to identify specific conditions that have differential effects on the internal versus external roles of boards. We begin by considering competitive overlap between partners as one factor that can affect the internal role of IJV boards (e.g., Krishnan

et al., 2006; Oxley and Sampson, 2004). Competitive overlap has been shown to be an important factor influencing a wide range of IJV design and performance outcomes, including their governance and stability (e.g., Harrigan, 1988; Luo, 2002). Particularly relevant for our purposes is the idea that an IJV between competitors is more likely to result in a situation in which the partners are behaving opportunistically by trying to maximize their private interests at the expense of other partners (Oxley and Sampson, 2004; Park and Ungson, 2001). For example, the risk of uncontrolled transfers of sensitive knowledge from one partner to the other partner is higher when the two partners are competitors. In such cases, the nature of the knowledge that is transferred will be more sensitive since the other partner can apply it in the same competitive area outside of the collaboration. In addition, competitors tend to have a greater ability to identify and assimilate valuable knowledge because they are more familiar with the activities of their partner (Cohen and Levinthal, 1990; Park and Russo, 1996).

The increased hazards of opportunistic behavior due to competitive overlap can be mitigated by using formal governance mechanisms, including IJV boards (Oxley and Sampson, 2004). For example, Pisano (1989) suggested that JV boards are able to protect against unintended knowledge transfers. Specifically, an IJV partner could make use of the internal role that the IJV's board of directors serves in order to monitor its partner(s) more closely and to resolve problems that might arise (Reuer et al., 2011). The increased importance of the IJV board's internal role as a result of the additional need for monitoring when the IJV partners are competitors provides an additional incentive to an IJV partner to convert its ownership participation in the IJV into representation on the IJV board.² As a result, we would expect there to be a stronger relationship between equity and board representation when the IJV partners are competitors.

¹IJVs are characterized by "coopetition," that is, partners simultaneously engage in competition and cooperation with each other (e.g., Brandenburger and Nalebuff, 2011). Since the foreign partner's leaving board representation to the local partner will likely lead to more value creation, as compared to pushing for more board representation for itself, we suggest that it is in the interest of the foreign partner to cooperate rather than to compete on this issue. In contrast, as we highlight in Hypothesis 2, when it comes to the internal role of the board, that is, monitoring and protecting resources, which is more about avoiding value appropriation by each of the partners, the competitive aspect of IJVs becomes more salient in shaping board representation.

²We thank an anonymous referee for suggesting the possibility that the foreign partner might opt for mechanisms other than the IJV board to establish control or to monitor its partner. However, these other mechanisms do not have to be substitutes for taking board representation, and using both IJV boards and these alternative governance mechanisms can simultaneously offer value to the foreign partner. Several studies have shown that alternative governance mechanisms often co-exist and act as complements rather than substitutes (e.g., Chen, Park, and Newbury, 2009; Poppo and Zenger, 2002). Specifically pertaining to IJV boards, Kumar and Seth (1998) provided evidence that board representation is positively correlated with having key managerial positions, which

As we have emphasized previously, for a contingency such as competitive overlap to affect board representation, it must have a differential effect on the partners, and we suggest that this is often the case in IJVs. Although an increase in competitive overlap naturally indicates that both IJV partners are each other's competitors, the partners are likely to face different levels of behavioral uncertainty as a consequence. The foreign IJV partner is generally the partner that contributes the most industry-specific knowledge and technology to the IJV (e.g., Choi and Beamish, 2013; Hennart, 1988; Lyles and Salk, 1996; Xia, 2011).³ As a result, the foreign partner is the party that is more prone to suffering from unintentional knowledge spillovers to and opportunistic behavior by the local partner. This asymmetry in the impact of competitive overlap, as faced by foreign and local IJV partners, is expected to motivate the foreign partner to seek greater board representation for the ownership position it maintains, in order to monitor and control the venture more closely.⁴ Therefore, we expect:

Hypothesis 2: The degree of competitive overlap will positively moderate the positive relationship between the foreign partner's equity stake in the IJV and its representation on the IJV board.

also suggests that these acts as complementary governance mechanisms rather than substitutes. If foreign IJV partners would systematically opt for alternative governance mechanisms and substitute board representation with such alternatives, we would expect this to work against our second hypothesis.

