PROPENSITY TO PARTICIPATE IN BRAND ALLIANCES: A MANAGERIAL PERSPECTIVE

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PERSPECTIVE

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CHAPTER I

INTRODUCTION

Brand names are often considered one of the most valuable assets a firm can own (e.g., Aaker 1992; Rao and Ruekert 1994; Davis 2002; Keller and Lehmann 2003). A recent survey of top executives found that 85 percent of companies consider brands to be one of their most valuable assets (Abrahams and Granof 2002). The value of brand names is reaching record levels, for example Coca-Cola, the most valuable brand name in the world, has an estimated worth of $68 billion (Davis 2002). With this in mind, it is not surprising that practitioners and academics increasingly recognize that building, managing, and maintaining brand names is essential for long-term business success (e.g., Aaker 1990; Shocker, Srivastava, and Ruekert 1994; Klink and Smith 2001; Davis 2002; Keller 2003).

At the same time, practitioners and academics acknowledge that brand names are not built overnight; they are difficult and expensive to develop and maintain (Aaker and Keller 1990; Davis 2002; Aaker 2004). In today's turbulent business environment, marketplace changes are challenging many firms with respect to the building and management of brands. Some of these changes are: the rapid increase in the cost of introducing new brands, the high failure rates of new products, the rapid evolution in consumer needs, and the rise in competitive pressure (Shocker, Srivastava, and Ruekert 1994; Berthon, Hulbert, and Pitt 1999; Aaker and Joachimsthaler 2000; Keller 2003a).

Indeed, the cost of introducing a new brand has been estimated at $100 million with a 50 percent probability of failure (Ourusoof 1993; Crawford 1993).

Within this reality, a firm's motivation to leverage existing brand names is rapidly growing (Tauber 1981; Aaker and Keller 1990; Rao and Ruekert 1994; Keller 2003b). Keller (2003b) argues that marketplace challenges force firms to link their brands with other entities (i.e., people, places, or other brands) in an attempt to build and leverage their brand equity in a way that might be difficult and expensive to achieve standing alone. Firms use a range of such "brand leveraging" strategies, to capitalize on the equity of established brand names (Tauber 1981, 1988; Aaker and Keller 1990; Lane 2000). One approach is line extensions, whereby firms use their own existing brand names to enter a new market segment in the same product category or product class (e.g., Pantene baby shampoo). Another approach is brand extensions, whereby firms use their existing brand names to enter a totally different product category (e.g., Starbuck's ice cream or Nike sportswear).

Another rapidly growing brand leveraging strategy is brand alliances (Rao and Ruekert 1994; Simonin and Ruth 1998, Kippenberger 2000). A brand alliance allows firms to leverage their own brands by providing them access to other firms' brands (Rao and Ruekert 1994; Simonin and Ruth 1998). Knudsen et al. (1997) stated that alliances between brands are increasing by 60% each year. A more recent study reveals that the number of co-branded products launched in the United States alone has been increasing 20% every year for the past two decades (Ernst 2002). Given the increasing popularity of brand alliances, it is not surprising that the brand alliance phenomenon has attracted increasing attention from marketing scholars over the last decade. However, a review of the brand alliance research shows that much of this attention has been given to the consumer side investigation of brand alliances. In this study, I argue that the lack of a firm side investigation of this phenomenon is a fundamental limitation in the extant brand alliance literature. This study provides a first step toward overcoming this limitation.

More specifically, this study will contribute to the brand alliance literature by developing a conceptual framework of brand alliance formation. This framework postulates that brand alliance formation is influenced by internal forces at the individual-level, the firm-level, and the brand-level as well as external environmental antecedents. In addition, the framework includes potential partner-related antecedents as context specific forces that influence brand alliance formation. Another major contribution of this study is to empirically test a subset of this framework focused on firm-level alliance capabilities (i.e., alliance competence) and brand-level attributes (i.e., product quality) as antecedents of firm's propensity to brand ally. This is the first study that conceptually proposes and empirically tests brand-level antecedents of the firm's propensity to brand ally. In addition, this study attempts to empirically test the moderating effects of firm level motivational factors (e.g., market entry/penetration) and managerial attitudes (e.g., attitude toward brand alliances) on the proposed relationships. In the rest of this chapter I briefly define brand alliances. After that, I state the purpose of my study, present a brief look at the proposed framework, and then discuss the theoretical and practical significance of this study. I close this chapter with a presentation of the content of the rest of this dissertation.

Brand Alliances

Brand alliances are cooperative marketing activities involving short-term or long-term combinations of two or more individual brands (Rao and Reukert 1994; Simonin and Ruth 1998). A brand alliance can be represented physically by using multiple brands on the same product (e.g., IBM and Intel; Diet Coke and NutraSweet; Apple and Motorola) or symbolically by associating brand names, logos, or other proprietary assets of the brand in marketing communication efforts (Rao and Ruekert 1994; Rao, Qu, and Ruekert 1999). Prior research on brand alliances has significantly increased our understanding of how consumers react to brand alliances and identified a host of variables that influence the effectiveness of such alliances. More specifically, prior research investigated whether consumer evaluation of the brand alliance and the participating brands is positively effected, and what brand alliance characteristics as well as consumer characteristics might moderate this effect (Rao and Ruekert 1994; Park, June, and Shocker 1996; Simonin and Ruth 1998; Rao, Qu, and Ruekert 1999; Voss and Tansuhaj 1999; Desai and Keller 2002; Voss and Gammoh 2004; Gammoh, Voss, and Chakraborty 2006).

Brand alliance research has also identified a host of benefits participating firms can gain from engaging in brand alliances. A brand alliance allows the partner firms to augment and strengthen the current set of associations linked to their brands (e.g., overall quality, image, awareness, particular attributes), thus providing them with an effective and efficient way of differentiating and positioning their brands and securing competitive advantage in the market place (Park et al. 1996; McCarthy and Norris 1999).

Despite these potential benefits, brand alliances are complex, not free from risk, and might negatively influence participating brands (Norris 1992; Rao and Ruekert 1994; Simonin and Ruth 1998). A poorly orchestrated brand alliance may confuse consumers and erode valuable brand equity. Since a brand alliance involves the pooling of partner brands, if problems arise the brand equity for both participating brands may suffer (Norris 1992; Rao and Reukert 1994; Park et al 1996). In addition, entering into a brand alliance is not without a direct cost related to the formation and maintaining of the relationship between the partners and is likely to lead to reduction in the direct control held by the firm over its brand assets.

