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From “me against you” to “us against them”: alliance formation based on inter-alliance rivalry

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Abstract

This article investigates and integrates the concepts of alliance competition and inter-alliance rivalry. While past research has focused primarily on intra-alliance dynamics such as why, when, and with whom alliances are formed, the outcome of such agreements is unclear. This paper focuses on inter-alliance dynamics that involve conceptualizing group-versus-group or alliance competition and inter-alliance rivalry by studying the competitive engagements of firms through alliances. We develop a model that includes a set of market and firm-specific variables that can explain alliance competitive engagement.

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1. Introduction

The rapid proliferation of alliances has ushered in not only new era of cooperation among companies big and small but also a new era of competition between alliances. Cooperative agreements have become an integral part and cornerstone of competitive strategies. “Competition through cooperation” has become the mainstay of a firm’s attempt to gain financial and survival advantages. The virtual

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explosion of cooperative agreements on a worldwide basis has led to a new form of competition: group versus group rather than company versus company (Gomes-Casseres, 1994).

That collaborative rent-seeking behavior (Lado, Boyd, & Hanlon, 1997) has become a competitive necessity is no longer disputed. But that collaborative rent-seeking behavior has competitive implications, in that firms adopt collaborative arrangements for similar competitive gains such as increased market share, improved cost structures, or enhanced capabilities, remains largely unexplored. It is now commonplace to see one group of firms in an alliance competing with another group of firms in another alliance. Consider the following examples: MCI Communications Corporation formed a joint venture with British Telecommunications (BT) in response to AT&T's expansion of long-distance service into the international market through alliances. Also, when MCI formed an alliance with the Mexican company Grupo Financiero Banamex, firms such as AT&T and Sprint responded in kind by forming their own partnerships. Specifically, AT&T formed an alliance with Grupo Alpha and Sprint formed an alliance with Texmex. The deregulation of the telecommunication industry has also led to an expansion in the interactive telecommunications media market. For example, Creative Artists Agency and Bell Atlantic Corporation formed an alliance, as did Nynex Corporation and Pacific Telesis Group. In response, Bell South, Ameritech, SBC Communications, and Disney formed a joint venture to develop, market, and deliver video programming to customers. Finally, the announcement of the Star Alliance (United, Lufthansa, Scandinavian Airlines, Air Canada, and Thai Airways) sent nonmembers scurrying for partners (Air France with Air India and American Airlines with the Aerolineas Argentinas).

These examples demonstrate that an action (i.e., alliance formation) does induce a reaction (i.e., alliance formation response) under certain competitive conditions. This new form of alliance-based competition and inter-alliance rivalry has unfortunately received scant attention in the literature on competitive analysis and strategic alliances. In view of this, the goal of this paper is to develop a model of alliance-based competition that identifies what it is about an alliance formation that elicits or averts an alliance competitive response. In other words, we seek to identify specific antecedent conditions that serve as necessary and sufficient factors for the onset of an alliance-competitive battle (i.e., an alliance action that elicits an alliance response).

In general terms, the importance of exploring the integration of competitive analysis and the prediction of rivalrous behavior is that it gets to the heart of what makes an alliance effective from a competitive perspective. Understanding alliance-based competition and inter-alliance rivalry is necessary because of the potential for achieving synergies of scholarship from the dynamic interplay between the concepts of competition and cooperation. From a managerial perspective it is important to recognize that focusing exclusively on intra-alliance dynamics (i.e., trust, dependence, governance, structuring, and management) offers only a partial slice of reality in the use of alliances to build a competitive advantage (Lado et al., 1997). It is equally important to recognize that an alliance is more likely to be competing against

another alliance, and that building and sustaining a collaborative advantage requires a thorough understanding not only of the internal alliance process but also of the external competitive implications of alliances. Finally, it is crucial to acknowledge the growing difficulty associated with initiating actions independently (the focus of competitive analysis) and the rapid growth of cooperative agreements among firms for pre-competitive and post-competitive purposes. For instance, research has shown an increasing use of alliances for innovation (Hagedoorn, 1993; Powell, Koput, & Smith Doerr, 1996), market penetration (Contractor & Lorange, 1988), speed of entry (Kotabe, Sahay, & Aulakh, 1996), and knowledge acquisition (Kogut, 1988; Nohria & Garcia-Pont, 1991).