³We also check this assumption using a subsample of our data (72 observations) for which we have information on how much technological know-how the foreign partner and the local partner contributed to the IJV. The difference between the technological contributions by the foreign and local partners in this subsample is significant ($p < 0.001$), and the foreign partners on average contribute more than 4.5 times more technology to the IJV than do the local partners. These results provide support for the assumption we use in developing the hypothesis.

⁴One might also suggest that the local partner could push for greater learning opportunity via more board representation. As we elaborate in the Discussion section, research suggests that learning in IJVs is generally more likely to happen at levels lower than the board. As a result, such learning is likely to be reflected in initiatives other than more representation on the board. Even for any residual learning-related concerns that the local partner has, which might be aided by greater board representation, our claim is that the monitoring concerns will be stronger and more directly aided by greater board representation, thereby leading the foreign partner to have more representation for a given level of equity. A similar comparison between monitoring and learning likewise applies to the arguments we develop for Hypothesis 3 below.

Board monitoring effectiveness

A second factor that influences the importance of the internal role of IJV boards is how effective boards are at monitoring ventures in the host country of the IJV. Countries differ markedly in their formal and informal institutions, which results in diversity in the types and quality of corporate governance practices across countries (e.g., Aguilera and Jackson, 2003). Both formal institutions, such as legal frameworks, as well as informal institutions, such as cultural norms, have been put forward to explain the quality of governance practices. Although the quality of corporate governance practices across countries is the result of a complex combination of formal and informal institutions and there is no consensus on exactly which institutions drive the quality of corporate governance, several studies have highlighted the importance of country-level factors to organizational governance. These studies showed that, in fact, country characteristics explain much more of the variance in the quality of firms' governance practices than do firm characteristics (e.g., Doidge, Andrew Karolyi, and Stulz, 2007). More directly related to the focus of our study, boards also differ in their effectiveness to monitor management across countries (e.g., Aggarwal *et al.*, 2010) or in other words, in the effectiveness of the internal role they serve. In countries where institutions support the monitoring of management by boards, we expect the IJV partners to have a higher incentive to convert their ownership participation in the IJV into representation on the IJV board. Therefore, we expect there to be a stronger relationship between equity and board representation when the effectiveness of internal board monitoring is higher. Although this would increase the incentives of both IJV partners to engage in monitoring, the foreign IJV partner is generally the partner that contributes the most industry-specific knowledge and technology to the IJV, and therefore, will be the IJV partner that benefits most from more effective board monitoring of management (e.g., Choi and Beamish, 2013; Hennart, 1988). Therefore, we expect:

Hypothesis 3: The effectiveness of internal board monitoring in the IJV host country will positively moderate the positive relationship between the foreign partner's equity stake in the IJV and its representation on the IJV board.

Market growth

Having considered specific conditions under which the foreign partner has an enhanced incentive to use board representation to protect its investments and resources through the internal role provided by IJV boards, we now investigate a contingency factor that uniquely affects the external role of boards. We propose that the level of growth in the IJV's market will affect the importance of the external role of the board for the IJV partners. Resource dependence theory suggests that environmental munificence is a critical factor that affects firms' need to develop linkages to the external environment, including forming such linkages through corporate boards (Hillman, Withers, and Collins, 2009; Pfeffer and Salancik, 1978). Environmental munificence refers to an environment's ability to support sustained growth of organizations (Aldrich, 1979) and one important dimension of munificence is market growth (Castrogiovanni, 1991). In high-growth markets, resources tend to be abundant, plenty of opportunities exist, demands conditions are favorable, and competition among firms is less fierce. However, in markets experiencing lower growth or even decline, accessing critical resource becomes more challenging for firms and such scarcity threatens their viability. In such environments, as compared to high growth environments, it becomes more important for firms to build relationships with external stakeholders in order to get access to scarce resources. For example, Boyd (1990) has argued that corporate boards must build external relationships in environments with low munificence to secure access to scarce resources. Following corporate governance research on resource dependencies, we therefore propose that the external role of IJV boards becomes more important for the success of the IJV in declining markets or markets with low growth. However, the foreign and local partner are not equally positioned to serve the external role. Between the local and the foreign partner, it will be the local partner's representatives on the board who will be best suited to build critical external relationships because of the firm's local embeddedness and these directors' knowledge of the local environment. Hence, it will make more sense for the foreign partner to leave more board representation to the local partner, which will be better able to access resources from the environment than the foreign partner's own board members. The foreign partner will therefore

have fewer incentives to convert its equity share into board representation, and accordingly, we posit:

Hypothesis 4: Lower levels of market growth will negatively moderate the positive relationship between the foreign partner's equity stake in the IJV and its representation on the IJV board.