As a result, brand alliance researchers call for firms to take extreme care in forming brand alliances and to give careful consideration to the potential risks of engaging in brand alliances (Norris 1992; Rao and Ruekert 1994; Park et al. 1996). Yet, it is still widely recognized that our knowledge of firms' brand alliance behavior is limited (Rao and Ruekert 1994; Simonin and Ruth 1998; Rao, Qu, and Ruekert 1999). Extant research has examined brand alliance phenomena exclusively from the consumer's perspective. It would appear that while scholars have concentrated on understanding consumers' reactions to brand alliances, the firm's behavior with respect to brand alliances was neglected. Our limited knowledge of firm's brand alliance behavior and the dynamics of managerial decisions with respect to brand alliances may be leading to inappropriate alliances (Rao and Ruekert 1994; Park et al. 1996).

Purpose of the Study

In light of the lack of research attention given to brand alliances from the firm’s perspective and the potential adverse consequences of engaging in poorly orchestrated brand alliances, managerial research investigating brand alliances is warranted. The focus of this dissertation, therefore, is to provide a first step in addressing this gap through investigating the brand alliance phenomenon from the firm perspective. The intent is to built upon the understanding of consumer reactions to brand alliances to an appreciation for brand alliance formation, management, and performance outcomes. I argue that too little attention has been given to the firm side of brand alliances; I believe that little is known about why and how firms engage in brand alliance strategies. Table 1 summarizes the shift in research focus taken by my dissertation and gives an example of the several interesting research questions sparked by this shift.

TABLE 1
A SHIFT IN FOCUS OF THE STUDY OF BRAND ALLIANCES

	Where we have been	Where we need to go
General concerns	Understanding the effectiveness of brand alliances with respect to consumers	Understanding firm brand alliance behavior.
Major topics	Spillover effects, type of brand alliances, consumer characteristics that influence their interpretation of brand alliances, multiple brand alliances, the integration of associations provided by partner brands	Firm internal and external antecedents of brand alliance formation, Brand ally selection criteria, firm level performance outcomes of brand alliances, management of brand alliances.
Illustrative research questions	What is the definition of a brand alliance? What are the different forms of brand alliances? How do consumers evaluate brand alliances? What consumer characteristics influence evaluations of brand alliances? What is the influence of multiple brand allies?	What are the antecedents of brand alliance formation? What characteristics do brands exhibit that engage in brand alliances? How do brand alliances impact partner firms’ brands and overall performance? How does brand alliance management influence its potential outcomes?

Research on brand alliances from a firm perspective has been overlooked, and thus, many avenues remain to be explored. Such as managerial issues having to do with the decision making processes that accompany brand alliances formation. There also exist specific issues concerning the criteria for successful partner selection in brand alliances. There are firm level issues related to the impact of brand alliance formation on involved brands as well as overall partner firms' performance. Finally, there are other issues having to do with the external industry and environment forces that influence the formation and success of brand alliances. However, it is obvious that no single study can address all of these concerns regarding brand alliance formation, management, and performance outcomes.

In research fields that involve the study of inter-firm relationships it is common to first focus on relationship formation considerations before further investigation into the management and performance outcomes of such relationships (Gulati 1995; Varadarajan and Cunningham 1995). Consistent with this tradition, it seems essential at this point in the development of the brand alliance research field to emphasize the antecedents of brand alliances formation, rather than on, management or performance outcomes. It seems logical that improving strategic decisions involving brand alliances requires a better understanding of its antecedents and is a preliminary step before more investigations into the management and the link between brand alliances strategies and performance. In addition, a focus on brand alliance formation is required for firms to fully utilize the advantages provided by brand alliances.

As Rao and Reukert (1994) put it,

> "Clearly the managerial questions involved in brand alliances are not trivial. Such decisions often tend to have long-term consequences and should not be entered lightly, without adequate analysis or thought." (Page 96)

A critical strategic decision such as participation in a brand alliance does not occur in a vacuum. Firm behavior is influenced by individual (e.g., experience and attitude), organizational (e.g., size, strategic intent, and resource position), and environmental (e.g., competitive intensity, technological turbulence, and demand uncertainty) context that shape action (Frazier 1983; Achrol, Scheer, and Stern 1990; Varadarajan and Cunningham 1995; Gulati 1993, 1998; Eisenhardt and Schoonhoven 1996; Das and Teng 2000).

My goal is to provide insights into the antecedents of brand alliance formation. Thus, the main objectives of this dissertation are: (1) to identify and develop a conceptual framework of the antecedents of brand alliance formation; and (2) to empirically examine a subset of this framework focused on individual-level, firm-level, and brand-level antecedents and moderators of firm's propensity to brand ally. Toward this end, I bring insight from related literature (i.e., strategic alliances research in the marketing and management disciplines) and integrate it with consumer side brand alliance research. Given the lack of research that empirically examined or conceptually investigated brand alliances from the firm perspective, this work promise considerable contributions to brand alliance literature and practice.

Firm's propensity to participate in brand alliances is the dependent variable empirically examined in this study. Formally, I define firm propensity to brand ally as the likelihood that the firm will engage a brand in brand alliances in the near future. I view this construct as an intentions construct. That is, it represents management's intention to engage in a brand alliance in the foreseeable future. As with any other form of inter-firm cooperation there are leaders and laggards, differing in their propensity to enter into brand alliances, therefore, its reasonable to presume that considerable diversity exist among firms regarding their propensity to engage in brand alliances (Day 1995; Varadarajan and Cunningham 1995; Rao and Ruekert 1994). For example, Smuckers is engaged in several brand alliances (with Brach's Jelly Beans and Kellogg's Pop-Tarts) while other firms engage in fewer or no brand alliances.

Proposed Model

Several factors may impact the formation of inter-organizational relationships. For example, Frazier (1983) argues that personal, organizational, and macroenviromental factors can influence inter-organizational relationship formation. Varadarajan (1986), in his investigation of marketing strategic alliances, argued that the appropriateness of using a particular cooperative sales promotion is likely to be contingent upon a number of company, competitive, and environmental related factors. Varadarajan and Cunningham (1995), in their conceptual framework for strategic alliance research, grouped the drivers of strategic alliances formation into three broad categories — firm, industry, and environmental characteristics. An important issue in conceptualizing brand alliance formation is the selection of factors that address possible antecedents at different levels inside and outside the firm. Antecedent factors that have been associated with alliance formation might be grouped in different ways. Varadarajan and Jayachandran (1999) in their assessment of the state of marketing strategy provided a framework in which a marketing strategy (i.e., brand strategy, marketing alliance strategy) is a function of the general environment, the industry environment, and the firm environment and resources. For the purpose of this dissertation and consistent with strategic alliances literature in the management and the marketing disciplines reviewed in the next chapter, I propose that the antecedents of brand alliance formation can be broadly grouped into the following five sets of antecedents: (1) individual-level (e.g., previous alliance experience); (2) firm-level (e.g., alliance formation competence); (3) brand-level (e.g., brand product quality); (4) partner-related antecedents (e.g., organizational compatibility); and (5) external environment antecedents (e.g., environmental uncertainty) — see Figure 1-A.