We ground our arguments in the emergent process perspective (e.g., Chaffee, 1985; Mintzberg, 1990; Mintzberg & Waters, 1985), which maintains that the environment is dynamic and uncertain. Because of this, strategies can and do change to fit situations as they unfold over time. This perspective also argues that while a firm desires to be the master of its own destiny, there are many uncontrollable factors that must be considered and that will influence strategic choices. Hence, from the standpoint of this article, the conditions that validated the use of “going it alone” change, making it necessary to collaborate with others in order to regain an element of control as well as to remain competitively viable. While an alliance strategy may not have been initially planned by a firm, the enactment of an alliance by a direct competitor changes the competitive landscape, forces the firm to critically evaluate itself and its rivals and, under certain conditions, makes an alliance formation response necessary. What emerges from this alliance response is a new form of competition—group versus group.

Before presenting the assumptions underlying our framework, we would like to offer a prefatory definition of alliances, alliance competition, and inter-alliance rivalry. *Alliances* include any contractual partnership established with a view to exchanging or combining the resources and skills of two or more firms to develop, manufacture, or distribute goods or services (Burgers, Hill, & Kim, 1993). Alliances can be unidirectional or bi-directional (Gulati, 1995), vertical or horizontal. They can take the form of licensing agreements, technology transfers and exchanges, R&D, manufacturing, and marketing arrangements, or joint ventures.

Alliance-competition is defined as groups of alliances operating in similar markets, offering competing products and services, and targeting similar customers (Chen, 1996) while vying for a limited pool of resources (Baum & Korn, 1996, p. 255). In other words, competition is a process that occurs when an alliance formation has competitive implications for members of an industry or market.

Inter-alliance rivalry is defined as the degree of external competitive tension between individual alliances that precipitates rivalrous rent-seeking exchange behaviors (i.e., alliance actions and responses) to gain a competitive advantage (Chen, 1996; Chen, Smith & Grimm, 1992). Stated otherwise, alliance rivalry exists when competitors consider the actions and characteristics of each other in business decisions as they strive for potentially incompatible positions (Baum & Korn, 1996).

Given these definitions, the focus of this research is on firms' execution of within-market, cross-market, and cross-border competitive moves and counter-moves

through alliances. While competitive behavior can occur at many levels of analysis (e.g., firm, group, or industry), a pair-wise action/response level of analysis is necessary and appropriate because “it is at this level that actual competitive engagement occurs, in which competitors enact their strategies, test their opponents’ mettle and capabilities, define their reputations, and signal their toughness, via their response or lack of responses” (Chen & MacMillan, 1992, p. 541). Further, this pair-wise focus is important if we are to integrate competitor analysis and inter-alliance rivalry, as well as investigate and understand how and why specific competitive conditions emerge and lead to alliance formation responses (i.e., competitive dynamics).

2. Assumptions and scope of the study

Several assumptions limit the scope of this paper. In order to derive a means of exploring the competitive dynamics of cooperative ventures, we view alliances as competitive actions initiated by firms to secure a short-term or long-term competitive edge. While numerous motivations exist to explain why alliances are formed—such as to improve efficiency, gain access to foreign markets, or learn from partners (Kogut, 1988)—the means are geared toward the end objective of competitive superiority. However, a discussion of the full range of relationships between the focal firm and its various stakeholders, such as relationships subsumed under other relationships (as informed by network theory), exceeds the scope of this article.

We also assume that an initial business condition causes two or more organizations to explore the possibility of forming a cooperative alliance. Furthermore, this paper focuses only on for-profit strategic alliances. The study excludes nonprofit organizations because their motive for forming alliances often has more to do with enhancing the quality of their services than with combating competitive rivalry.

Throughout the paper we explore the competitive dynamics between firm A, which has formed an alliance, and firm B, which has the potential to form an alliance, as well as assume that firm A and firm B do not form an alliance with each other. While this condition does not necessarily concur with reality (competitors cooperate in certain areas and compete in others), we believe that it is acceptably sufficient and does not impede our central purpose of developing arguments about the dynamic interplay between an alliance action and an alliance response. Finally, we assume competition is an objective phenomenon largely influenced by the rational behavior of firms aware of, and interested in, initiating and responding to alliance formations. That is, the focus is on intended alliances, those resulting from the purposive actions of firms (Kogut, 1991) that can be either reactive to a variation induced by an action within an environment, or proactive, forestalling unpredictable behavior by other organizations (Bresser & Harl, 1986).

Given that there is competitive asymmetry, we offer a number of propositions that use cooperation and competition within shared markets to predict competitive responses. In this paper we consider actions (alliance formations) and responses

(separate alliance formations) as manifestations of collaborative rent-seeking behavior among firms. For instance, if company A forms an R&D alliance with company C, company B has two options: collaborate with company D for R&D purposes or continue competing independently. However, to maintain the focus on inter-alliance rivalry we consider only those responses that are likely to involve some form of cooperation.