RESEARCH DESIGN

Sample and data collection

We collected data in 1998 by conducting a survey of two-party IJVs formed in Asia. Several reasons make this empirical setting particularly well suited to test our hypotheses. First, there is considerable variation in Asia across countries and partnerships in the country-level factors we are investigating in our hypotheses, especially during our sampling period. Second, we focused on a region that is important and economically relevant, which is reflected in the fact that many Asian countries are substantial recipients of foreign investments originating from a wide range of countries.

We followed a sampling procedure that comprised two phases. In the first phase, we contacted a large number of MNEs with IJV operations in Asia. Subsequently, we sought participation with senior executives at the corporate headquarters or Asian regional headquarters of these MNEs, and asked them to identify the most competent informant in a specific IJV. The key informant was generally the most senior manager or executive sent by the MNE to the IJV. Prior research on interorganizational relations has noted that identifying and obtaining responses from multiple, well-informed respondents is problematic because the information is often confidential and few executives within a particular firm are involved in overseeing such a relationship or are directly knowledgeable about its design and management (e.g., Kumar, Stern, and Anderson, 1993). Survey research on collaborative agreements therefore generally uses single key informants (e.g., Kale and Singh, 2007; Krishnan et al., 2006; Tsang, 2002; White and Lui, 2005).

In the second phase, we sent out 300 questionnaires to the key informants identified in the first phase. Of these, 108 questionnaires were returned and contained sufficient information to test our hypotheses. This 36 percent response rate compares favorably to the response rates of other IJV surveys

in an Asian setting (e.g., Gong *et al.*, 2007; Krishnan *et al.*, 2006; Li and Hambrick, 2005).

We checked for any potential nonresponse bias by comparing available IJV and parent characteristics for respondents and nonrespondents such as *IJV age* and *Foreign equity stake*. This did not reveal any differences between respondents and nonrespondents ($p > 0.25$). Similarly, as suggested by Armstrong and Overton (1977), we also compared early and late respondents using the covariates in our models presented below. Again this did not reveal any significant differences between these groups that might suggest any potential nonresponse bias.

Most of our independent and control variables are either factual or derived from data sources other than the survey used to obtain board composition information. Hence, we do not expect common method bias to be a problem in interpreting the estimation results. Nevertheless, to mitigate risks of common method bias and retrospective reconstruction, and to ascertain whether they exist, we carried out a number of *ex ante* and *ex post* approaches, as suggested by Chang, van Witteloostuijn, and Eden (2010). We report each of these steps and the results of the statistical tests in Appendix S2.

Dependent variable

Our dependent variable is the proportion of IJV board members from the foreign partner. We followed Kumar and Seth (1998), and divided the number of board members appointed by the foreign partner by the total number of members on the IJV board. We also used an alternative categorical dependent variable that is calculated based on whether the foreign partner has a minority, majority, or 50 percent equity stake, and whether the foreign partner has a minority, majority, or 50 percent board representation. We discuss this alternative dependent variable in more detail below in a section devoted to supplemental analyses. To adjust for possible nonindependence of observations within the same host country, we report clustered robust standard errors.

Independent variables

Foreign equity stake

To test the baseline prediction on which we build our moderating hypotheses, we use the foreign partner's percentage of ownership in the IJV.

Environmental volatility (Hypothesis 1)

A commonly used approach to capture environmental volatility is to simply calculate the variance of some output related to the broader external environment (e.g., stock prices, GDP, exchange rates). However, this approach does not account for predictable trends in the data and the possibility that the variance is heteroskedastic. To deal with these two concerns, we computed our environmental volatility measure using generalized autoregressive conditional heteroskedasticity (GARCH) models. More specifically, we collected daily time series data of the primary stock indices of each host country from Datastream, and we fitted GARCH models to each individual time series to get daily conditional variances for each country. Subsequently, the daily conditional variances of each country were averaged to obtain a one-year average, for the year preceding the year in which the survey was conducted. Using the conditional variances of stock market indices in a given country is consistent with other studies (e.g., Folta and O'Brien, 2004; Lee and Makhija, 2009), and represents uncertainty that is specific to the country and exogenous to the control and actions of individual firms and IJVs. As a robustness check, we also calculated the measure of environmental volatility using a two-year average instead of a one-year average of the daily conditional variances of the primary stock indices of each host country. This resulted in consistent results.