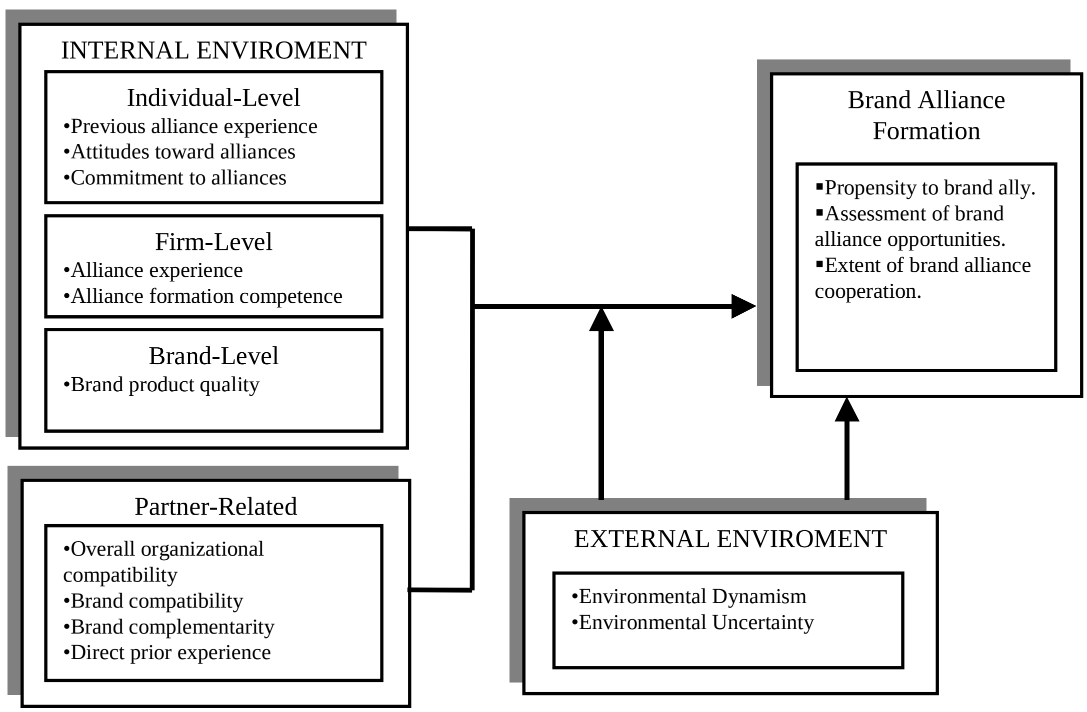


Figure 1-A

A Framework of Brand Alliance Formation

In the empirical section, I generate hypotheses for a subset of this framework focusing on alliance formation competence and product quality as antecedents of the firm's propensity to brand ally. Consistent with the strategic alliance literature, I suggest that the firm's experience in alliances, which I call alliance experience, is an antecedent of alliance competence. I investigate potential moderators including the valence of experience, the firm's motivations to brand ally, and manager's attitude toward brand alliances. These hypotheses are empirically tested with rigorous research methods on a national sample of brand managers and senior marketing executives (see Figure 1-B). In the next section, I discuss the significance of my research endeavor.

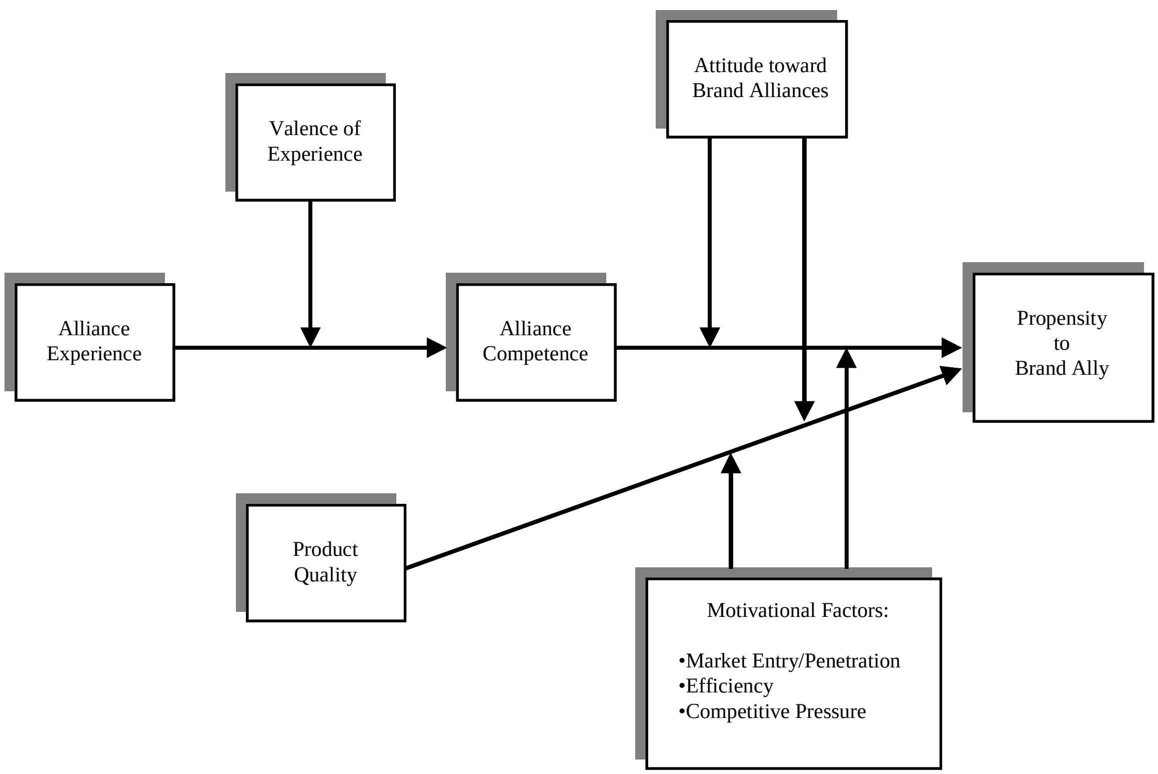


Figure 1-B

Antecedents of Propensity to Brand Ally

Significance of the Study

In recent years a number of both theoretical and empirical studies have addressed the phenomena of brand alliances (e.g., Rao and Ruekert 1994; Simonin and Ruth 1998; Rao, Qu and Ruekert 1999; Desai and Keller 2002). As I mentioned earlier the focus of these studies typically has been on the effectiveness of brand alliances from a consumer perspective. While the findings from this prior research have improved our understanding of the potential benefits of brand alliances on consumer evaluations of products and brands, little attention has been given to the firm's behavior with respect to brand alliances.