3. Background literature

Research on alliances has made significant progress in exploring the question of why and when alliances are formed (Kogut & Zander, 1993; Powell & Brantly, 1992). More recently, research has advanced our understanding of “with whom” firms are likely to form alliances (Gulati, 1995). Finally, while research investigating alliance-based competition has focused largely on the moves and counter-moves from the perspective of a single focal firm, research on alliance dynamics has focused more on *intra-alliance* dynamics, including the performance/financial benefits of alliance formation as well as issues of trust, opportunism, partner rivalry, governance, structuring, and management (e.g., Gulati, 1995; Hagedoorn, 1993; Hill, 1990).

In examining the relationship between competition and cooperation, research (with the exception of the strategic behavior approach) has thus, drawn attention primarily to the internal characteristics of the alliance, arguing that it is important to acknowledge the mixed motive nature of alliances and its implications for dependence, trust, and mutual benefit (Singh & Mitchell, 1996). Although this approach has served to considerably advance our understanding of the internal process of alliance dynamics, it does less to improve our current understanding of the external competitive implications of alliance relationships. That is, despite its insightful focus on the alliance, this line of research has been primarily introspective and has not yet begun to incorporate in its research domain the external competitive environment in which the alliance competes.

Our goal is to extend this research and examine the external competitive implications of alliance formation in the hope of building a bridge between competition and cooperation. We draw insights from the rich literature on competitive interaction, which includes the work by Chen et al. (1992), Chen and Hambrick (1995), Chen and MacMillan (1992), to develop an integrative framework of mechanisms that drive the intensity of alliance rivalry; one that involves a series of moves and countermoves initiated through alliances to improve competitive positions. To this end, this article seeks to answer a number of fundamental questions. If firm A forms an alliance, what are the external implications? Given that there is a quid pro quo relationship, what are the conditions that influence the likelihood of an alliance response by firm B? For what reasons and under what conditions does alliance rivalry between a group of firms arise? An understanding of such antecedent considerations is vital if cooperative agreements are to be sustained or not destroyed by competitive countermoves. Further, this analysis should aid in

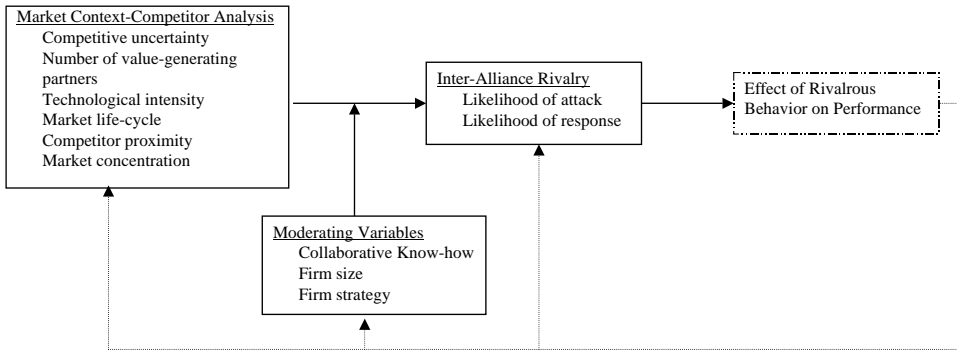


Fig. 1. An Integrated Framework of Alliance Competitive Analysis and Inter-Alliance Rivalry.

predicting rivalry between groups of firms as each search for a means to defend or gain a competitive position within its industry.

We advance formal propositions through an investigation of distinct market and firm-specific characteristics that are likely to influence alliance competition and inter-alliance rivalry (see Fig. 1). Based on an assessment of these attributes, certain conditions lead the focal firm to modify its strategic behavior by forming an alliance of its own. Ultimately, this process of attack and counterattack has performance implications that feed back to influence future actions and responses between the alliances.

4. Propositions

4.1. Market context

Past research has documented the role of specific industry and market characteristics in shaping the frequency and pattern of inter-firm alliance agreements (Auster, 1992; Hagedoorn, 1993; Harrigan, 1988; Porter & Fuller, 1986). In the ensuing discussion we examine the impact that the following variables—based on a general consensus among past research—have on the relationship between the operating environment and inter-firm alliance formation: competitive uncertainty, the number of value-generating partners, technological intensity, market concentration, industry life cycle, and competitive interconnectedness in shaping alliance-based competition.

Competitive uncertainty. Competitive uncertainty stems from the interdependence or interconnectedness existing between competitors (Burgers et al., 1993; Chen, 1996) and reflects the extent to which the fates of competing firms are tied to each other. In other words, competitive uncertainty results from a firm's inability to predict the effect of a competitor's strategic move (i.e., alliance formation) on the firm's market position, anticipated returns, or access to raw materials and

distribution channels. In this context it is argued that any change in one or more factors should influence the likelihood of a response from rivals (Chen, 1996).