Competitive overlap (Hypothesis 2)

We use a seven-point Likert scale item to measure how much overlap there is in the markets served by both partners, as assessed by our respondent from the foreign IJV partner. This measure has the advantage that it captures the level of market overlap better between diversified firms operating in multiple businesses than indicator variables using SIC codes. The perceptual nature of our measure is also aligned with recent research suggesting that the perceptions of possible competitors or rivals are important determinants of the extent of rivalry or competitive intensity (e.g., Kilduff, Elfenbein, and Staw, 2010; Tsai, Su, and Chen, 2011).⁵

⁵We nevertheless checked whether our perceptual measure was also significantly related to measures constructed using SIC codes only when the data was provided for both partners by the respondent. We had two coders review the industries and activity description of the parents and code two-digit and three-digit SIC

Effective internal board monitoring (Hypothesis 3)

We used IMD's World Competitiveness Yearbook (WCY) to measure how effectively boards monitor management within particular countries. Specifically, we used the following item from the WCY, which is an index ranging from 0 (low board effectiveness) to 10 (high board effectiveness): "Corporate boards do supervise the management of companies effectively."

Market growth (Hypothesis 4)

We measured market growth using a seven-point Likert scale item to measure how much growth there is in the markets served by the IJV, as assessed by our respondent from the foreign IJV partner (e.g., McDougall *et al.*, 1994). We also used an alternative measure of market growth based on stock market data to check the robustness of our findings. Specifically, we used the primary stock indices of each host country from Datastream and calculated the growth of the stock index in the year preceding the year in which the survey was conducted. While the respondents of our survey are likely to have a better understanding of what constitutes their market and how it is evolving, this more general alternative measure nevertheless yielded consistent results, providing additional statistical support for Hypothesis 4 ($p = 0.001$).

More details on the survey items we used to construct our variables that are perceptual are available in Appendix S4.

Control variables

We controlled for multiple factors that may influence the proportion of board members from the foreign partner. First, we controlled for *prior partner-specific experience* with a dummy variable, which equals 1 if the partners had any collaborative arrangements prior to the focal IJV, and 0 otherwise. Second, we controlled for the *age of the IJV* to account for potential changes in IJV

governance or management since its inception. This variable was measured as the number of years since the IJV had been established. Third, we used the log-transformation of the total number of IJV employees to capture effects of *IJV size*. Fourth, we controlled for cultural differences between the two IJV partners by using Kogut and Singh's (1988) *cultural distance* measure. Fifth, we use the total number of members on the IJV board to control for *board size*. Finally, we control for whether the CEO is associated with the foreign partner or not using a dummy variable. *Foreign CEO*, equals 1 if the CEO is associated with the foreign partner, and 0 otherwise.

RESULTS

A correlation matrix and descriptive statistics are reported in Table 1. The average board size for the IJVs in our sample is 6.7. The average level of the foreign partner's representation on the IJV board is 57 percent while the average level of equity held by the foreign partner is 60 percent. The correlations do not suggest that multicollinearity is a problem. This is further confirmed by the variance inflation factors (VIFs), which are well below the recommended threshold of 10 for each of the variables in all the models we present.

Table 1 also shows that the correlation between the equity share of the foreign partner and the percentage of members it has on the IJV board is 0.76. This is consistent with other studies such as Bai *et al.* (2004), who found a correlation of 0.78 in a sample of Sino-foreign JVs. Interestingly, however, in 23 percent of the cases where the foreign partner had a minority ownership stake in the IJV, the foreign partner did not have a minority level of representation on the board. Also, in 17 percent of the cases where the foreign partner had a majority ownership stake in the IJV, the foreign partner did not have a majority level of representation on the board. Likewise, emphasizing the point that equity stakes and board representation do not necessarily correspond with one another, in 38.9 percent of the IJVs in our sample, the deviation between foreign equity and foreign board representation (both expressed as percentages) is five percent or more, and in 20.4 percent of the IJVs in our sample, this deviation is 10 percent or more.

