

What determines the performance of strategic alliance managers? Two lens model studies

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Abstract Given the increasingly frequent call—often from macro, strategy researchers—for more micro-level probes into the drivers of strategic alliance performance, this article has responded to such a call by leveraging the organizational behavior (OB) and human resource (HR) literature on competencies. Based on two studies drawing on the lens model (Brunswick, 1954), we take on an important but little explored question: “What determines the performance of strategic alliance managers?” In Study 1 (a laboratory study), double system policy capturing results show a positive relationship between alliance competencies and performance judgments. In Study 2 (a field study), we investigate the evaluative behavior of alliance supervisors. Hierarchical linear modeling (HLM) results suggest that some structural, functional, and social competencies are evaluated as more important than other competencies in determining alliance managers’ performance.

Keywords Alliance manager performance · Alliance competencies · Lens model · Cues

As strategic alliances proliferate, their performance becomes an increasingly central management concern. To date, the majority of studies on alliance performance have

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focused on the macro-level (strategic) determinants such as equity contributions, nationality differences, and learning capabilities (Steensma, Tihanyi, Lyles, & Dhanaraj, 2005). In comparison, as noted by Schuler, Jackson, and Luo (2004), strategic alliances have not attracted significant attention from micro researchers in organizational behavior (OB) and human resources (HR). However, even macro, strategy researchers increasingly realize that equity, nationality, and learning, per se, do not unambiguously determine the performance of strategic alliances (Peng, 2011), and that it is often the micro-level skills and competencies of strategic alliance managers that make or break alliance relationships (Child & Faulkner, 1998; Zoogah, Vora, Richard, & Peng, 2010).

Strategic alliance managers are individuals who represent the interests of alliance firms and who interact with counterparts from alliance partner firms on a daily basis. They live a precarious existence, trying to advance and maximize the interests of their respective parent firms while attempting to make the complex alliance relationship work. As much as alliances represent a strategic and economic arrangement, they also constitute “a social, psychological, and emotional phenomenon” (Peng & Shenkar, 2002: 92). In addition to exercising strategic and operational responsibilities, alliance managers are relationship managers who require skills rarely covered in the traditional business school curriculum, which tends to emphasize competition over collaboration (Goerzen, 2005). It is not surprising that many alliance managers fail, which in turn contributes to the failure of the strategic alliance relationships. It is therefore imperative that a new generation of alliance research focus on the micro-level determinants of the performance of alliance managers. It is here OB and HR research can potentially contribute toward a greater understanding of the drivers of strategic alliance dynamics (Schuler et al., 2004; Zoogah et al., 2010), by leveraging expertise in the micro level to examine determinants of the performance of alliance managers.

Because the success and failure of alliance managers, to a large extent, drive the performance of strategic alliances (Koza & Lewin, 1999; Schuler et al., 2004), in this article, we address a basic but little explored question: What determines the performance of strategic alliance managers? Addressing this question provides a crucial link connecting the micro-level OB/HR issues and macro-level alliance outcomes—in short, a *micro-macro link* (Peng & Luo, 2000). This question is increasingly important as more firms start to develop dedicated alliance functions and need to select managers with the most appropriate competencies to staff such positions (Goerzen, 2005; Kale, Dyer, & Singh, 2002). Thus far, the limited existing work on the relationship between alliance managers’ competencies and alliance performance (Shenkar & Zeira, 1987) has not directly linked alliance competencies with the performance of alliance managers. This article takes up this challenge by focusing on alliance competencies.

The lens model is a judgment analysis technique that is used in modeling and comparing judgment policies and achievement in environmental psychology, judgment and decision making, and social psychology. Guided by the lens model pioneered by Egon Brunswik (1954),¹ we conducted two studies: In Study 1 (a

¹ There is now a Brunswick Society, with about 300 members worldwide (see <http://www.brunswick.org/>).

laboratory study), we investigated the relationship between alliance competencies and alliance manager performance. Based on effectiveness theory, we proposed that alliance competencies will influence alliance manager performance (i.e., the total expected value to alliances of the behaviors of alliance managers during a period of assigned alliance tasks). Consistent with the job performance literature (Motowidlo, 2003), alliance manager performance relates to the behaviors that create value for alliance organizations. Competencies enable alliance managers to exhibit performance behaviors. In Study 2 (a field study), we examined whether certain competencies are evaluated by alliance supervisors as more important and most likely to contribute to alliance performance. Overall, these two studies depart from the literature in at least two significant ways. First, they show a link between managerial performance and alliance partner performance as predicted by alliance competencies. Second, they provide an empirical basis for the influence of behaviors on alliance outcomes. Overall, if alliance management is to lead to competitive advantage (Schuler et al., 2004), we believe alliance competencies are crucial to that process.

Theoretical background

Competency theory (Boyatzis, 1982; Spencer & Spencer, 1993) has been applied to organizations, teams, and individuals (Boyatzis, 1982). Generally, competency theory posits that the cluster of knowledge, skills, and attitudes which are unique to organizations, teams, and individuals positively influence performance (Sanchez, 2001). The individual perspective which is adopted in this study is consistent with training, compensation, and performance management fields (Milkovich & Newman, 2005; Motowidlo, 2003). Defined as clusters of interrelated knowledge, skills, values, attitudes, and personal characteristics that are important for successful performance on the job, competencies influence the performance of individual employees and managers (Boyatzis, 1982; Spencer & Spencer, 1993).

Recently, competency theory has been applied to alliance managers (Spekman, Isabella, & McAvoy, 2000). Spekman et al. (2000) proposed functional, interpersonal, and earned competencies as critical to successful performance of alliance tasks. Functional competencies refer to competencies that “relate to the actual business experiences and expertise required for general management strength” (p. 192). Earned competencies refer to competencies that are a “result of a job well done than the expertise gained in performing the task” (p. 193). Interpersonal competencies refer to skills that “have to do with the ability of alliance managers to interact appropriately in diverse social settings” (p. 194). Even though these categories are helpful, the boundaries between the categories are blurred. Can earned competencies not be functional or interpersonal? Second, can interpersonal competencies not be functional? Third, the competencies do not seem to have been derived from empirically validated research (Leung & White, 2006).

Consequently, the field is limited by the lack of empirical research on alliance competencies. First, alliance managers manage alliance projects and processes that span multiple structural, functional, and social categories (Parkhe, 1993; Rond & Huff, 2003). The structural, functional, and social characteristics of alliances which

influence alliance performance are embedded with constraints and difficulties (Doz & Hamel, 1998; Olk, 2002). Effective resolution of these constraints requires commensurate competencies (i.e., structural, functional, and social competencies). Given that empirical studies on alliance competencies are lacking, we do not know how competencies influence alliance manager performance or which ones are more important.

Competencies linked to the structural, functional, and social characteristics of alliances are more likely to influence alliance performance through compilation processes (i.e., different manifestations of a common phenomenon). For example, the structural, functional, and social competencies of alliance managers relate to those of alliance teams and alliance organizations. In other words, the skills and knowledge of an alliance manager increases the competencies of an alliance team to which he/she is assigned, and the competencies of that team contribute to the competence of an alliance organization, thereby making the latter effective in collaboration (Chen & Tjosvold, 2008). The structure, function, and social characteristics of alliances to which alliance managers are interlinked facilitate or hamper the compilation process.