In the context of blurring industry boundaries and the rising incidence of inter-industry competitors, research has documented the emergence of inter-industry competitive uncertainty (Dussauge, Hart, & Ramanantsoa, 1992; Kotabe et al., 1996). It has been argued that because the attacking firm cannot predict whether there will be a response or what the response will be, it enters into an alliance to reduce the number of competitors (e.g., Contractor & Lorange, 1988; Kogut, 1988) as well as to respond proactively to uncertainty (Kogut, 1991).¹ Bresser and Harl (1986, p. 411) argue that collective strategies serve to minimize decision making uncertainty because the “couplings provided by market mechanisms (which link the fates of business firms) have been weakened for a subset of organizations which now cooperate”. Based on the above discussion we propose the following argument:

P1. The greater the competitive uncertainty, the greater the likelihood that firm B will form an alliance in response to firm A's alliance formation.

Number of value-generating partners. It is widely acknowledged that scarce resources play a significant role in shaping and influencing competition in the market (Chen, 1996; Hamel & Prahalad, 1994; Porter, 1986; Prahalad & Hamel, 1990). Problems occur when resources are scarce or widely dispersed and when survival depends upon the frequent occurrence of complementary resource exchanges between firms. The ability to extract maximum rent from resource exchanges is often conditioned by a firm's ability to find a partner with complementary resources and relational compatibility (Dyer & Singh, 1998). As the rate of alliance formation accelerates, the number of available firms will decrease, other things being equal.

If the incentive is to find the right partner and if many partner firms are available (within the industry, among suppliers or distributors, or in related industries) then a firm will have limited incentive to rush into an alliance. Yet research suggests that a company that initiates an alliance action early on clearly has an advantage over potential respondents. First movers are able to capitalize on the most desirable partners from the available, yet scarce, pool of members (Gomes-Casseres, 1996; Grant & Baden-Fuller, 1995). Moreover, a smaller number of value-generating partners available in the market may cause fewer in-kind responses to be elicited from competitors.² However, scholars also state that while firms that enter the alliance race first have the largest number of firms from which to choose partners, they have also been observed to form alliances at short notice and with minimal planning (Gomes-Casseres, 1994), often in conditions of market and technological uncertainty. Negative results often include lock-in effects such as inflexibility, low organizational adaptability, and increased impact of endogenous disturbances

¹See *The Alliance Advantage: The Art of Creating Value for Partnering* (Doz & Hamel, 1998) for a description of such alliance races.

²Doz and Hamel (1998) argue that getting the “first-order challenge” (combining specialized technologies) and the “second-order change” (integrating complex technologies into new product/services) right the first time enables the first mover to greatly reduce the number of second-order solutions in competing for the future. This in turn requires forging partnerships with the right value-generating partners.

(Bresser & Harl, 1986). These lock-in costs could ultimately outweigh the alliance's benefits.

In contrast, if potential partners were scarce, a firm would have little incentive to wait and see the impact of its competitor's choice of partner(s). Late-comers face the tangible risk of not being able to find compatible partners with complementary resources to create rents (Dyer & Singh, 1998). In other words, scarcity of partners raises barriers to response by foreclosing on any additional opportunities to create value by sharing knowledge, risk, technology, and so forth. Thus, the firm will respond quickly in an attempt to offset a competitor's advantage and, perhaps, gain a new strategic advantage.

P2. The smaller the number of value-generating partners available in the market, the greater the likelihood that firm B will form an alliance in response to firm A's alliance formation.

Technological intensity. The current climate of industry convergence and blurring industry boundaries has been partially attributed to the substantial value-addition in products early in the value chain as well as to the flow of technology among industries and the increased rate of technological change (Kotabe et al., 1996). In fact, Auster maintains that "rapid technological change has created complex products with shorter product life cycles, making competitive positioning difficult to achieve or sustain" (1987, p. 4). Statements such as these suggest that technological intensity has not only increased the asymmetries between a firm's knowledge domain and product domain but also provided an incentive for firms to form alliances (Grant & Baden-Fuller, 1995).

Indeed, past research has widely documented the use of alliances to gain access to technology-related competencies and resources as well as to mitigate the risk and costs of commercializing complex, untested, technologically intensive products (Contractor & Lorange, 1988; Doz & Hamel, 1998; Hagedoorn, 1993; Singh, 1995). A consensus among researchers evaluating the prevalence of alliances under technologically intense and changing circumstances is that, as an option, alliances represent the best means of coping with daunting technological challenges (e.g., Auster, 1992; Badaracco, 1991; Hagedoorn, 1993; Kotabe et al., 1996; Singh, 1995). In fact, it has been shown that incumbents that rely on internal development and stand-alone entry in markets with high technical uncertainty face a greater likelihood of competitive disadvantage (Hamel, Doz, & Prahalad, 1989; Mitchell & Singh, 1992). Therefore, one can argue that technological intensity would be a powerful motivator for firms to respond quickly to their competitors' alliance formation (Kotabe et al., 1996). Through an alliance the responding firm can more efficiently access, integrate, and implement new technological capabilities and competencies that might offset the advantage initially garnered by the action-taking firm's alliance.