Estimation results are reported in Table 2. Model 1 is the baseline model including all of the control

codes for each parent. Cohen's kappa for inter-rater reliability was 0.59 (z -test = 19, $p < 0.001$), suggesting high reliability. For the cases where the coders initially disagreed, a third coder went over each case with both of the original coders until there was unanimous agreement. We then constructed indicator variables for overlap on these two- or three-digit SIC codes. For either the two- or three-digit overlap indicator, there was a significant correlation ($p < 0.05$) between our competitive overlap item and the indicator.

Table 1. Descriptive statistics and correlations

Variables	Mean	St. dev.	1	2	3	4	5	6	7	8	9	10	11
1 Foreign board representation	0.566	0.116											
2 Board size	6.731	1.907	-.12										
3 Foreign CEO	0.519	0.502	.43	-.05									
4 Cultural distance	3.320	0.699	.11	.05	.11								
5 IJV size	4.847	1.533	-.03	.06	-.02	-.14							
6 IJV age	8.444	10.479	-.17	-.06	-.15	-.02	.16						
7 Prior partner-specific experience	0.463	0.501	-.11	.17	-.11	-.01	-.07	.00					
8 Environmental volatility	0.001	0.001	-.26	-.17	-.14	-.01	-.04	.26	-.02				
9 Competitive overlap	2.537	1.806	.04	.03	-.03	-.13	.07	.05	.05	-.08			
10 Board monitoring effectiveness	4.955	1.279	.26	.12	.24	.06	.09	-.35	-.04	-.63	.13		
11 Market growth	5.139	1.391	.06	.10	.00	.02	-.11	-.18	.01	-.03	-.09	.08	
12 Foreign equity stake	0.596	0.148	.76	-.15	.47	.08	.00	-.05	-.08	-.10	-.01	.23	.04

n = 108.

variables. In Model 2, we introduce foreign equity stake. Finally, in Models 3 through 6, we introduce the interaction effects. The interactions are added individually in separate models because adding them together results in multicollinearity due to the strong correlation between foreign equity stake and foreign board representation, and the fact that the former variable would enter the equation multiple times in multiplicative terms (i.e., individual VIFs above 100, the average VIF for the model above 40). In Model 2, as expected, we find a positive and significant relationship (p -value = 0.002) between the foreign partner's equity stake and its representation on the board of the IJV. When we investigate the economic significance of the hypothesized effect, we see that an increase of one percent in the foreign partner's equity stake increases its participation on the board by 0.56 percent, holding everything else constant.

In Hypotheses 1 through 4, we propose four factors that moderate the relationship between the foreign partner's equity stake and its board representation (see Models 3–6). We find that the estimated interaction term between the foreign partner's equity stake and environmental volatility is negative and significant (p -value = 0.000), and this supports Hypothesis 1. In other words, the effect of foreign equity stake on foreign board representation is weaker under higher levels of environmental volatility. In particular, with variables set to their mean values, a one standard deviation increase in environmental volatility reduces the relationship between foreign equity and foreign board representation by 53 percent. Consistent with Hypothesis 2, we find that the interaction

between foreign equity stake and competitive overlap is significant and positive (p -value = 0.019). Thus, the relationship between foreign equity stake and foreign board representation is stronger when there is more competitive overlap. In particular, a one standard deviation increase in competitive overlap increases the relationship between foreign equity and foreign board representation by 20 percent. We also find a positive and significant (p -value = 0.015) interaction term between foreign equity stake and board monitoring effectiveness. This is consistent with Hypothesis 3 and suggests that relationship between foreign equity stake and foreign board representation is stronger when board monitoring is more effective. Specifically, a one standard deviation increase in board monitoring effectiveness increases the relationship between foreign equity and foreign board representation by 45 percent. Finally, we find that the interaction between foreign equity stake and market growth is significant and positive (p -value = 0.011). In other words, as we have hypothesized, lower levels of market growth weaken the effect of foreign equity stake on foreign board representation, which is consistent with Hypothesis 4. Here, a one standard deviation decrease in market growth decreases the relationship between foreign equity and foreign board representation by 17 percent.