The study of brand alliances phenomena from a firm perspective is very important and seems to be the next logical step in the development of brand alliances research. First, signaling theory holds that a signal (a brand alliance in this case) is a deliberate action by the firm to communicate some information to consumers (Spence 1974; Wernerfelt 1988). According to Spence 1974, signals are activities or attributes of a firm that alter the beliefs or convey information to other market actors. Given that a large part of extant brand alliance research applies a signaling theory perspective to explain the effectiveness of brand alliances with respect to consumers (Rao and Ruekert 1994; Rao, Qu, and Ruekert 1999; Voss and Gammoh 2004), it seems logical to investigate the other side of the signaling phenomenon.

Second, brand alliances involve the leveraging of one of the most important assets of the firm — a brand name (Aaker 1992; Keller 2003a). However, the firm's decision to engage in brand alliances is not without its complexities and potential negative outcomes (Rao and Ruekert 1994; Park, Jun, and Shocker 1996; Simonin and Ruth 1998).

Abrahams and Granof (2002) argue that brand alliances expose companies to the risk that one partner's performance may fail to meet customers' expectations, thus damaging the brands of the other alliance members. In other words, even though the literature warns against the potential negative outcomes of engaging in brand alliances, thus illustrating the importance of understanding firm brand alliance behavior; published research has not investigated this issue. Therefore, we can reach the conclusion that the current literature on brand alliances suffers from a significant shortcoming — it is incomplete by the fact that it offers a one sided investigation of the brand alliance phenomenon.

It is reasonable to believe that furthering our understanding of the firm behavior with respect to brand alliances would be a significant contribution to the body of knowledge in brand alliances. There is a need to build on the current brand alliance research and utilize other existing relevant literatures to enhance our understanding of this phenomenon from the firm perspective. In this dissertation I address this need. More specifically, I integrate relevant theories and existing literatures in conceptualizing a framework for the antecedents of brand alliance formation. I also make a major effort to empirically test parts of this framework with rigorous research methods. This study offers both theoretical and practical significance. The theoretical significance is explored first.

Theoretical Significance

First, this study derives its theoretical significance from combining several theories found in the literature to develop a conceptual model of the antecedents of firm's brand alliance formation (e.g., resource based theory and signaling theory). This study is the first to investigate brand alliances from the firm perspective and, thus, is a necessary first step and expects to spur research on brand alliances in a new direction.

Second, as I mentioned earlier my model partially derives from signaling theory. Thus, it not only provides a view of brand alliances antecedents, but also expands the application of signaling theory in brand alliance research to include the study of the signal sender rather than just the signal receiver. In addition, my study contributes to signaling theory by providing an opportunity to test at the firm level some of the consumer-side propositions from the brand alliance literature.

Third, applying different perspectives from related literatures to the study of brand alliances (i.e., strategic alliance formation in the management and marketing disciplines), contributes to these literatures by providing a test of the generalizability of these perspectives within a different context. In addition, this research goes beyond simple internal brand alliance formation antecedents (i.e., individual-level and firm-level) explanation for brand alliance formation by paying explicit attention to the role that brand-level antecedents (i.e., brand product quality) play in firm's propensity to brand ally. Lastly, the developed brand alliance formation framework recognizes the influence that partner-related and external environmental antecedents have on firm's brand alliance formation.

Practical Significance

From a managerial perspective, because of the increasing popularity of brand alliances activity, it is essential for management to have more knowledge about brand alliances. In addition, brand alliances are not without complexities and potential negative effects. Managerial decisions with respect to brand alliances are not trivial and should therefore not be entered into lightly without adequate analysis or thought (Rao and Ruekert 1994). The findings of this study are of interest for marketing and brand managers, as brand alliances are an important strategy for brand leveraging and growth. This study provides managers with useful insights for the formation of brand alliances.

In addition, this study, in its attempt to capture several antecedents' forces that influence firms' propensity to form brand alliances, offers managers opportunities to extend their practical understanding of the antecedents for brand alliances formation. The framework in this study, which includes the influence of brand-level characteristics on the firm propensity to ally, should provide managers with an enhanced understanding of their brands for a better and more effective brand alliance formation.

In summary, this study examines the antecedents of propensity to brand ally thereby addressing some key questions left unexplored by previous research. This study also has practical relevance with respect to decisions involving brand alliances.

Organization of the Dissertation

This dissertation is organized into six chapters. The first chapter briefly defines brand alliances, introduces the dissertation study, and reviews its purpose as well as theoretical and practical significance. Chapter II includes a review of relevant strategic alliances literature in the management and marketing disciplines. In addition this chapter provides a detailed review of the brand alliance literature demonstrating that a consumer perspective has dominated brand alliance research. Chapter III starts with a discussion of some of the potential avenues for research into firm brand alliance behavior. This chapter argues that the logical first-step in investigating firm brand alliance behavior is to focus on the antecedents of firms' brand alliance formation. The next sections presents a framework of brand alliance formation and generate testable hypotheses for a subset of this framework focused on individual-level, firm-level, and brand-level antecedents of firm's propensity to brand ally with firm's motivational factors to engage in brand alliances and managers attitude toward brand alliances as potential moderators. The framework and generated hypotheses have as their foundation the literature and theories reviewed in Chapter II. Next, Chapter IV presents the research methodology including descriptions of the sample, the measures, and the methods used for analyzing the data. Chapter V presents the research analysis and findings. Finally, Chapter VI provides a discussion of the results and presents the study theoretical and practical implications. A summary of limitations and directions for future research are also included in Chapter VI.

CHAPTER II

LITERATURE REVIEW

Chapter I briefly presented a conceptual framework of brand alliance formation. This framework postulates that internal forces such as individual-level, firm-level, and brand-level antecedents as well as external environment forces influence firm's formation of brand alliances. In addition, this model includes potential partner-related antecedents as a context specific forces that might influence firm's brand alliance formation. This chapter reviews relevant literatures and lays the foundation on which the proposed framework and study hypotheses are based.

This review is organized into two sections. In the first section relevant research in strategic alliances in both the management and marketing literature is reviewed. This dissertation integrates parts of these fields with consumer side brand alliance research in developing a conceptual framework for the antecedents of brand alliances formation introduced in detail in the next chapter. The second section defines brand alliances, describe the various forms of brand alliances, and discuss the main benefits of brand alliances mentioned in the literature. This will be followed by a thorough review of the research to date in brand alliances demonstrating that a consumer perspective dominates this literature and identifying the research gap that needs to be addressed, that is, the need to research this phenomenon from the firm perspective (see Figure 2 for the organization of this Literature Review).