P3. The greater the technological intensity of the industry, the greater the likelihood that firm B will form an alliance in response to firm A's alliance formation.

Market life cycle. A great deal of research has been devoted to the evolution of markets (e.g., Auster, 1992; Harrigan, 1985; Miller & Friesen, 1984; Porter, 1980). Though labels may vary, the literature identifies four common stages of market

development: birth, growth, maturity, and decline. Within a market, each stage reveals different technological, environmental, and competitive conditions (Auster, 1992). It has been argued, both theoretically and empirically, that this evolution does influence the frequency and pattern of cooperative agreements linked to a firm (Auster, 1992; Cainarca, Colombo, & Mariotti, 1992; Harrigan, 1988). More specifically, research has shown that the introduction stage of a market (Auster, 1992) or technology (Cainarca et al., 1992)—which is typically characterized by extreme uncertainty and a need for adaptive efficiency—is associated with, at best, a higher frequency of R&D agreements (Auster, 1992). As firms are competing for ideas, product concepts, and technology choices (Pralhad, 1995) R&D agreements may enable firms to compete while maintaining a certain degree of flexibility.

As the market evolves to the early development stage and additional resources become available (i.e., growth stage), the focus of agreements shifts from exploratory R&D efforts to joint development agreements following the partial resolution of uncertainty. As the market stabilizes and becomes placid (i.e., mature stage), factors such as incremental innovations, economies of scale, and economies of scope become more crucial, and cooperative agreements that enable participants to draw on critical resources to exert more control and stabilize their respective competitive positions become more popular (Auster, 1992; Beekun & Ginn, 1993; Hrebiniak & Joyce, 1985).

In the final stage it seems inconceivable that firms would form alliances. The declining stage is commonly an outcome of major technological shifts, social and demographic changes, or regulatory changes that make current products and processes obsolete (Harrigan, 1988; Porter, 1980). Under such circumstances, the likelihood of two firms forming a cooperative relationship is minimal. However, if one does occur it is likely to take the form of divestment or defensive collusion agreements (Cainarca et al., 1992). According to Auster (1992), any form of activity that might take place will involve limited technological linkages in an attempt to revitalize the market or to delay the death of the industry.

The above discussion illuminates the emerging pattern of alliance-based competition by suggesting that the propensity toward alliance-based competition is greatest in the growth stage—where the incentive is high to gain rapid access to specialized assets that complement a firm's innovations and speed up the potential for commercial success—and in the maturity stage—where strategies aimed at oligopolistic rents are likely to elicit a competitive response. The propensity toward alliance-based competition is lower in the introduction stage (due to uncertainty regarding technology, product, market, and end-user) and lowest in the declining stage.³

P4. The likelihood that firm B will form an alliance in response to firm A's alliance formation is related to the stage of a market's life cycle. More specifically, response

³It is recognized that our argument, based primarily on prior research, may be biased toward the expanding stages rather than the declining stage because most of the cases and data are from information technology sectors. Hence the evidence of R&D agreements and technological exchanges.

likelihood is greatest in the growth and maturing stages, and lower in the introduction and declining stages.

Competitor proximity. Research on competitive analysis has argued that the competitive proximity of firms serves as a useful window to assess the consequences of competitive attacks and counterattacks on the focal firm (Barnett, 1993; Chen, 1996). Following Chen (1996), we define competitive proximity as the combined degree of market commonality and resource similarity among competitors. Assessing market commonality requires that a firm analyze not only the number of markets in which it competes but also how many of these markets interconnect with a competitor's markets (Barnett, 1993; Chen, 1996; Gimeno & Woo, 1996). Competitors that overlap in a number of strategically important markets may be seen as direct rivals, wherein there is a greater likelihood that there will be an in-kind response to a competitor's alliance action in an attempt to nullify the effect of the alliance on the firm's competitive position.⁴

Resource commonality is defined as the degree to which competitors possess similar types and amounts of strategic and resource endowments (Chen, 1996) such as technological know-how, experience, and internal assets. Firms with analogous resources are likely to display similar strategic behavior, capabilities, and competitive strengths and weaknesses (Chen, 1996). Thus, a firm is more likely to retaliate against a competitor's alliance action when the alliance is likely to impact its resource profile. In sum, we suggest that competitive proximity (consisting of market commonality and resource similarity) will be an influential indicator of a firm's propensity to react to a rival's alliance action.