To further assess the effects of equity stakes in different IJV governance contexts, we calculated the partial derivative of foreign equity stake in the equations with the interaction terms (e.g., Aiken and West, 1991). This revealed that the effect of foreign equity stake on foreign board representation is positive and does not become negative over

Table 2. Results for board representation by the foreign partner

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	0.549 (0.077)	0.305 (0.105)	0.030 (0.034)	0.393 (0.122)	0.814 (0.192)	0.512 (0.158)
Board size	-0.009 (0.005)	-0.002 (0.004)	0.003 (0.002)	-0.002 (0.004)	0.000 (0.004)	-0.003 (0.004)
Foreign CEO	0.085 (0.015)	0.015 (0.011)	0.028 (0.011)	0.015 (0.008)	0.030 (0.012)	0.012 (0.008)
Cultural distance	0.013 (0.010)	0.009 (0.008)	0.007 (0.009)	0.009 (0.008)	0.011 (0.007)	0.010 (0.008)
IJV size	-1.6E-04 (0.008)	-1.7E-04 (0.003)	-1.7E-04 (0.002)	-2.7E-04 (0.002)	0.001 (0.002)	0.003 (0.004)
IJV age	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.000)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Prior partner-specific experience	-0.012 (0.018)	-0.012 (0.015)	-0.020 (0.017)	-0.010 (0.016)	-0.016 (0.017)	-0.010 (0.015)
Environmental volatility	-35.008 (13.809)	-38.619 (9.815)	199.077 (21.161)	-38.075 (10.760)	-39.035 (9.976)	-41.063 (8.227)
Competitive overlap	0.004 (0.006)	0.004 (0.004)	0.003 (0.003)	-0.037 (0.015)	0.002 (0.003)	0.005 (0.004)
Board monitoring effectiveness	0.002 (0.006)	-0.010 (0.003)	-0.015 (0.002)	-0.011 (0.004)	-0.113 (0.035)	-0.011 (0.003)
Market growth	0.005 (0.003)	0.001 (0.003)	0.002 (0.005)	0.003 (0.003)	0.001 (0.004)	-0.039 (0.010)
Foreign equity stake	0.559 (0.125)	0.559 (0.125)	1.037 (0.076)	0.405 (0.138)	-0.367 (0.348)	0.200 (0.224)
Foreign equity stake × environmental volatility			-421.969 (40.602)			
Foreign equity stake × competitive overlap				0.068 (0.024)		
Foreign equity stake × board monitoring effectiveness					0.174 (0.058)	
Foreign equity stake × market growth						0.068 (0.022)
R-squared	0.26	0.63	0.72	0.65	0.69	0.65
F-statistic	3.43	15.01	20.79	14.78	17.56	14.39

Estimated coefficients are in bold. Standard errors, clustered for host country groups, are in parentheses. *P*-values are between square brackets. All tests are two-tailed. Number of observations is 108.

the entire range of any of the four moderator variables in our sample. In addition, we also plot our moderating effects. These plots are available in Appendix S3 and confirm the inferences based on the coefficients, while further highlight that our moderating effects are practically significant.

To check the robustness of our results, we performed several additional analyses and robustness checks, including using an alternative dependent variable and several alternative model specifications. A summary of these is available in Appendix S1.

DISCUSSION

Contributions and implications

Boards of directors have long been considered an important governance mechanism in IJVs. However, little research has focused on IJV boards in general and the determinants of firms' representation on IJV boards in particular. In this study, we add to this important literature by improving our understanding of the factors that impact foreign partners' representation on the boards of IJVs. In particular, we start by documenting support for the oft-assumed idea that the foreign partner's equity stake is a key determinant of its representation on the IJV board, if not equivalent to this representation. More importantly, we argue and show how factors that affect the importance of the internal and external role served by IJV boards moderate this baseline relationship between equity ownership and board representation. Of these factors three (i.e., environmental volatility, competitive overlap, and board monitoring effectiveness) influence the importance of the internal role of the IJV board for the foreign partner, and thereby, moderate the relationship between the foreign partner's equity stake and its representation on the board. We also find that the equity stake-board representation relationship gets moderated by two factors (i.e., environmental volatility and market growth) that influence the importance of the external role of the IJV board.