Research suggests that how alliances are structured influences outcomes likely to be attained (Gulati & Singh, 1998). Alliances generally involve at least two organizations. Simple- and complex-structured alliances differ in knowledge and skill (i.e., competency) demands (Lynch, 1993). The performance and behavior of alliance managers differ between these structures. For example, information sharing behaviors of alliance managers seem to be more complicated in complex-structured alliances than in simple-structured alliances. Second, alliances are functional in that they create value for alliance partners (Doz & Hamel, 1998). Alliance managers not only create value when they influence deal signing, but also when they leverage knowledge from alliance partners. Knowledge leverage is facilitated through interactions. Further, alliances serve multiple functions simultaneously. For example, an alliance between Volvo and GM may involve production, R&D, as well as marketing functions. The performance of alliance managers in these functions ultimately influences alliance outcomes. Third, alliances are social, and their outcomes are inextricably linked to social interactions (Rond & Huff, 2003). The interactions of individuals and groups of managers from two or more organizations facilitate achievement of alliance partners' objectives (Rond & Huff, 2003). Interaction-specific competencies facilitate effective exchange between alliance managers and teams.

Thus, we define alliance competencies which comprise structural, functional, and social categories as clusters of interrelated knowledge, skills, values, attitudes, or personal characteristics of alliance managers which derive from alliance training, education, and experience and contribute to effective performance of alliance tasks. Structural competencies refer to competencies that enable alliance managers to fit effectively (i.e., perform optimally) within the specific alliance structures. Functional competencies refer to those that enable alliance managers to resolve problems associated with the functional aspects of alliances. For example, marketing and financial knowledge or skills enable alliance managers to resolve marketing and financial problems of alliances. Social competencies refer to those that enable alliance managers to interact effectively in private (i.e., peer managers) and collective (i.e., alliance team) contexts (Chen & Tjosvold, 2008).

The definition of competencies which links skills and knowledge to individual underlying characteristics suggests that there could be innumerable numbers of competencies possessed by alliance managers (Spekman et al., 2000). However, not all are relevant to alliances or essential to alliance manager performance. As a result, in two studies, we focused on competencies that the practitioner and academic literatures have identified as essential for performance of alliance managers (Bamford, Gomes-Casseres, & Robinson, 2003; Lynch, 1993; Spekman et al., 2000).

Study 1: A laboratory study

Few studies, if any, have investigated performance of alliance managers (see Zoogah et al., 2010 for a recent exception). “So much is at stake in an alliance, as reflected by the voluminous firm-level research on this topic, but we know so little about the relevant people issues that may make or break an alliance” (Leung & White, 2006: 203). In other words, performance of alliance managers directly and indirectly affects alliance processes and outcomes (Doz & Hamel, 1998). Alliance managers develop underlying and unique characteristics which enable them to maximize performance beyond that of their peers (i.e., competencies) through interactions in their environments (McClelland, 1998). These unique set of competencies which are associated with the structural, functional, and social characteristics of alliances differ significantly from conventional firms (Rule & Keown, 1998; Spekman et al., 2000) and may be (1) skill-specific, (2) knowledge-specific, or (3) attitude-specific (Klein, 2003). They enable individual alliance managers to positively influence self, team, and alliance performance (Doz & Hamel, 1998) by effectively managing behavioral and environmental uncertainties (Chen & Tjosvold, 2008; Peng & Shenkar, 2002). Competent managers are able to discern how divergent goals, financial and human resources, and competencies of alliance partners are likely to impact alliance outcomes (Child & Faulkner, 1998), and to act accordingly to optimize individual and alliance performance.

Thus, macro-level alliance performance may be understood by considering factors that influence the micro-level performance of alliance managers (Schuler et al., 2004). Studies show that alliance managers interact with their peers, supervisors, and partners within and across organizational boundaries using generic competencies (required in all contexts to ensure effectiveness) and specific competencies (bound to particular entities) (Lin & Germain, 1998; Zhan, Chen, Erramilli, & Nguyen, 2009). The latter contribute to competitive advantage because they enable organizations to differentiate themselves (Spekman et al., 2000; Zhan et al., 2009). In short, both generic and specific competencies enable alliance managers to perform alliance tasks and interact effectively in complex and uncertain alliance environments with different structural, functional, and social characteristics (Lynch, 2001).

Study 1: Hypotheses

A literature review suggests that alliance competencies may relate to the structural, functional, or social characteristics of strategic alliances (Spekman et al., 2000). As organizational forms, alliances assume the structures of traditional organizations

albeit in a different form (Kale et al., 2002; Lynch, 1993). Organizational structure, which generally refers to the way in which the interrelated groups of an organization are constructed, facilitates communication and coordination (Doz & Hamel, 1998). It also facilitates commitment since it enables members to identify with the organization through their departments. As a result, competency research has identified the ability to coordinate, communicate, and identify with an entity as unique skills and attitudes which contribute to effective performance (Boyatzis, 1982). They enable managers to overcome problems related to organizational structures (i.e., structural problems) (Kale et al., 2002).

Consistent with that view, we define structural competencies as skills, knowledge, and attitudes that relate to alliance structures. They enable alliance managers to resolve structural problems (i.e., coordination, communication, and commitment) which can contribute to alliance failures (Gulati & Singh, 1998). Through coordination, communication, and commitment competencies alliance managers regulate diverse aspects of alliances into an integrated and harmonious whole; interact with managers from other organizations; convey meaning to partners regarding alliance goals, processes, and outcomes; persuade partners about motivational alignment, resource needs, win executive endorsements, and equilibrate the share-protect dialectic to minimize knowledge leakage (Kale et al., 2002; Lynch, 2001). In addition, such competencies enable alliance managers to complexify tangible and intangible benefits (i.e., realize potential learning benefits) (Child & Faulkner, 1998; Dyer, Kale, & Singh, 2001) through maximization of their psychological and interpersonal resources to realize alliance outcomes. Therefore:

Hypothesis 1 Structural competencies will positively influence alliance manager performance.

Three functional competencies likely to influence performance of alliance managers include (1) knowledge, (2) achievement orientation, and (3) negotiation. As a competency, knowledge refers to the cognitive process of capturing, processing, and utilizing environmental stimuli effectively. Although there are different categories of knowledge, from the perspective of management, functional knowledge (i.e., knowledge of the business and alliance functions that influence alliance performance or learning) contributes to alliance knowledge acquisition (Spekman et al., 2000).

Achievement orientation refers to the ability of managers to work well against an excellence metric. It is motivated by strife for improvement, results orientation, and innovation (Spencer & Spencer, 1993). Alliances are results-oriented in that they are structured to improve distal (knowledge) and proximal (financial) performance of alliance organizations. Managers with the ability to achieve the requisite results contribute to these objectives. In other words, successful alliance results depend on the achievement orientation competence of alliance managers (Spekman et al., 2000).

Applied to alliances, negotiation competencies enable alliance managers to negotiate contracts effectively. Alliances are contractual relationships that have to be constantly negotiated and renegotiated (Doz & Hamel, 1998; Kale et al., 2002). Alliance activities, objectives, processes, and other environmental factors change

often necessitating renegotiation of roles and responsibilities of partners (Dyer et al., 2001; Kale et al., 2002; Spekman et al., 2000). The ability of managers to recognize changes that require renegotiation enables them to minimize, if not avoid potentially disastrous outcomes. More importantly, managers with effective negotiation skills are able to persuasively present rationales and alternatives to outcomes that integrate the needs of all partners (Kale et al., 2002; Lynch, 1993). Managers with negotiation competencies thoroughly engage in preparation, information exchange, explicit bargaining, and commitment processes leading to alliance and team viability (Zoogah, 2006).

In sum, functional competencies enable partners to achieve their fundamental objectives for forming alliances which include business drivers such as profitability, learning, and cost reduction. Indeed, our interviews with alliance managers and directors show that alliance teams composed of managers with functional knowledge (such as marketing, finance, production, and R&D) are able to create and utilize value in alliances. Therefore:

Hypothesis 2 Functional competencies will positively influence alliance manager performance.