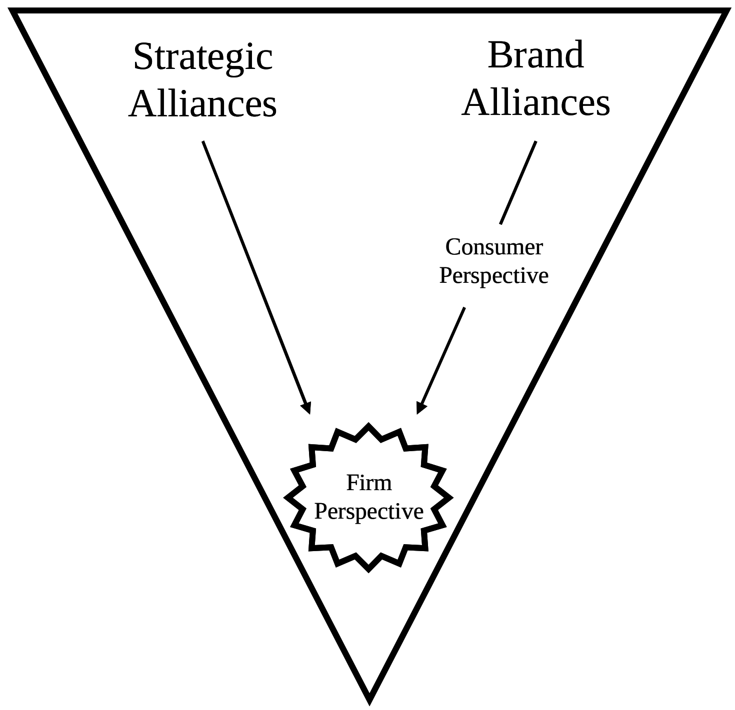


Figure 2

Organization of The Literature Review

Relevant Research Literatures

In an effort to develop a conceptual framework for the antecedents of brand alliance formation, this section reviews literature related to that task. More specifically, the next sub-sections briefly review strategic alliances research in the management and marketing literature. The goal is to highlight the different groups of antecedents of strategic alliance formation found in the literature.

At this point, the purpose of the following sub-sections is not to derive hypotheses related to specific antecedents of brand alliance formation, rather the focus is on presenting related research streams that serve as the conceptual foundation for the proposed framework. In the next chapter, literature on strategic alliance formation and brand alliances is integrated to develop a framework of brand alliance formation. In addition, whenever appropriate, individual studies will be utilized to support specific hypothesized relationships.

Strategic Alliances

Over the last decades strategic alliances have increasingly captured the interest of both practitioners as well as academic researchers in the management and marketing disciplines (e.g., Van De Ven 1976; Oliver 1990; Gulati, 1993, 1998; Achrol, Scheer, and Stern 1990; Spekman and Sawhney 1990; Bucklin and Sengupta 1993; Varadarajan and Cunningham 1995). This increased interest is in part due to the continuous proliferation of the number of strategic alliances instigated among firms. Parkhe (1993) defined strategic alliances as, “Relatively enduring inter-firm cooperative arrangements, involving flows and linkages that use resources and/or governance structures from autonomous organizations, for the joint accomplishment of individual goals linked to the corporate mission of each sponsoring firm” (p. 794). Along the same lines, Varadarajan and Cunningham (1995) defined marketing strategic alliances as inter-firm relationships that involve the pooling of skills and resources by the alliance partners in an attempt to achieve one or more goals linked to their strategic objectives.

A review of the extensive research in this area in the management and marketing literature revealed that firms engage in inter-firm relationships through multiple forms of cooperative arrangements and alliances. For example, a variety of forms of inter-firm cooperation that vary in the degree of scope, complexity, and duration fall within the domain of marketing strategic alliances (Day 1995; Varadarajan and Cunningham 1995;

Spekman and Sawhney 1990). These forms include but are not limited to joint R & D efforts, co-distribution, and co-promotion. However, all forms of alliances are in general motivated by the participating firms' desire to achieve some benefits, the need to obtain the resources they lack, and /or to leverage the resources they already own (Van De Ven 1976; Pfeffer and Salancik 1978; Wernerfelt 1984; Achrol, Scheer, and Stern 1990; Spekman and Sawhney 1990; Varadarajan and Cunningham 1995). Varadarajan and Cunningham (1995) list a broad array of resources and skills that cooperating firms could pool in strategic alliances (e.g., marketing skills, R & D skills, patents, and/or brand names). For example, new product alliances involve collaboration between two or more firms to jointly acquire and utilize information and know-how related to the research and development of new products (Rindfleisch and Moorman 2001).

As another form of inter-firm strategic/marketing cooperation, a brand alliance — the focus of this dissertation — involves the pooling of partners brand names in an attempt to achieve one or more goals linked to their strategic objectives (Rao and Ruekert 1994; Simonin and Ruth 1998). A brand alliance could be seen as a strategic alliance at the brand level. As such, it is useful for this study to investigate the existing stream of research on other forms of strategic alliances, thus providing a backdrop for my investigation of brand alliances — the youngest and the least researched of them all, at least from a firm perspective.

Antecedents of Strategic Alliance Formation

The strategic alliances literature includes a number of research streams dealing with a variety of issues related to strategic alliances. Those research streams investigated issues relating to the formation of strategic alliances, the choice of governance structures, the management of strategic alliances, and the performance outcomes of strategic alliances. One stream of the strategic alliance literature has been focused on strategic alliances formation (e.g., Kogut 1988; Oliver 1990; Gulati, 1993, 1998; Eisenhardt and Schoonhoven 1996; Das and Teng 2000). A key focus of this stream revolved around antecedent factors influencing the formation of strategic alliances. This focus parallels my query in this study. As there has been no prior research investigating firms' brand alliance formation, this dissertation draws from the literature on strategic alliance formation in the management and marketing disciplines. In what follows I present some of the research that focused on investigating the formation of different forms of strategic alliances.

To begin with, various theories have been applied to address the antecedents of strategic alliance formation and the decision of a firm to enter into inter-firm cooperation. These theories include transaction cost economics, resource dependency theory, resource-based view, strategic behavior theory, and social exchange theory. Each theory views the motives, and thus the antecedent factors, of forming alliances from a different perspective. However, all of these theories together provide a more comprehensive picture of the underlying antecedents of strategic alliances formation, thus enhancing our overall understanding of this phenomenon. Table 2 provides the basic rationale for alliance formation as viewed by the main theories applied in investigating strategic alliance formation. For further discussion of these theories in the management alliance literature see (Kogut 1988; Gulati 1998; Das and Teng 2000) and (Heide 1994; Varadarajan and Cunningham 1995) in the marketing alliance literature.