Our findings have a number of important implications for research on IJVs and corporate governance. First, we contribute to the IJV literature at large and the IJV governance literature in particular. A limited body of studies has investigated the role of IJV boards, mainly focusing on the functions and involvement of IJV boards and their performance

implications (e.g., Klijn *et al.*, 2013; Reuer *et al.*, 2014). However, the factors that drive the composition of IJV boards and the factors that lead firms to secure, or settle for, more or less representation on IJV boards than one would expect given their equity contribution remain under-explored. Our findings show that there is a relationship between the equity distribution of IJVs and the compositions of IJV boards, yet the strength of this relationship varies considerably under different levels of the four moderating factors we consider. Hence, the relationship between the equity distribution of IJVs and the composition of their boards is far more complex than previously assumed. The control provided by board representation might be greater or lesser than that conveyed by equity stakes. Moreover, our results underscore the point that seeing boards as only a control mechanism is too simplistic and ignores the complexity of the multiple functions IJV boards can serve.

Second, we also contribute to corporate governance research by bridging the literatures on corporate governance and IJVs. We show that some of the logic used to explain the composition of corporate boards can be extended to IJV boards. In particular, we extend agency theoretic and resource dependence arguments to IJV boards and argue that the composition of IJV boards also depends on the monitoring needs and costs, and external resource requirements of the IJV partners. However, IJVs offer a unique setting where, in addition to dealing with external challenges, firms also have to deal with their partners within the IJV and ensure that they do not behave opportunistically, and board representation provides one means of doing so. We leveraged this characteristic of IJVs to extend the corporate governance literature by showing that factors important in IJVs, such as the competitive overlap between partners, and environmental volatility, differentially influence the partners' monitoring and external resource needs, and thereby, the composition of the board based on partners' representation.

In addition, our findings have a number of interesting implications for corporate governance research. In that literature, Baker and Gompers (2003) and Lynall *et al.* (2003) have argued that the composition of corporate boards is the outcome of a negotiation process between the owners and the CEO, where the relative bargaining power and contributions of these parties influence board composition. As IJV partners face similar negotiations and a partner's equity contribution is closely related to

its resource contributions to the IJV (e.g., Blodgett, 1991; Pan, 1996; Pisano, 1989) and its relative bargaining power (e.g., Mjoen and Tallman, 1997; Yan and Gray, 1994), the positive relationship we find between equity ownership and board representation is in line with the arguments put forward in the corporate governance literature. However, and more interestingly, we also extend this research by showing that conditions both internal and external to the IJV (e.g., environmental volatility, market growth, and competitive overlap) or the characteristics of the owners (e.g., foreign versus local) matter for the extent to which they convert their ownership into board representation. This raises interesting and broader questions about the conditions under which different types of shareholders of corporations will be more or less motivated to convert their ownership into seats on corporate boards. These are issues that remain largely unexplored in the corporate governance literature and which deserve further attention. Although considering boards of other organizational forms (e.g., corporations, family firms, foreign subsidiaries, etc.) is beyond the scope of our study, our findings in the context of IJVs highlight the relevance of looking at similar issues in corporate governance research. This further highlights the potential for fruitful cross-fertilization between the corporate governance and IJVs literatures.

Finally, our findings also have implications for scholars who investigate IJV governance. Many IJV governance studies have used ownership stakes as an indicator of control, instead of more direct measures such as board representation. Although this is not surprising, since ownership data are generally more readily available, our findings suggest that this practice might be problematic, particularly under certain conditions we have identified that weaken the link between equity stakes and board representation. Therefore, we would caution against the indiscriminate use of equity ownership as an indicator of administrative control, and we would call for more research on boards or other mechanisms for administrative control in IJVs. Also reinforcing this conclusion is our evidence that representatives can serve functions other than control on IJV boards.

Limitations and further research

As any other study, ours is not without limitations, and several suggestions for further research can be made. To begin with, it would be valuable to examine the generalizability of our findings, and there are

several ways to do so. We have investigated boards of IJVs, so there are opportunities to study joint ventures in which the asymmetry we have used between foreign and local partners does not apply. It would be interesting to consider other sources of asymmetry, therefore, that shape the abilities of partners' representatives to fulfill boards' external and internal roles. Extension to this study might also consider more recent governance practices and investigate other countries to examine the generalizability of our findings.