Social competencies focus on the interactions of alliance managers and teams. Social competencies refer to interaction skills and attitudes, including interpersonal understanding, cultural sensitivity, conflict resolution, and team orientation. Four social competencies likely to influence alliance manager performance include interpersonal understanding, cultural sensitivity, conflict resolution, and team orientation (Chen & Tjosvold, 2008; Spekman et al., 2000). Interpersonal competencies enable alliance managers to share vital information in both private and non-private settings. In addition, interpersonal competencies enable alliance managers and teams to minimize transaction costs arising from mistrust. In other words, such skills lead to partner trust, which is instrumental in learning alliances (Das & Teng, 1998). Cultural sensitivity competency also enables alliance managers to interact effectively with other managers and teams from different organizational and societal cultures (Spekman et al., 2000). Alliances often involve partners from two or more cultures (organizational and national). Consequently, different cultural perceptions regarding mode of interaction and operation often lead to conflict (Parkhe, 2004). Cultural incompatibility contributes to alliance failures (Parkhe, 2004). Cross-cultural competencies enable alliance managers to interact effectively during alliance formation and implementation. In addition to influencing trust-building (Das & Teng, 1998), cross-cultural competencies influence knowledge sharing processes (Lynch, 1993).

Conflict in alliances is common. The major reasons include goal differences, resource allocation, reward distribution, and lack of commitment (Chen & Tjosvold, 2008). The ability of alliance organizations (i.e., alliance managers) to resolve conflicts increases alliance viability (Child & Faulkner, 1998; Doz & Hamel, 1998). Thus, conflict resolution skills enable alliance managers to protract the life of alliances and maximize alliance outcomes (Peng & Shenkar, 2002). The fourth social competency likely to influence alliance manager performance is team orientation (Lynch, 1993; Spekman et al., 2000). Teams are often used to manage alliance

projects (Oliver & Roos, 2002; Zoogah, 2006). As a result, alliance managers are expected to be able to work in teams (i.e., have team skills). The team literature suggests that organizations nowadays select individuals with team competencies. Team competencies lead to team cohesion and cooperation (Zoogah et al., 2010). Individual team members may voluntarily fill in for other members (i.e., exhibit backup behavior) (Klein, 2003) which enables alliance teams to meet crucial deadlines. In sum, social competencies enable alliance managers to distribute information within and across organizational boundaries, act in ways that are not detrimental to alliance relationships, resolve cultural misperceptions which often lead to conflict, build trust, and optimize intercultural knowledge acquisition, protection, and distribution (Das & Teng, 1998; Parkhe, 2004; Peng & Shenkar, 2002) and lead to win-win outcomes for alliance partners. Even though they may intertwine with structural competencies especially when alliance tasks are structural, they are independent (Lynch, 1993). Therefore:

Hypothesis 3 Social competencies will positively influence alliance manager performance.

Study 1: Method

Brunswik's lens model Cognitions, affect, behaviors, and performance are contingent on the environment. In order to understand and evaluate individuals, the relationship between the environment and the individuals has to be considered. Environmental psychologists traditionally investigate the relationship, statically or dynamically, using two principal approaches: direct perception and indirect perception (Cooksey, 1996). Direct perception views the relationship between individual behaviors and the environment to be unmediated by cognition. Indirect perception, on the other hand, views the relationship between individuals and their environments as mediated by cognitive processes because perception is inherently probabilistic. The latter approach is often used by social judgment theory (SJT) researchers. The majority of SJT studies use Brunswik's (1954) lens model, which is the perspective we follow here. To understand the relationship between alliance competencies and alliance manager performance, we adopted a judgment analysis approach (JA). JA, popularly called policy capturing, is a technique used to analyze judgments of experts related to optimal decisions, processes, and tasks performed by individuals and groups (Holzworth, 2001). JA is based on the lens model pioneered by Brunswik (1954). Represented on the left of the lens model (Brunswik, 1954, 1956) is the criterion (Y_c) and on the right judgments of subjects (Y_s). The degree to which subjects' judgments relate to the ecological criterion (performance) is measured by achievement (r_a). Cues are proximal variables about which subjects make judgments. In this system, cue profiles (X_i) representing cases or situations (real or simulated) for judgment (Y_s) as well as a distal criterion measure or outcome (Y_c) explicitly tied to each cue profile are investigated to determine ecological validity (r_c) and cue utilization validities (r_s). The lens model (with coefficients) is shown in Figure 1.

The correlation between competency cues and subjects ratings is measured by the regression of stability (r_s). It refers to the effects of the judgments of subjects relative to alliance competency cues (i.e., how the judges cognitively evaluate the cues

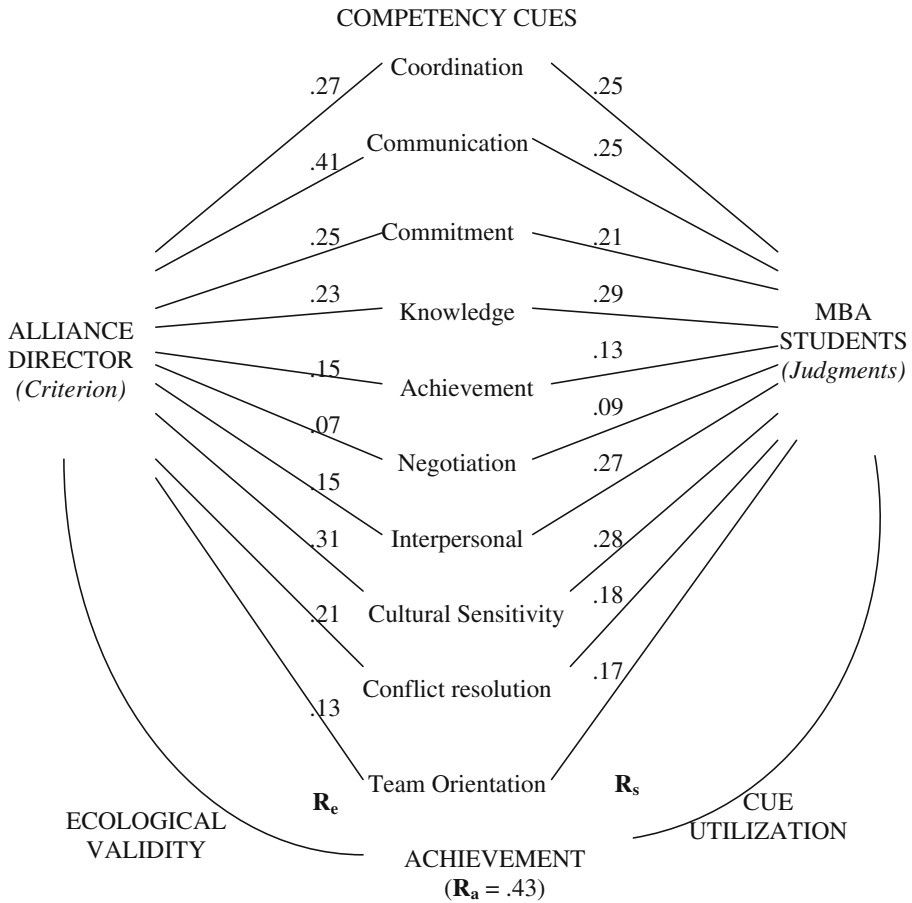


Figure 1 Brunswik's (1954) lens model

specified in the study). The correlation between cues and the criterion is measured by ecological validity (r_e) which refers to the extent to which the judgments of subjects generalize to the real world. In the context of this study, it refers to the evaluations of alliance directors about the competency cues. The relationship between r_s and r_e is estimated by knowledge about the cues. Knowledge (i.e., the judgment policies of subjects or experts) is measured in the lens model equation as G and reflects the degree to which the models for ecology and judgment policies match each of the available cues (Hammond, 2001). Thus, achievement (r_a), the correlation between Y_e and Y_s , subjects' judgments, is a function of r_s , r_e , and G , and is expressed mathematically as $R_a = R_s R_e + C \sqrt{(1 - R_e^2)} \sqrt{(1 - R_s^2)}$, where $C \sqrt{(1 - R_e^2)} \sqrt{(1 - R_s^2)}$ represents the contribution of unmodeled aspects of the ecology and of judgments to overall achievement.