TABLE 2
THEORIES APPLIED TO THE STUDY OF
STRATEGIC ALLIANCES FORMATION

THEORY	Author(s)	RATIONAL FOR ALLIANCE FORMATION
Transaction Cost Economics	Williamson 1975, 1985;	The choice of one governance structure over another is primarily driven by the principle of minimizing transaction costs.
Resource Dependency Theory	Pfeffer & Salancik 1978;	Inter-firm alliances are a strategic response to environmental uncertainty and resource dependencies
Resource -Based View	Barney 1991; Wernerfelt 1984	Firm resources are both heterogeneous and imperfectly mobile. Firms use alliances as one way to effectively deploy and share resources for better value.
Strategic Behavior Theory	Porter 1980,1985; Kogut 1988	The rational for alliances is to improve a firm's competitive position for profit maximization.
Learning Theory	Kogut 1988; Hamel 1991; Simonin 1991; Inkpen 1992;	Inter-partner learning is the primary goal of alliances.
Social Network Theory	Laurmann, Galaskiewicz, and Marsden 1978; 1981	The embeddedness of firms in social networks provide both opportunities and constraints that influence their behavior related to alliances formation.

A careful review of this area demonstrates that previous research had identified a number of key antecedents of alliance formation among firms. Consistent with schemas found in the literature (e.g., Varadarajan 1986; Cravens, Ship, and Cravens 1994; Varadarajan and Cunningham 1995) those antecedents can be broadly grouped into three categories — internal, partner-related, and external antecedents — that influence alliance formation (see Figure 3).

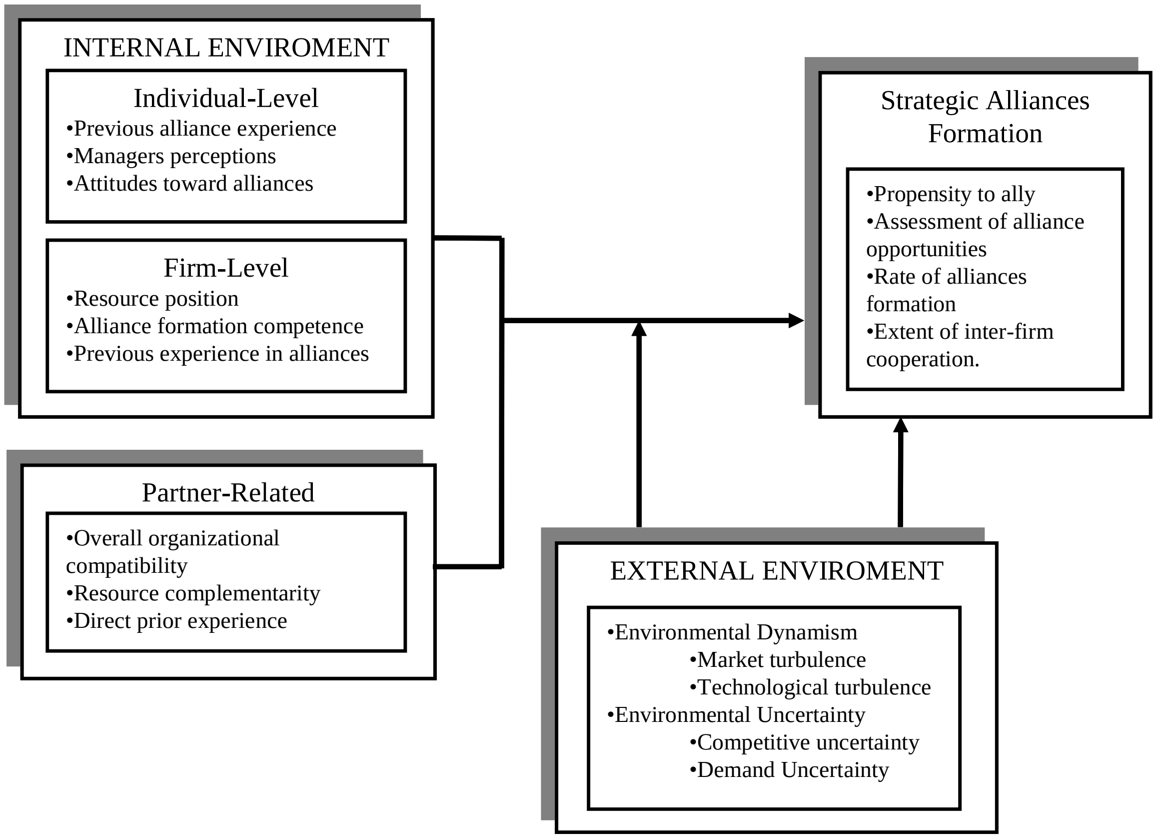


Figure 3

An Organizing Framework for Summarizing the Literature*

* Based on strategic alliance formation literature in management and marketing disciplines.

More specifically, traditional factors proposed have included internal antecedents at both the individual-level (e.g., previous alliance experience) and at the firm-level (e.g., resource position) (e.g., Van De Ven 1976; Oliver 1990; Larson 1992; Ghoshal and Moran 1996; Eisenhardt and Schoonhoven 1996; Tyler and Steensma 1998; Das and Teng 2000). In addition, partner-related variables consistently appear in the literature including overall organizational compatibility, resource complementarity, and direct prior experience between potential partners (e.g., Lorange and Roos 1991; Saxton 1997; Brouthers 1995; Niren, Shelburn, and Rogers 1995; Dyer and Singh 1998; Harrison et al. 1991, 2001; Ireland et al. 2002). Furthermore, several external environment variables have been associated with alliances formation (e.g., market turbulence, technological turbulence, competitive uncertainty, and demand uncertainty) (e.g., Eisenhardt and Schoonhoven 1996**;** Dickson and Weaver 1997; Das and Teng 2001). A discussion of the key antecedents of strategic alliance formation identified by previous research in each of these categories is presented next. Table 3 provides detailed definitions of the constructs presented in the rest of this section.

Internal Antecedents. Two levels of internal antecedents appear consistently in previous alliance research: (1) individual-level and (2) firm-level variables. At the individual-level strategic alliance researchers acknowledge the key role that decision makers play in the firm decision with regard to strategic alliances (e.g., Larson 1992; Ghoshal and Moran 1996). This is consistent with the strategic decision-making literature view of firm strategic choices, in part, as a function of top managers' attitudes, perceptions, and experiences (March and Simon 1958; Hambrick and Mason 1984; Tyler and Steensma 1998). As Hambrick and Mason (1984) put it, top decision makers' attitudes and perceptions as well as observable characteristics such as career experiences influence their strategic choices. At the firm-level, researchers empirically tested a number of factors that might influence alliance formation including the firm's resource position, alliance formation competence, and its previous experience in alliances (e.g., Varadarajan and Cunningham 1995; Gulati 1998; Sivadas and Dwyer 2000; Das and Teng 2000). In what follows I discuss each of these two levels of antecedents in turn.