We focus on the determinants of IJV board representation without examining the actual performance consequences of different IJV board designs. Therefore, it would be a natural extension in future research to study the performance consequences of different designs under various conditions. Such research could examine the effects of boards on other intermediate outcomes (e.g., trust or learning), and it would be valuable to study the functioning of boards longitudinally to investigate how boards and their functioning potentially evolve over time.

The aim of our study is to improve our understanding of the ownership-board representation relationship in general. We do this in the context of IJVs, which allows us to reveal different mechanisms by leveraging some of the differences between local and foreign partners in IJVs. At the same time, we carefully control and check for country-specific factors, allowing us to argue that the mechanisms we propose are generalizable to a wide range of countries. However, several studies have suggested and shown that some corporate governance practices vary across national boundaries (e.g., Aguilera and Jackson, 2003; Clarke and dela Rama, 2006). Therefore, future research could explore the international aspect of IJVs further by looking at variation in IJV board composition and IJV governance across different host countries in additional ways. One area that we believe would be particularly interesting to explore is how the institutional, legal, and cultural environments in the home countries of each of the IJV partners affect the composition of IJV boards. IJV boards are generally subject to less comprehensive legal requirements than are corporate boards (e.g., Reynolds, 1980), and in contrast to corporate boards, the functioning and characteristics of IJV boards are generally determined through negotiations between the local and foreign partner, and formalized in the IJV's articles of association and the IJV agreement (e.g., Campbell and Reuer,

2001). It would be an important extension for future research to study to what extent and in what ways the institutional, legal, and cultural environments of each partners' home country shape these negotiations and their outcomes in terms of the functioning and composition of the board.

Our study focuses on improving our understanding of the relationship between equity ownership and one particular but important governance mechanism (i.e., IJV boards). IJV partners can also choose from a variety of other mechanisms to govern their IJVs, such as the IJV's contract or obtaining key managerial positions (e.g., Chen *et al.*, 2009; Chi and Roehl, 1997). It would be interesting to see how these alternative governance mechanisms interact with IJV boards and how they thereby might influence the relationship between equity ownership and board representation.

We have investigated four IJV and host country characteristics that affect the importance of the internal and external role of the board, and therefore, moderate the relationship between equity contribution and board representation. Future research could examine yet other factors or refine the ones we focus on to further evaluate how these might affect the design of IJV boards. For example, one of the factors we explore is environmental volatility, which we argue affects the cost of monitoring (e.g., Demsetz and Lehn, 1985). However, there might be additional factors that affect the cost of monitoring that are worth exploring. We also examined how several important host country characteristics moderate the ownership-board representation relationship. However, as we focused on the host country, we did not look at the effects of differences between the foreign partners' home countries and the host country. Therefore, another interesting avenue for future research would be to investigate the effects of these differences between the home countries of the foreign partners and the host country.

In this study, we focus on two important functions of IJV boards—one internal and one external—that have been consistently argued to be of particular importance in IJVs (Björkman, 1995; Kriger, 1988; Kumar and Seth, 1998). However, there might be other functions boards serve, such as coordinating between the IJV partners, conflict management, facilitating learning, and appraising managerial performance (e.g., Reuer *et al.*, 2011; Reuer *et al.*, 2014), which would be interesting to study. For example, a higher need for coordination between the IJV partners might have a different impact

on the relationship between equity ownership and board representation as it might require more balanced board representation between the IJV partners. In addition, firms often enter into IJVs with the purpose of learning and accessing knowledge (e.g., Lyles and Salk, 1996). Therefore, it would be interesting to explore how IJV boards can facilitate learning and how this would affect the relationship between equity and board representation. We believe these are interesting issues for future research to consider.

CONCLUSION

Relatively little attention has been paid to boards in IJVs, and the composition of these boards in particular. We show that a foreign partner's representation on the IJV board is related to the equity distribution of the IJV, and more importantly, that this relationship is moderated by IJV and host country characteristics that affect the importance of the internal and external roles that IJV boards serve. These results provide insights into the conditions under which a partner might wish to secure greater board representation for its level of equity, or utilize less board representation than might be suggested by its equity level alone.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix S1. Supplementary Analyses and Robustness Checks.

Appendix S2. Common Method and Single Respondent Bias.

Appendix S3. Interaction Plots.