In the context of our studies, competencies as well as affective and behavioral processes of individual alliance managers (i.e., stimuli) can be understood indirectly (using cues) through judgments or perceptions of others about the performance of alliance managers (criterion). This is particularly necessary in both static and

dynamic environments such as strategic alliances (Dussauge & Garrette, 1995). It is also an approach that is recommended when either one of the major components (subjects, measures, or criterion) is difficult to obtain (Cooksey, 1996). When actual measures are not readily available as in our study, representative cues may be used (Schilling & Hogge, 2001). Consistent with previous studies of performance which are based on the lens model (Schilling & Hogge, 2001), we use the lens model to examine the extent to which alliance managers' performance depends on alliance competencies.

Procedure In this laboratory study we investigated the relationship between individual alliance competencies and individual alliance managers' performance. It is generally known that alliance effectiveness depends on groups and individuals responsible for alliance tasks, and the skills, knowledge, and ability of those teams and managers eventually determine alliance outcomes (Spekman et al., 2000). Consequently, we expected the three sets of competencies—structural, functional, and social—to relate positively to alliance manager performance (Hogge, 2001).

Our judgment problem involved using judges (MBA students) to evaluate the relationship between alliance manager competencies and performance. Ecologically, performance of alliance managers contributes to alliance performance (Spekman et al., 2000), and alliance managers are often evaluated by their supervisors in terms of how they perform alliance tasks and processes (i.e., how they contributed to alliance goals and success) (Doz & Hamel, 1998; Lynch, 1993). The judges rated the performance of hypothetical alliance managers. These ratings proxied ecological criteria; they approximated actual performance of alliance managers through the judgments of subjects (Hogge, 2001). Alliance competencies served as cues (see Appendix 1).

We selected ten cues based on psychometric principles of parsimony, reliability, and validity. First, academic and practitioner literatures were reviewed to identify alliance competencies. The following criteria were used. First, a competency had to be applicable to alliances. Second, it had to have cognitive, affective, and behavioral theoretical basis (i.e., trainable qualities). Third, a competency had to have ecological validity. Consistent with McClelland (1998), we interviewed alliance professionals (i.e., alliance directors with over 6 years of experience in alliance management). For the sake of parsimony, we used a content validation technique (Lawshe, 1975) to categorize the competencies. Content validation involves surveying experts about the content of the phenomenon being investigated. Content validation ratios (CVR), which refer to the extent to which experts agree on the content validity of the competency cues, were then computed. CVR is computed as $[(n_e - N / 2) / N / 2]$ where n_e refers to the number of experts that rated the item as essential, and N is the total number of experts. Alliance directors and managers with at least 6 years experience served as experts. Each competency was rated as essential, necessary, or relevant. The content validity ratios (Lawshe, 1975) ranged from 0.7 to 1.0 suggesting that most experts believe there is overlap between the content of the competencies identified through the literature reviews and the content of the clusters, and are consistent with Zoogah and Josephs (2005).

We then developed summaries of ten competency criteria that encompassed all alliance industries. First, we interviewed ten HR professionals from five large

organizations about criteria often used to evaluate performance of managers and supervisors. The professionals were not told about the purpose of the interview (i.e., subsequent use of criteria for alliance manager evaluation). These were summarized and subsequently presented to another set of fifteen alliance managers and ten alliance supervisors (i.e., alliance directors) to rate the extent to which the criteria relate to the performance evaluation systems they use. The final six criteria along with alliance competency cues were used to develop alliance manager profiles. The profiles represented five industries—manufacturing, information technology, financial services, communication, and pharmaceutical. To fulfill the functionalism principle of the lens model (i.e., the extent to which judges achieve goals of making accurate judgments about alliance manager performance), and to establish validity for each of the cues, twelve alliance directors evaluated the performance of the hypothetical alliance managers using the profiles generated after the interviews. Rating criteria of competencies and overall likely performance ranged from excellent (7) to unacceptable (1) with average being 4. Their judgments served as ecological criteria. A similar approach was used by Hogge and Murrell (1994) to evaluate the performance of professional nurses. Overall, ten cues represented alliance competencies. The criterion (see Figure 1) refers to ratings of alliance directors that were obtained prior to the simulation. Consistent with JA research, the unit of analysis was cue profile. There were 300 profiles (i.e., thirty judges evaluated the profiles of ten alliance managers). We then used POLICY PC, a software for estimating lens model parameters (Cooksey, 1996; Schilling & Hogge, 2001) to conduct the analyses.

Study 1: Results

Descriptive and correlation results are shown in Table 1. Competency (i.e., cue) means and standard deviations were generally similar in direction. Correlations of competency cues ranged from $-.45$ to $.58$. Structural competencies correlated

Table 1 Study 1: Descriptive statistics and inter-cue correlations.

Competency cues	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Coordination	5.82	1.5	1									
2. Communication	5.22	1.7	0.58	1								
3. Commitment	3.17	0.9	0.21	0.19	1							
4. KBD*	4.29	2.1	0.5	0.21	0.08	1						
5. Achievement-oriented	3.25	2.1	-0.23	-0.06	0.12	-0.45	1					
6. Interpersonal	4.19	2	0.18	0.1	0.23	0.19	-0.02	1				
7. Cultural sensitivity	2.53	1.5	-0.27	-0.11	0.17	-0.39	0.34	-0.22	1			
8. Conflict resolution	4.7	2.1	0.37	0.2	0.24	0.34	-0.22	0.24	-0.25	1		
9. Negotiation	2.63	1.8	0.25	0.15	0.27	0.27	-0.13	0.16	-0.16	0.43	1	
10. Team-orientation	3.28	1.1	0.28	0.31	0.13	0.11	0.07	0.27	0.14	0.24	0.09	1

*KBD Knowledge of business drivers.

Coefficients greater than .10 are significant at the $p < .05$ level.

positively. For example, social competencies correlated with functional and structural competencies.

In Table 2, ecological validities (r_c) generally ranged from .09 to .45 and cue utilizations (r_s) ranged from .08 to .39. Achievement (R_a), correspondence between the criterion and subjects judgments (R_a), was .56. Lens model validities (R_s , R_c , and G) for each judge were also computed but are not reported due to space constraints here because we were interested in average validities. The correlations of participants' judgments with actual (directors' ratings) performance (r_a) varied from .13 to .33 (median = .23). Generally, judges operated in predictable ecology ($r_c = .75$) since ecological validities (r_c) range from .66 to .86. However, regression of stability (r_s) coefficients ranged from $-.40$ to .36. In other words, participants did not indicate a marked variability in their judgment of actual performance of alliance managers. Further, judges seemed to use a combination of cues (e.g., coordination and communication or communication and cultural competencies) to make judgments as indicated by the regression of stability (r_s) coefficients.

Policy similarity, G , for social competencies ranged from .44 to .67 (median = .55), indicating some variability. However, the policies were positive suggesting that alliance managers with those competencies were more likely to be seen as performing well. Achievement, which refers to the extent to which judgments and criterion values agree, suggests that judges accurately predicted the performance of alliance managers. A positive correlation indicates that MBA managers and alliance directors are not in contrast about the performance of alliance managers. Figure 1 shows this relationship. In Figure 1, beta weights are all positive though some are not significant. A visual inspection shows that both MBA and alliance manager judges show a linear relationship between alliance competency cues and their beta weights.