P5. The greater the competitive proximity, the greater the likelihood that firm B will form an alliance in response to firm A's alliance formation.

Market concentration. The structural characteristics of the competitive environment influence the behavior of firms (Pfeffer & Salancik, 1978). Previous research has shown that strategic alliances are most likely to be formed in an environment characterized by moderate concentration (Pfeffer, 1972; Pfeffer & Nowak, 1976; Rajagopalan & Yong, 1995).

In a highly concentrated market, such as a monopolistic or collusive market, a firm has the market power necessary to obtain resources independently in order to sustain and enhance its competitive advantage. Consequently, no incentive exists to either initiate an alliance or respond to a competitor's action. Moreover, an alliance with a dominant firm is likely to be met with great antitrust opposition, thereby further reducing the incentive to form an alliance.

In a less concentrated market, or a market leaning toward pure competition, each firm is highly dependent on external resources but is limited in its ability to secure these scarce resources. While alliances might initially appear to be a solution, it is argued that lack of market power diminishes alliance attractiveness because an alliance will probably not lead to a reduction in competition. Moreover, if one

⁴MasterCard's strategic alliance with Excite was a direct and similar response to an earlier strategic alliance between Visa and Yahoo (*Alliance Analyst*, September 15, 1998).

accepts the opportunistic nature of firms, then again, there is no incentive for an alliance action or response.

In contrast to excessive or minimal market concentration, in a moderately concentrated market such as an oligopolistic market, a firm can have comparable market power in relation to its competitors. An alliance action or reaction in this instance may be beneficial if it capitalizes on both internally developed assets and access to external resources. Thus, a competitor's alliance action will likely be seen as a threat requiring an immediate response.

P6. In a moderately concentrated market there is a greater likelihood that firm B will form an alliance in response to firm A's alliance formation.

4.2. *Organizational-level moderating variables*

To this point we have suggested that within a population of firms we are likely to observe similar competitive engagements and responses—under the aforementioned antecedent conditions. In other words, given a particular context (e.g., greater competitive proximity), all firms will display similar strategic behavior (e.g., more likely to respond). Consequently, within the population, this implies a deterministic rather than voluntaristic orientation toward the competitive and general environment. However, resource-based theory suggests that even within a population, firms are often heterogeneous, possessing different resource profiles, competencies, and capabilities that influence their propensity for competitive engagement and response (Chen, 1996). Following this branch of literature, we propose that a few differences at the individual firm level will moderate the relationship between an alliance action and a subsequent response.

Collaborative know-how. The sheer number of alliances that have been formed over the past decade suggests that firms are gaining experience in alliance formation. However, experience alone does not build collaborative know-how and is not enough to ensure a competitive advantage or to guarantee success with future alliances (Simonin, 1997). Consistent with proponents of organizational learning (e.g., Inkpen & Crossan, 1995; Hamel, 1991; Kogut, 1988), we argue that it is quality, not quantity, of alliance experience that is crucial. Firms must acquire and internalize know-how from alliance experiences if they are to derive the maximum tangible and intangible value from their alliance relationships.⁵ In support of this position Simonin (1997) found that alliance know-how mediates the relationship between alliance experience and firm performance. Firms that internalized alliance know-how were not only able to realize greater benefits, but they were also able to apply this knowledge to future alliances.

Further corroboration of our argument can be found in the resource-based theory literature. This theory suggests that a sustained competitive advantage requires that assets be valuable, rare, imperfectly imitable, and nonsubstitutable (e.g., Barney,

⁵Companies such as Federal Express, Oracle, and Hewlett-Packard have in-house databases that systematically document, track, and monitor their alliance relationships from the idea-conception stage to eventual termination (*Alliance Analyst*, 1997).

1986; Reed & DeFillippi, 1990). Research has suggested that alliance know-how meets this criteria to a greater extent than does alliance experience. It is often easier to imitate a competitor's experience than it is to imitate a competitor's causally ambiguous and idiosyncratic skills and abilities (Simonin, 1997).

Following this line of thought, we argue that alliance experiential knowledge will moderate the intensity of alliance competitive engagement. Firms that not only have alliance experience but also have internalized lessons learned from these alliances will be more apt to respond to a competitor's alliance action. These firms know what alliances entail and know the potential benefits that can be derived from such a relationship. Moreover, because they have developed a multitude of alliance-based skills and capabilities, they are better able to assess the situation and determine whether a response would be beneficial. In fact, analysis may reveal that the firm is quite capable of successfully competing alone. Nevertheless, it is likely that the experienced firm will have the requisite knowledge to better investigate and identify compatible partners whose complementary skills and resources will aid in counteracting the gains achieved by its rival's alliance.