Consistent evidence has been found for the association between a number of individual-level factors (e.g., attitudes, perceptions, and previous experiences) and strategic choice **—** see Table 3 page 33 for definitions of these constructs. For example, Eisenhardt and Schoonhoven (1996) found that top management characteristics affected the rate of alliance formation. More specifically, they found that firms with more experienced top management teams formed product development alliances at higher rate. Further, Tyler and Steensma (1998) found empirical evidence to support the proposition that top executives' personal work experiences, their perceptions of their firms' attitudes toward technology and risk, and their perceptions about their firms' past success with collaboration influenced their cognitive assessment of potential technological alliances. In addition, marketing alliance researchers have recognized and empirically investigated the role that decision makers play in the firm's choices regarding marketing cooperative behaviors. For example, Varadarajan and Cunningham (1995) proposed that top management attitudes towards strategic alliances are important antecedents of firms' propensity to enter into strategic alliances. This assertion is also found in the earlier work of Frazier (1983) on interorganizational exchange within marketing channels. Frazier found that the personal characteristics of decision makers (e.g., experience) influence exchange initiation.

As I mentioned earlier, in today's turbulent business environment, brand names are considered a valuable asset essential to the firm's long-term success (Shocker, Srivastava, and Ruekert 1994; Keller 2003a; Davis 2002). A recent survey of senior executives found that 85 percent of firms consider brands to be one of their most important assets (Abrahams and Granof 2002). The point is that, given the strategic stature brands have within firms, brand decisions have moved upward in the firm from being considered tactical and reactive to more strategic in nature (Aaker and Joachimstahler 2000; Motion et. al. 2003; Davis 2002). In addition, brand alliances can be shrouded with uncertainty and ambiguity, specific risks include consumer confusion and brand equity dilution (Rao and Ruekert 1994; Park et al. 1996). I argue that the decision to brand ally is an important strategic choice facing a firm. Therefore, it is logical to assume that brand alliance decisions, like other forms of strategic alliance decisions, are influenced by the individual characteristics of decision makers.

At the firm-level, several firm characteristics have been associated with alliance formation including the firm's resource position, alliance formation competence, and its previous experience in alliances — see Table 3 page 33 for definitions of these constructs. To begin with, a firm-level characteristic commonly associated with alliance formation behavior is the firm's current resource position. Researchers agree that the firms' resource position is an important factor influencing inter-firm relationship formation (Oliver 1990; Van De Ven 1976; Varadarajan and Cunningham 1995). Given that an alliance is one way with which a firm can secure the resources and assets it needs but lacks, several studies suggested and investigated firm resources as antecedents of its alliance formation. For example, Varadarajan and Cunningham (1995) argue that a firm's resource position is one of forces that influence its propensity to form strategic alliances. Along the same lines, Cravens, Ship, and Cravens (1993) argue that organizations are more likely to engage in alliances when resource gaps are high. In their resource based theory of strategic alliances, Das and Teng (2000) view firm resources as important indicators of the likelihood of firms entering into strategic alliances. More specifically they argue that there are two related, but distinct, motives for firms to use strategic alliances: (1) to obtain others' resources; and (2) to retain and develop one's own resources by combining them with others' resources. This argument is consistent with earlier findings of Eisenhardt and Schoonhoven (1996), who empirically demonstrated that alliances took place when firms in vulnerable strategic position seek resources they lack and when firms in strong strategic positions form alliances to capitalize on their assets.

A second firm-level antecedent that has been associated with alliance formation is alliance formation competence (Simonin 1997; Gulati 1998; Sivadas and Dwyer 2000; Lambe, Spekman, and Hunt 2002). Gulati (1995) argues that the possession of alliance formation competence can be a significant catalyst for firms considering new alliances. The author notes that learning from prior experience in alliances is an important base for alliance formation competences. He found evidence that firms' build alliance formation competence with alliance experience, which enables them to form future alliances with greater ease and greater frequency (Gulati, 1999). Lambe, Spekman, and Hunt (2002) defined alliance formation competence as the organizational ability for finding, developing, and managing alliances. They showed that alliance competence contributes to alliance success, both directly, and indirectly through the acquisition and creation of resources. These findings are consistent with findings from research streams investigating strategic alliance management and performance, where the value of collaborative competence has long been recognized as important for the management and success of strategic alliances (e.g., Simonin 1997; Sivadas and Dwyer 2000).

A third firm-level characteristic associated with alliance formation is previous experience in alliances. Day (1995) argues that previous alliance experience adds to the quality of a firm's alliance formation skills by enhancing their abilities with respect to selecting and negotiating with potential partners. Further more, Varadarajan and

Cunningham (1995) proposed that prior experience in strategic alliances is a significant antecedent of the firms' propensity to enter into strategic alliances. Empirically, Pangarkar (2003) demonstrated that prior alliance experience positively influences the longevity of alliances in the biotechnology sector.

Partner-Related Antecedents. The second category of antecedents associated with alliance formation I refer to as partner-related variables. Many researchers recognize that partner-related variables such as overall organizational compatibility with the potential partner firm, resource complementarity with the potential partner firm, and direct prior experience with the potential partner firm influence a firm's propensity to participate in an alliance (e.g., Spekman and Sawhney 1990; Bucklin and Sengupta 1993; Dyer and Singh 1998; Harrison et al, 2001).

The first partner-related variable commonly associated with alliance formation is overall organizational compatibility between alliance partners (Achrol, Scheer, and Stern 1990; Spekman and Sawhney 1990; Lorange and Roos 1991). The literature shows that organizational compatibility between partners has been assessed in several ways: strategic fit, cultural fit, functional fit, and goal fit between the partners. Overall, organizational compatibility in terms of fit between the partners on these aspects have been found to enhance the effectiveness of inter-organizational cooperative activities — see Table 3 page 34 for definitions of these constructs (e.g., Tyler and Steensma 1995; Bucklin and Sengupta 1993; Sivadas and Dwyer 2000). For example, Tyler and Steensma (1995) in their investigation of executive's evaluations of technological collaboration found that the greater the compatibility of operating and management systems (i.e., functional fit) of a potential partner with those of the firm, the more attractive the collaboration will be to top executives. Bucklin and Sengupta (1993) found that the greater the organizational compatibility between the partners the greater the effectiveness of the co-marketing alliance relationship. Along the same line, Sivadas and Dwyer (2000) found that the success of new product alliances depends on the fit among partners' in terms of their products, markets, and goals.