In sum, the lens model statistics (r_a , r_c , and r_s) and the plots show that alliance competencies seem to relate to alliance manager performance positively. The coefficients of determination (R^2) (not shown in the tables) which ranged from (.26 to .40) also suggest that small to moderate proportion of variance in alliance manager performance could be explained by the judgments of MBA students. Thus, our expectation that alliance competencies will positively relate to alliance manager performance has been largely supported.

Table 2 Study 1: Coefficients of ecological validities, competency cues, and cue utilizations.

Ecological validity (R_c)	Competency cues	Cue utilization (R_s)
.22*	Coordination	.23*
.37**	Communication	.35**
.15*	Commitment	.08
.26*	Knowledge	.19*
.11*	Achievement	.14*
.09	Negotiation	.06
.19*	Interpersonal	.21*
.45***	Cultural sensitivity	.39***
.16*	Conflict resolution	.18*
.24**	Team orientation	.21*
	$R_a = .56$	

* $p < .05$, ** $p < .01$, *** $p < .001$.

Study 1: Discussion

The purpose of Study 1 was to investigate the relationship between alliance competencies and alliance manager performance. The results suggest that alliance competencies relate to alliance manager performance as measured by achievement (r_a). Generally, the ecology and judgment models matched positively. The coefficients ranged from small to moderate. This was probably because judges were students. Nonetheless, several judges had alliance experience and therefore had knowledge of performance of alliance managers. Further, judges used similar policies (G) in evaluating the performance of alliance managers which suggests cross-rater consistency and competency validity. As shown in Table 2, the judges viewed the relationships between alliance competencies and managerial performance positively. The regressions of stability (r_s) suggested that small to moderate proportion of variances in competency cues (R^2) could be explained by performance judgments (not shown). These ranged between .34 and .52.

Overall, we expected three sets of competencies—structural, functional, and social—to relate to alliance manager performance (Hogge, 2001). However, not all competencies are likely to be equally important. In other words, Study 1 did not show *which* competencies are more important. Knowledge of important competencies may help alliance managers focus on developing those high-priority skills (Goerzen, 2005). In addition, it may help in selection and recruitment as well as training and development of alliance managers (Doz & Hamel, 1998) and alliance capability development (Su, Tsang, & Peng, 2009). In order to determine which competencies may be important in alliances, we conducted Study 2.

Study 2: A field study

The purpose of this field study was to examine which competencies alliance supervisors deem important. Study 1 which focused on *general* competencies assumed that alliance supervisors evaluate alliance competencies using similar policies. In other words, they do not differentiate between alliance competencies. However, it is likely that alliance supervisors consider some competencies as more important than others in influencing alliance performance (i.e., *specific* competencies). There are several reasons why alliance organizations may want to know which alliance competencies are more important. First, the knowledge will help alliance organizations develop human capital. Because training and developing of alliance managers are costly, organizations may focus on competencies that seem to relate more to alliance outcomes (Doz & Hamel, 1998; Spekman et al., 2000). Second, such knowledge helps in socialization and performance management of alliance directors and managers. Third, some competencies relate to core tasks of alliances while others provide supportive functions. For example, knowledge of business drivers, a core competency fundamental to all alliances, may be weighted as more important than influence skills which are contextual. Thus, alliance supervisors may evaluate the significance of alliance competencies based on the utility of competencies in relation to performance. They may ask if alliance competencies (1) positively influence performance to a maximal point beyond which the latter

decreases (i.e., inverted U-shape) or (2) negatively influences performance initially to a point before increasing (i.e., U-shaped). These questions are nonlinear functional forms in the lens model. Therefore, we examined the nonlinear function form (i.e., quadratic) of alliance competencies which suggests that competencies may be weighted differently temporally and contextually (Hammond, Stewart, Brehmer, & Steinman, 1975).

Study 2: Hypotheses

We proposed that alliance supervisors may consider communication as more important than other structural competencies. First, communication engenders coordination because alliance managers cannot coordinate without communicating. They have to share information on schedules, financial, and personnel resources. Second, communication minimizes conflicts, leads to constructive dialogue, and provides feedback (Chen & Tjosvold, 2008). Third, communication improves the cohesiveness of managers in alliance teams. In addition, it minimizes problems related to cultural differences (Dong & Glaister, 2007). Further, communication is critical during the life cycle of alliances and “limits the risk that partner expectations will suddenly collapse” (Doz & Hamel, 1998: 189). Finally, communication is more related to learning in alliances; it facilitates knowledge acquisition, safeguarding, and distribution (Doz & Hamel, 1998). Coordination and commitment tend to be stage-bound (i.e., limited to a particular stage of alliances). For example, commitment competencies which seem critical in the implementation stage may not be essential in the termination stage.

Research shows that communication has a curvilinear relationship with performance, especially in team contexts (Patrashkova-Volzdoska, McComb, Green, & Compton, 2003). In a study of the relationship between communication and team performance, Patrashkova-Volzdoska et al. (2003) reported that email and face-to-face communications, the medium through which team members share information required for successful amalgamation, were curvilinearly associated with performance. Further, in a study of project teams, Katz (1982) found that reductions in communication adversely affect group performance. In another study, Katz and Allen (1982: 7) found that “performance increases up to 1.5 years tenure, stays steady for a time, but by 5 years has declined noticeably. This tendency is best accounted for by the marked decline in communication rate among group members and between them and critical external sources of information.”

Even though studies of communication in alliances are lacking, it seems tenable to argue that communication may also have a curvilinear relationship with performance. As partnerships, alliances are characterized by insufficient communication since the members do not know or trust one another, especially during the formation stages of the relationship (Lynch, 1993; Spekman et al., 2000). This situation continues for a period but changes as the parties become very familiar and trusting of one another especially during the implementation stage (Schuler et al., 2004). Consistent with studies that show that lack of communication adversely affects performance, we believe that during the initial stages of alliances, alliance manager performance will be negatively affected. However, it will be positively

affected as alliance managers develop trust and familiarity with increased and qualitative (provision of adequate, useful, and timely) information. Therefore:

Hypothesis 4 Among structural competencies, communication skills will be judged as more important than other structural competencies, and will have a U-shaped form with regard to judgments.

With regard to functional competencies, we proposed that knowledge of business drivers, the basis for which partners form alliance, will be important. Although there are several different motivations for alliances, the fundamental motivation seems to be that alliances would ultimately contribute to partners' performance (Child & Faulkner, 1998; Das & Teng, 2003). In a review of the practitioner literature and content coding of job advertisements of alliance managers ($n = 200$) for the period 1990–2006, Zoogah and Shenkar (2009) found that knowledge of business drivers was the single competency contained in all the job ads. For example, in knowledge (R&D) alliances, ability to generate knowledge occurred more frequently than marketing and sales competencies in the ads.

Empirical research on the relationship between knowledge of business drivers and performance is lacking. However, the literature (Child & Faulkner, 1998; Doz & Hamel, 1998; Lynch, 1993; Spekman et al., 2000) suggests that alliance managers must be able to understand the nature of the business in which the alliance is embedded. Such knowledge may drive their behaviors. For example, their ability to make sense of the dynamics of the alliance is undergirded by knowledge of the business drivers of the alliance (Lynch, 1993). This knowledge may be minimal especially in the initial stages of the alliance but increases during the implementation stages when the parties execute the contractual obligations. As a result, the performance of alliance managers will be low when knowledge of business drivers is minimal but will increase when the latter is high. Therefore:

Hypothesis 5 Among functional competencies, knowledge of business driver will be judged as more important than other functional competencies, and will have a U-shaped form with regard to judgments.