P7. The greater the collaborative know-how that firm B has acquired from its alliance experiences, the greater the likelihood that firm B will respond to firm A's alliance formation by forming an alliance of its own.

Firm size. Firm size has often been referred to as a critical moderating variable in organizational theory (Kimberly, 1976) thereby influencing the types of strategies that are needed to compete effectively (Chen & Hambrick, 1995). We argue that relatively smaller and larger organizations are less likely to respond to a competitor's alliance action than relatively medium-sized firms.⁶ Smaller organizations often lack the necessary slack resources (Smith, Grimm, Gannon, & Chen, 1991) to pursue an alliance, or are not influential enough to secure partners with which to form an alliance agreement (Gomes-Casseres, 1996). In addition, smaller firms often focus on market niches, thus reducing the type of strategic capabilities that they can obtain from alliances (Burgers et al., 1993). Large firms in turn, though more likely to possess the necessary slack resources, are often structurally complex and bureaucratic as well as inhibited by structural inertia (Hannah & Freeman, 1989), all of which limits their ability to respond. Further, due to the advantages of economies of scale and market power, large firms have less need to form a partnership with others possessing the same or fewer attributes. Large firms have the ability to combat their competitor's alliance action on their own.

In contrast, medium-sized firms face considerable competition, since a strategic action is likely to disrupt the firm's market share to some extent. Because the firm is neither large nor small, it does not possess the same advantages as small firms (e.g., focus strategy) or large firms (e.g., market power). Though the firm cannot capitalize on advantages of large or small size firms, it will be exposed to similar disadvantages, such as fewer slack resources, increased complexity, and slower information

⁶We have distinguished between relative and absolute size because what size means to firms in different industries may vary. Our argument is meant to apply to numerous industries and this distinction makes such analysis feasible.

processing—though not to the extent found with relatively smaller or larger firms. Thus, we argue that a medium-sized firm is more likely to respond to a competitor's alliance formation.

P8. The likelihood of firm B forming an alliance in response to firm A's alliance formation will be a function of its size. Specifically, firm B is more likely to form an alliance in response to firm A's alliance action if firm B is of relatively medium size.

Firm strategy. In examining the usage of cooperative linkages in relation to the external environment, Beekun and Ginn (1993) argue that firms will adjust their cooperative linkages to better align themselves with a changing environment. However, they also suggest that various strategies will have different focuses that, in turn, affect which environmental factors they attend to. For instance, the *prospector* in Miles and Snow's (1978) typology is said to have an external focus, proactively scanning the environment for opportunities and threats relative to the *analyzer*, *defender*, and *reactor*. Characteristics such as this suggest that the prospector might be more responsive to a competitor's alliance formation than perhaps a defender, who is often characterized as internally focused, taking a passive attitude toward external events (Beekun & Ginn, 1993).

A firm's strategic profile will also be influenced by its choice of reference point (Fiegenbaum, Hart, & Schendel, 1996) because a firm's reference point will affect which environmental factors it emphasizes. Specifically, a firm with a focus on targets internal to the organization (e.g., production efficiency or quality improvement) might not attend to many environmental changes. And if it does, it will perceive those changes differently from a firm with an external reference point (e.g., competitor's actions). It is suggested that the firm with an external focus will be more likely to perceive the competitor's move as an important event that requires a response.

P9. The likelihood of firm B forming an alliance in response to firm A's alliance formation will be influenced by its choice of strategy and strategic profile. Specifically, firm B is likely to form an alliance in response to firm A's alliance action if its strategic behavior is more externally than internally focused.

5. Discussion and conclusions

It has been argued that a new form of competition is emerging—alliance versus alliance—in an effort to create, build, and sustain a competitive advantage. In building a theoretical context to gain a better understanding of the antecedent conditions of alliance-based competition, this paper recognizes cooperation among firms as a strategy that enables firms to influence not only their respective competitive positions as members of the alliance (Hamel, 1991; Parkhe, 1993) but also the competitive position of their “competitive alliance others” in an attempt to generate a sustained competitive advantage. Such a perspective is hemmed in by the principles of the competitive paradigm and its applications for conducting a “cooperative” competitive analysis.