Third, alliance partners have different organizational and national cultures. In international alliances, national cultural differences compound cooperation difficulties (Peng, 2011; Schuler et al., 2004). As a result, cultural sensitivity competencies are likely to aid in resolution of problems arising from cultural differences. In addition, conflict which seems common in alliances can be resolved with conflict resolution skills thereby sustaining alliances. Third, unlike conflict resolution and interpersonal and team orientation competencies, cultural sensitivity competencies are linked to alliance managers' organizations and countries. In other words, cultural sensitivity has importance that extends beyond individual managers and so has greater consequences than other social competencies (Lynch, 1993).

As discussed earlier, cross-cultural competencies facilitate interpersonal interactions in cross-border alliances (Schuler et al., 2004). In a meta-analytic study, Mol, Born, Willemsen, and Molen (2005) found that cultural sensitivity predicted job performance of managers. Even though there is a paucity of empirical studies in the

alliance literature, the cross-cultural and international HRM literatures suggest that cross-cultural skills tend to be viewed as more important than other social competencies (Stroh, Black, Mendenhall, & Gregerson, 2005). In a study of expatriate managers, Jordan and Cartwright (1998) reported that cultural sensitivity was a core competence of relational ability.

It therefore seems that cultural sensitivity may be perceived as very important. Further, we believe it will positively influence performance initially but subsequently negatively affect performance. Because of cultural sensitivity, alliance managers will be careful in relating to alliance managers, executing tasks, and ensuring that interactions are positive and effective. In other words, the likelihood of errors will be low. However, with greater familiarity due to adjustment, cultural sensitivity will negatively influence performance since it slows down alliance managers. This view is consistent with the axiom that familiarity breeds discontent. Therefore:

Hypothesis 6 Among social competencies, cultural and conflict resolution skills will be judged as more important than other competencies, and will have an inverted-U-shaped form with regard to judgments.

Study 2: Method

Procedure We presented ten individual profiles of hypothetical alliance managers to twenty superiors of alliance managers. Because some judges did not rate all ten profiles, 185 profiles were used (as opposed to the 200 theoretically based on 10 profiles × 20 superiors). Individual profiles contained descriptions of competencies (similar to cues in Study 1). Alliance supervisors offered ratings on the likely performance of the hypothetical managers' profiles. Consistent with Brehmer, Hagafors, and Johanson (1980) and Brehmer and Hagafors (1986), alliance supervisors were instructed to specify which competencies they considered important. In other words, they were told to weight each cue (same, twice, or three times) in relation to the other cues.

Analysis We conducted idiographic and nomothetic analysis using hierarchical linear modeling (HLM) in which we specified level-1 (idiographic) and level-2 (nomothetic) models (Schilling & Hogge, 2001). According to social judgment theory (SJT), importance is indicated by the weights judges apply to cues (Cooksey, 1996). Research shows that judges are “able to apply weights to cues with great proficiency” (Brehmer et al., 1980: 373). The idiographic nature of HLM enabled us to evaluate the extent to which judgments of alliance supervisors differed with respect to the weights they gave particular competency cues by examining variability across judges of the linear or quadratic terms for those cues (Schilling & Hogge, 2001). In the idiographic model, the following equation specified the general model for each judge's ratings:

$$\begin{aligned}
 Y_{ij} &= \pi_{0j} + \pi_{1j}\alpha_{1i} + \pi_{2j}\alpha_{2i} + \dots + \pi_{qj}\alpha_{qi} \\
 &\dots\dots\dots + \pi_{q+1j}\alpha_{i1}^2 + \pi_{q+2j}\alpha_{i2}^2 + \dots + \pi_{pj}\alpha_{qi}^2 + \varepsilon_{ij} \quad (1) \\
 \varepsilon_{ij} &\sim N(0, \sigma^2)
 \end{aligned}$$

where Y_{ij} is alliance supervisor (Judge) j 's rating of alliance manager i , a_{mi} is a mean-centered value for competency cue m on alliance manager i , π_{kj} is a judge-specific

regression coefficient, ε_{ij} is random error, and σ^2 is the variance of the random error. The linear terms associated with each cue in the multiple regression models represent each judge's weights for each cue. The models allow for nonlinear cue-rating relationships. So, we included both quadratic and linear terms. Each of the π_{pj} coefficients in the level-1 model became an outcome variable in the level-2 model:

$$\begin{aligned}
 Y_{ij} = & \beta_{0j} + \beta_{1j}X_{1i} + \beta_{2j}X_{2i} + \dots + \beta_{qj}X_{qi} \\
 & \dots + \beta_{q+1j}X_{1i}^2 + \beta_{q+2j}X_{2i}^2 + \dots + \beta_{pj}X_{qi}^2 + r_{ij} \quad (2) \\
 \varepsilon_{ij} \sim & N(0, \sigma^2)
 \end{aligned}$$

where β_{pj} ($p = 0, 1, \dots, Q_p$) were level-2 coefficients, X_{pj} was a level-2 predictor, and r_{pj} was a level-2 random effect.

Study 2: Results

Participants for this study (15 males, five females) ranged in age from 37 years to 53 years. Twelve of them had experience with bilateral alliances, and eight had experience with multilateral alliances. Table 3 shows descriptive statistics.

Cue variances range from $-.04$ to $.37$ with standard deviations ranging from $.05$ to $.61$. Means of competencies ranged from 58.2 to 10.43 . Standard errors were

Table 3 Study 2: Parameter variances, standard deviations, mean, and standard error.

Parameter	Variance	Std. dev	Mean	Std. error
Intercept	2.63000	1.62000	101.300	0.0935
Coordination	0.37210	0.61000	58.200	0.0352
Communication	0.04410	0.21000	52.200	0.0121
Commitment	-0.04140	0.19000	42.900	0.0110
Knowledge	0.01960	0.14000	32.500	0.0081
Achievement	0.01210	0.11000	41.900	0.0064
Interpersonal	0.00810	0.09000	25.300	0.0052
Cultural Sensitivity	0.00640	0.08000	47.230	0.0046
Conflict resolution	0.00490	0.07000	26.300	0.0040
Negotiation	0.00360	0.06000	34.780	0.0031
Team orientation	0.00292	0.05400	27.980	0.0031
(Coordination) ²	0.00533	0.07300	19.800	0.0042
(Communication) ²	0.00423	0.06500	16.700	0.0038
(Commitment) ²	0.00384	0.06200	10.430	0.0036
(Knowledge) ²	0.00270	0.05200	13.200	0.0030
(Achievement) ²	0.00185	0.04300	19.200	0.0025
(Interpersonal) ²	0.00044	0.02100	16.400	0.0012
(Cultural sensitivity) ²	0.00036	0.01900	18.300	0.0011
(Conflict resolution) ²	0.00040	0.02000	14.700	0.0012
(Negotiation) ²	0.00026	0.01600	19.650	0.0009
(Team orientation) ²	0.00014	0.01200	21.340	0.0007

generally low (.00 to .03). To examine the fit of the model, in Table 4, we examined a series of models beginning with the most elaborate model (Model 1 which contained all linear and quadratic fixed and random effects), and nested models (Models 2, 3, and 4). Specifically, we fitted a baseline Model 1 with all linear and quadratic fixed and random effects. Next, we fitted Model 2 with all hypothesized competencies cues as fixed effects. Then, Model 3 with hypothesized cues as random plus all fixed effects was fitted. In Model 4, we deleted cue 7 because it was not significant in Model 3. Finally, in Table 5, Model 5, containing hypothesized competency cues as random, plus all linear effects and quadratic effects for non-hypothesized competency cues 2, 4, 7, and 8, was fitted. The significance of a decrease in maximum log-likelihood (MLL) was tested with the likelihood ratio chi-square difference between the two models (i.e., first and second, second and third, third and fourth, and fourth and fifth).

Although both MLL and Akaike information criterion (AIC) were computed, MLL was treated as the primary criterion on which to base significant tests (Schilling & Hogge, 2001). All fit indices (MLL and AIC) showed significant decreases. Chi-square difference tests (MLL) showed a significant reduction for the first ($\chi^2 = 44.2$ df = 6; $p < .001$), second ($\chi^2 = 17.8$, df = 8; $p < .05$), and third ($\chi^2 = 170.0$, df = 10; $p < .000$). A chi-square difference test of Models 4 and 5 was also significant ($\chi^2 = 14.2$, df = 12; $p < .05$).

Random effects (Table 5 Panel A) show variances and standard deviation of hypothesized competencies. Correlations among random effects (Panel B) show that hypothesized cues correlate positively and moderately. Fixed effects (Panel C) show coefficients, standard error, t-ratio, degrees of freedom, and significance test value. It also includes results of nomothetic analysis—“expression of each regression weight for each judge and the average level of the corresponding linear or quadratic term over all judges” (Schilling & Hogge, 2001: 34). The significance tests for the fixed effects (Panel C) show that the quadratic effects for cues 1 and 5 are not significant. Cue 2 ($t = 2.28$, df = 17; $p < .001$) is marginally significant. Cue 4 ($t = 6.31$; df = 17; $p < .001$), cue 6 ($t = 7.23$, df = 17; $p < .001$), and cue 7 ($t = 3.10$, df = 17; $p < .001$) are significant. Thus, the judgment model for a supervisor of an alliance manager may therefore include the intercept and functional forms for all the hypothesized

Table 4 Study 2: Hierarchical linear model comparisons.

Model		MLL ^a	$\Delta(\text{MLL}) \chi^2$ ^d	AIC ^b	BIC ^c
1	All random and fixed effects	-1034.3		2343.7	2456.2
2	Cue 2, 4, 7, 8—fixed effects	-1012.2	44.2**	2152.2	2402.3
3	Cue 2, 4, 7, 8 random—all fixed effects	-1003.3	17.8*	2128.9	2378.4
4	Cue 2, 4, 7, 8 random—all linear effects, quadratic effects for 1, 3, 5, 6	-918.3	170.0***	2043.8	2073.4

Cue 2, 4, 7, 8 refer to communication, knowledge, cultural sensitivity, and conflict resolution competencies respectively.

^a Maximum log likelihood.

^b Akaike information criterion.

^c Bayesian information criterion.

^d Based on Schilling and Hogge (2001).

Table 5 Study 2: Parameter estimates for Model 5.

A. Random effects					
	Variance	Std. dev			
Intercept	10.4976	3.24			
Communication	1.2544	1.12			
Knowledge of business drivers	0.7569	0.87			
Cultural sensitivity	0.0036	0.06			
Conflict resolution	-0.0414	0.04			
Residuals	0.1156	0.34			
B. Correlations among random effects					
	Intercept	Communication	Knowledge	Cultural sensitivity	Conflict resolution
Communication	0.96				
Knowledge of business drivers	0.87	0.56			
Cultural sensitivity	0.91	0.62	0.49		
Conflict resolution	0.92	0.43	0.58	0.61	
C. Fixed effects parameter					
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>df</i> *	<i>p</i>
Intercept	4.32	0.123	43.00	164	0.00
Coordination	0.87	0.062	8.70	164	0.03
Communication	5.87	0.057	18.20	164	0.00
Commitment	1.67	0.052	11.12	164	0.02
Knowledge of business drivers	1.02	0.047	7.43	164	0.00
Achievement	0.96	0.044	5.30	164	0.00
Interpersonal	3.92	0.041	1.18	164	0.07
Cultural sensitivity	2.34	0.038	6.30	164	0.01
Conflict resolution	1.68	0.034	8.45	164	0.00
Negotiation	1.86	0.064	1.30	164	0.09
Team-orientation	2.92	0.021	1.81	164	0.08
(Coordination) ²	2.34	0.038	6.30	164	0.01
(Communication) ²	0.54	0.007	1.28	164	0.00
(Commitment) ²	0.18	0.004	0.31	164	0.05
(Knowledge) ²	0.15	0.005	1.02	164	0.00
(Achievement) ²	0.13	0.021	0.11	164	0.09
(Interpersonal) ²	0.11	0.011	1.23	164	0.00
(Cultural sensitivity) ²	0.29	0.008	0.10	164	0.07
(Conflict resolution) ²	0.06	0.014	1.01	164	0.00
(Negotiation) ²	0.13	0.021	0.11	164	0.09
(Team orientation) ²	0.15	0.11	1.23	164	0.20

*The degrees of freedom are calculated by taking the number of level-two units (profiles) and subtracting the number of explanatory variables included at level two plus one. In this case, twenty linear and quadratic variables were included at level two. So, $df=185-(20+1)=164$.

competencies (communication, knowledge, cultural skills, and conflict resolution skills)—shown in Figure 2.

Communication competency shows a clear U-shaped pattern with respect to importance. Some judges considered communication skills highly important but

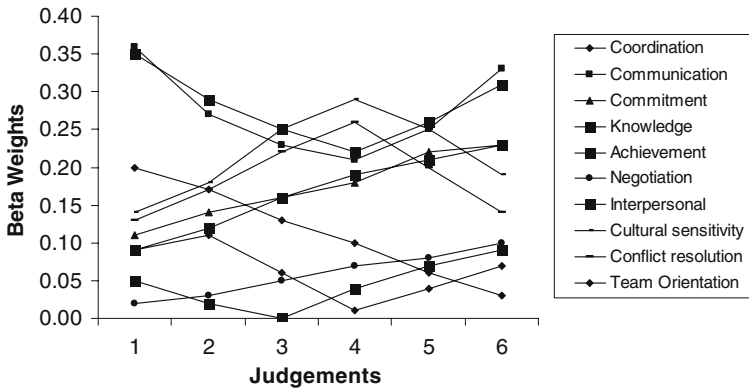


Figure 2 Functional forms of competencies: Study 2

others did not. Nonetheless, all judges viewed communication competency as more important than commitment and coordination competencies. The latter competencies do not show a similar pattern. Thus, Hypothesis 1 is supported. Achievement and negotiation competencies show a linear relationship rather than a curvilinear one. Thus, Hypothesis 2 which predicted a U-shaped pattern is supported. In socio-cultural competency judgments (i.e., interactional), the importance of team orientation competency seems to show a sigmodal pattern with respect to judgments. However, the hypothesized competencies, cultural and conflict resolution competencies, show patterns consistent with the hypothesized patterns (i.e., inverted U-shaped). Cultural competencies seem to have been deemed more important than all the other competencies followed by conflict resolution competencies. However, no clear pattern exists for interpersonal and team orientation competencies. Thus, Hypothesis 3 is supported.

Additional evidence for the hypothesized patterns is shown in Model 4 (Table 4) where quadratic analysis of non-hypothesized patterns is not significant, and Model 5 coefficients (Table 5) where hypothesized competencies—communication, knowledge of business drivers, conflict resolution skills, and cultural sensitivity—seemed more important than other structural, functional, and social competencies respectively. Thus, there is reasonably strong support for Hypotheses 1, 2, and 3.

Study 2: Discussion

This study examined the importance of alliance competencies in relation to performance of alliance managers. The results suggest that communication, knowledge of business drivers, cultural, and conflict resolution competencies were more important (Lin & Germain, 1998; Palin, 1996). Although there are competencies (such as commitment and achievement) that have been deemed important in conventional firms, we do not find them to be important in this study. One probable reason is the unique context of alliances. This finding further supports the assertion about the *specificity* of alliance competencies. Another reason may be inapplicability of certain tasks that fit those competencies. For example, negotiation skills were not judged as important. However, negotiation skills tend to be useful in pre-formation (i.e., partner selection) stages. We suggest future research to examine this question.