As global competition continues to intensify and the wave of alliances continues to proliferate, a more thorough understanding of a rapidly emerging mode of competition—namely, alliance-based competition—is in order. [Gomes-Casseres \(1996\)](#) and [Doz and Hamel \(1998\)](#) were among the first to have explored the increasing frequency of collaboration as a reflection of a fundamental shift from the traditional form of competition (firm versus firm) to a new form (group versus group). By laying the foundation for this unexplored yet critical field of inquiry, these researchers have provided a basis for investigating the underlying principles of alliance competition. Building on this research, the present paper develops a conceptual model that specifically investigates the interaction between an alliance action and the alliance response that it induces. The scope of this article is limited to addressing issues germane to the antecedent conditions that lead to the emergence of alliance-based competition and inter-alliance rivalry. Scholars and practitioners alike should derive benefit from an enhanced understanding of how the use of alliances as a competitive tool may not always result in the performance outcome expected if in-kind retaliation negates the strategy's effectiveness and sustainability.

In particular, the model posits that market characteristics (competitive uncertainty, number of value-generating partners, technological intensity, industry growth, competitive proximity, and market concentration) play a central role in determining the likelihood of a competitive alliance response to an alliance action. That is, pair-wise competitor analysis of market attributes leads to structural tension that is temporarily addressed (i.e., competitive position defended) as the focal firm responds to its competitor's alliance action by forming an alliance of its own. Given the asymmetrical nature of firm strategy, structure, and performance and the resulting heterogeneity it spawns in the market, it has been further argued that firm-specific attributes (collaborative know-how, firm size, and firm strategy) moderate the relationship between context and likelihood of alliance response. However, once an alliance reaction occurs alliance rivalry exists since any further competitive interaction, decisions, and battles will occur at a new level—group versus group rather than firm versus firm.

5.1. Research implications

The most obvious and major research implication stems from the development of the alliance-based competition concept using the action/response dichotomy of competitive analysis. By bridging the literature on alliances and the literature on competitive analysis, this paper conceptualizes competition as between alliances and examines the precursive competitive relationship as one that involves a competitive move (alliance action) and a competitive countermove (alliance response).

From this basis, progress can be made toward empirically based research on the explanatory power of this model. To this end the initial challenge will be to operationalize and measure the constructs in our proposed framework. For initial inquiries it may be useful to examine and perhaps adapt measures used in previous studies that have looked at some of our variables, but in different contexts. For example, [Chen \(1996\)](#) proposed using a type-by-type comparison of resources and

markets between competitors to determine the extent of resource similarity and market commonality. There also exists a number of studies that have investigated technological intensity and market life cycle in various contexts. Variables that have the potential to be more difficult to operationalize include alliance know-how and firm strategy (i.e., strategic profile/reference point). This information will typically not be found in secondary sources and it will be necessary to develop measures that capture the construct appropriately.

Empirical progress should also be made on the use of alliances as competitive weapons to establish and sustain advantages such as better cost structures, improved quality, improved margins, better speed in manufacturing and distribution, enhanced core competencies, and more extensive markets for products both within and across industries, to name a few. It would be reasonable to assume, in this age of alliance-based competition, that the potential to sustain an alliance-based advantage would be a function of the *competitive strength* of the alliance (e.g., financial strength of partners, competitive positions of partners, and combined alliance experience of partners), the *competitive elements* of the alliance (e.g., combined degree of strategic and tactical elements in the alliance), and the *competitive impact* of the alliance (e.g., number and intensity of competitive responses and barriers to imitation). In this context, the mutual forbearance hypothesis needs to be revisited. Multi-point competition involving two single firms may have very different implications for mutual forbearance compared with two alliances, where the very notion that a combined entity is better than a single entity may cause strategic and tactical behaviors that reduce the degree of mutual forbearance and intensify multi-point competition.

We recommend a research program that will help illuminate and improve our understanding of competition from an alliance perspective. Research should seek to address the underlying premise that the antecedents posited to impact alliance action and alliance response, do indeed facilitate alliance competition. For instance, researchers have to exercise care in determining exactly that the alliance response was actually a competitive reply to an alliance action, rather than coincidental action that accidentally developed competitive implications. Firm B could have formed an alliance in response to other existing conditions in the environment, independent of the alliance formed by firm A, and the competitive response might not have been intended as a strategic move.

An equally important element in the research agenda would be to investigate those components of an alliance action that are unchallenged or responded to in a delayed manner. By shedding light on this through rigorous theoretical development and empirical validation, any advantages from a strategic alliance perspective that are bestowed on the first movers, early entrants, and late entrants can be better understood. Furthermore, this research would help to illuminate the intensity of a competitive move (alliance action) and the resulting intensity and speed of a competitive countermove (alliance response).

The variables offered are by no means meant to be exhaustive. Rather, the aim was to propose a framework for conceptualizing alliance competition and inter-alliance rivalry and to begin the process of integrating research in strategic alliances

and competitive analysis. It is hoped that as research progresses, the general model presented above will give rise to a more detailed and developed theory of alliance-based collective competition.

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