General discussion

Contributions

In response to the call (often from macro-level researchers) for more micro-level probes into strategic alliance dynamics, we have endeavored to answer a crucial but previously unanswered question: “What determines the performance of strategic alliance managers?” Four contributions—two theoretical and two empirical—emerge. The first theoretical contribution is proposing the functional form of alliance competencies and performance of alliance managers. In the alliance literature, the relationship tends to be linear; in this article we proposed it as *nonlinear*. Unless we assume that alliance managers are not different from traditional managers, which is counter to the conceptual and practitioner literatures (Bamford et al., 2003; Doz & Hamel, 1998; Lynch, 1993; Spekman et al., 2000), we cannot but consider the findings of this study as significant. Firms that desire to gain competitive advantage through alliances may have to focus on developing competencies of managers responsible for alliances (Doz & Hamel, 1998; Schuler et al., 2004). Indeed, judges in both studies show similar judgment policies about this need. As shown in Figure 3, judges from Study 1 (Judgment A through F) and Study 2 (Judgment 1 through 6) show a consistent pattern with regard to the importance of communication, knowledge, cultural sensitivity, and conflict resolution competencies. A similar pattern was observed with other competencies.

The second theoretical contribution relates to the argument that alliance supervisors evaluate alliance competencies differentially. This may be due to different cognitive processes such as mental models or heuristics. Because heuristics of executives influence strategic decisions, it is likely that similar heuristics may be influencing supervisors’ evaluations. It is also likely that mental models (i.e.,

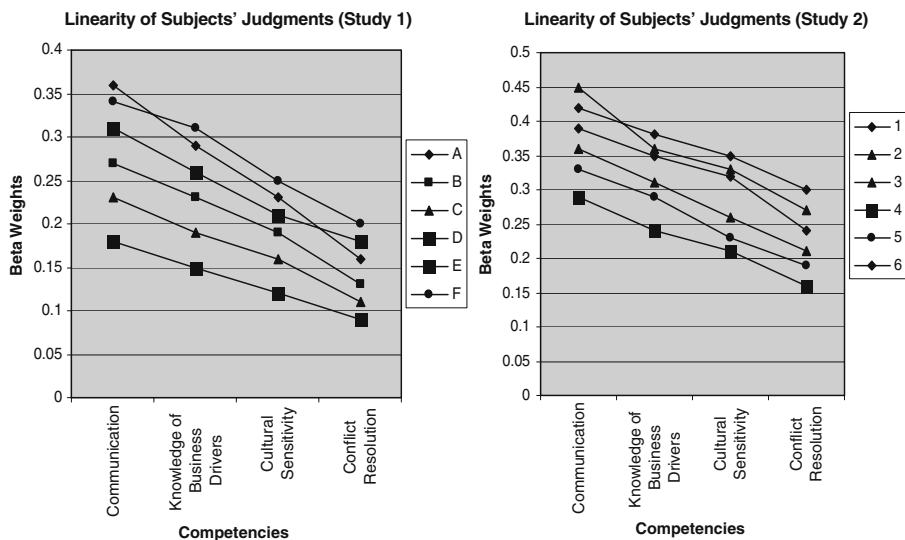


Figure 3 Similarity profiles of selected competencies by selected judges: Studies 1 and 2

cognitive representations of performance) of managers may be influencing their views of the relationship of alliance competencies and performance (Lambe, Spekman, & Hunt, 2002). Until now, we either assumed, based on similar observations in traditional organizations, that supervisors of alliance managers did not differ from managers of traditional organizations or adopted wholistic approaches (i.e., considered all competencies as important). Our findings suggest that alliance supervisors differentiate alliance competencies by focusing on those that have proximal relationship with performance.

Empirically, first, we identify some competencies to be more important and may be more important to alliance outcomes. The second empirical contribution relates to performance management systems of alliances. The functional patterns depicted in Figure 2 (i.e., U-Shaped, inverted-U-shaped, and sigmodal) suggest that the importance of alliance competencies may be context-dependent. Overall, our findings suggest that strategic alliances are influenced by the psychological processes of individuals involved in establishing, implementing, and managing the alliances. Further, the findings seem to show that cognitive processes (e.g., knowledge) in strategic alliances depend on individual characteristics (i.e., competencies) of alliance managers.

Practical implications, limitations, and future directions

Our findings also have implications for practice because alliances without the requisite training often have less than satisfactory performance (Doz & Hamel, 1998; Sanchez, 2001). Another implication is that alliance partners have to design selection programs to recruit and select applicants with the requisite alliance competencies and personality profiles. As firms increasingly develop dedicated alliance functions (Goerzen, 2005; Kale et al., 2002), effective recruitment and selection of individuals with the requisite competencies seems essential. Nonlinear relationships have performance evaluation implications for alliance management if organizations desire to minimize withdrawal behaviors that could negatively influence alliance outcomes because of “inappropriate” evaluations. The importance of cross-cultural competencies can be used in training managers for individuals working in cross-border alliances, especially in emerging economies. Such competencies will facilitate effective interaction in foreign countries (Meschi, 2009).

Our studies have at least four limitations, which suggest a number of future directions. First, a true micro-macro link (Peng & Luo, 2000) needs to establish the relationship between the micro-level performance of alliance managers and the macro-level performance of strategic alliances (or even that of parent firms). While our studies provide a crucial foundation, we have not been able to establish such a link due to our lack of data on the performance of strategic alliances. Future work needs to push further in this direction. Second, even though we used a multilevel approach in Study 2, we did not include teams. Firms are increasingly using teams to manage alliance activities (Lendrum, 2000; Zoogah et al., 2010). As alliance networks and portfolios increase, alliance team performance may therefore seem critical. How alliance managers’ competencies influence alliance team performance should therefore be examined in future work. Third, the number of judges in both studies was small. However, the unit of analysis (i.e., the competency profile) was

adequate to detect significant effects (Cooksey, 1996). Fourth, cost and time constraints prevented us from conducting a longitudinal study. A longitudinal study would be useful in showing how competencies and performance change over time as conditions change. From a performance management perspective, such knowledge may contribute to accurate evaluation of performance of alliance managers.

Finally, our studies differ from traditional policy-capturing studies in one major way. Even though both derive from Brunswik's (1956) lens model, traditional policy-capturing studies are single-lens models while our studies are double-lens model systems (Cooksey, 1996). The criteria from alliance directors enabled us to use the double-lens model. Thus, our studies improve upon traditional policy-capturing studies.

Conclusion

Based on two studies drawing on the lens model, this article has taken on an important but little explored question: "What determines the performance of strategic alliance managers?" The answer, in a nutshell, suggests that it is structural, functional, and social/interaction competencies that drive the performance of strategic alliance managers. More specifically, certain competencies (such as communication and cultural sensitivity) are more important drivers of alliance manager performance than others. Overall, our findings show that alliance manager performance may be predicted by alliance competencies. By leveraging and extending the OB and HR literature on competencies, we have responded to the increasingly frequent call—often from macro, strategy researchers—for more micro-level probes into the drivers of strategic alliance dynamics. In conclusion, given that such micro-level issues as management competencies tend to be ignored in existing macro-level alliance research, a micro-macro link cannot be established without the foundational understanding that we have endeavored to enrich through this article. In short, it is time to put the "management" back into "alliance management."

Appendix 1

Study 1: Example of performance criteria for an alliance manager.

Competency		Criteria
Coordination	4	Good
Communication	7	Excellent
Commitment	6	Very Good
Knowledge	7	Excellent
Achievement Orientation	5	Very good
Interpersonal Understanding	6	Outstanding
Cultural Sensitivity	4	Good
Conflict Resolution	6	Outstanding

Competency		Criteria
Negotiation	3	Average
Team Orientation	5	Excellent
Overall Performance	6	Outstanding
(Please circle one)	5	Very good
	4	Good
	3	Average
	2	Below average
	1	Unacceptable

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