A second partner-related variable associated with alliance formation is resource complementarity between alliance partners. Resource complementarity refers to the lack of similarity or overlap between partner's resources, that is, the lower the similarity, the greater the complementarity (Dyer and Singh 1998; Harrison et al, 2001). Strategic alliances are first and foremost exchange relationships between two or more firms that come together to share or exchange assets and skills that each desires. Dyer and Singh (1998) argue that full utilization of a firm's resources may require a firm to use those resources in conjunction with complementary resources from other firms. As such, one reason to enter into an alliance is for the firm to leverage its resources. As a result firms search for partners that have complementary resources and capabilities (Gulati et al. 2000).

Several studies have illustrated the importance of resource complementarity in strategic alliances. For example, Shan and Hamilton (1991) found that complementarity of resources between domestic and foreign firms were critical to the formation of cross-border alliances in biotechnology. Nohria and Garcia-Pont (1991) report that in the global automobile industry firms in certain strategic groups form alliances in a complementary manner with those in other strategic groups to increase the benefits of cooperation. Furthermore Brouthers (1995) argues that resources and skills complementarity is a major factor contributing to alliance success. Similar with this view, Madhok and Tallman (1998) argue that alliances where partners have the potential to create synergy by integrating complementary resources have the highest probability of producing value. Sivadas and Dwyer (2000) found that resource complementarity between partners influenced new product alliance success. Finally, Chung et al. (2000) found significant support for the notion that resource complementarity drives alliance formation between two specific firms.

A third partner-related variable that has been linked to alliance formation is direct prior experience with the specific potential partner (Gulati 1995; Bucklin and Sengupta 1993). This differs from the firm's previous experience in alliances (discussed above), which refers to its overall alliance experience regardless of the partner firm, whereas this variable captures the firm's prior alliance experience with a particular partner. Gulati (1995) found that a prior relationship experience between the partners influences the willingness to partner with that firm in the future. Furthermore, the author found that previously allied firms were more likely to engage in further alliances with each other. Bucklin and Sengupta (1993) demonstrated that long and stable prior relationships between partners in co-marketing alliances are related positively to alliance effectiveness. Chung et al. (2000) found significant support for the notion that direct prior alliance experience drives alliance formation between two specific partner firms.

External Antecedents. The third category of antecedents associated with alliance formation includes external environment variables. The firm operates within an external environment that influences its decisions and actions. The external environment comprises actors that directly influence the firm such as customers, competitors, suppliers, and channel members. In addition, the external environment consists of institutions and factors that influence and shape the general legal, financial, and competitive nature of the market place across industries (Duncan 1972; Pfeffer and Salancik 1978; Tung 1979; Varadarajan and Jayachandran 1999). One approach to understanding the environment's effect on the firm is to focus on the key environmental dimensions that influence the firm (e.g., Tung 1979; Dess and Beard 1984; Dickson and Weaver 1997). Two important environmental dimensions are environmental *dynamism* and environmental *uncertainty*. Environmental dynamism reflects the rate of change in the key environmental factors at the micro and macro level such as technology, competitor activity, consumer tastes and preferences, or regulations, which makes the environment a dynamic and volatile one. The second dimension, environmental uncertainty, reflects the unpredictability of environmental factors that affect the firm's decision-making (Duncan 1972; Achrol and Stern 1988; Spekman and Sawhney 1990; Achrol et al. 1990; Dickson and Weaver 1997).

Some researchers investigate perceived dynamism and uncertainty in general — without specifying underlying facets of the environment such as market turbulence. For example, researchers suggest that environmental uncertainty is a critical factor when considering strategic alliances. More specifically, Das and Teng (2001) argue that firms are more likely to engage in alliances when their industry has a high degree of environmental uncertainty. This view holds that firms seek to reduce environmental uncertainty by exchanging resources for mutual benefit. Spekman and Sawhney (1990) also suggest that environmental uncertainty influences a firm's alliance behavior. Dickson and Weaver (1997) found empirical evidence that perceived environmental uncertainty is a significant determinant of alliance formation. Other researchers view the external environment as comprised of facets that influence the firm such as market turbulence or demand uncertainty — see Table 3 page 35 for definitions of these constructs. For example, Achrol, Scheer, and Stern (1990) suggest that both demand uncertainty and technology uncertainty influence alliance success. Cravens, Ship, and Cravens (1993) argue that organizations are more likely to engage in alliances when both technological turbulence and market turbulence (i.e., dynamism) are high. Bucklin and Sengupta (1993) found empirical evidence that the perceived effectiveness of alliances was higher when the rate of technological turbulence (i.e., dynamism) in the environment increased. In summary, a strategic alliance is one way in which firms' can manage the dynamism and uncertainty of the environment within which they operate (Van De Ven 1976; contactor and Lorange 1988; Harrigan 1988).

Concluding Points

In order to develop a conceptual model of brand alliance formation I attempted to bring insight and synthesize findings from strategic alliance formation literature in both the management and marketing disciplines. Collectively, the review of this literature identifies an array of factors associated with the formation of strategic alliances. Thus, providing this study with a conceptual foundation for the potential antecedents of brand alliance formation. This dissertation builds on this literature by proposing a general framework of brand alliance formation that include six groups of antecedents including factors related to individual, firm, resource position (i.e., the brand name), and external environment characteristics.

TABLE 3

PREVIOUSLY PROPOSED ANTECEDENTS OF MARKETING/STRATEGIC ALLIANCE FORMATION

Antecedent	Citation	Definition	Dependent Variables
INTERNAL			
Individual-Level			
Previous alliance experience	Eisenhardt & Schoonhoven 1996; Tyler & Steensma 1995,1998; Combs & Ketchen 1999;Varadarajan & Cunningham 1995.	Refers to the extent and length of top management prior involvement in strategic alliances.	Top executives' assessment of collaborative opportunities. Propensity to ally. Rate of alliance formation.
Managers perceptions	Tyler & Steensma 1995,1998;Varadarajan & Cunningham 1995.	Refers to key top managers' perceptions about their firm's technological emphasis, risk orientation, and pervious alliance experience and	Top executives' assessment of collaborative opportunities. Propensity to ally.
Attitude toward alliances	Varadarajan & Cunningham 1995	Refers to key top managers' favorable predispositions toward alliances.	Propensity to ally.
Firm-Level			
Resource position	Van De Ven 1976; Harrigan & Newman 1990; Cravens et al. 1993; Varadarajan & Cunningham 1995; Eisenhardt & Schoonhoven 1996; Das &	Refers to firms need for resources, firms are more likely to engage in alliances when resource gaps are high.	Propensity to seek alliances. Likelihood of alliance formation. Propensity to ally.
Alliance formation competence	Gulati 1995,1999; Sivadas & Dwyer 2000; Lambe et al., 2002.	Refers to the organizational ability for finding, developing, and managing alliances.	Likelihood of alliance formation. Extent of inter-firm cooperation.
Previous experience in alliances	Day 1995; Varadarajan & Cunningham 1995; Pangarkar 2003.	Firm prior involvement in alliances in general. Operationalized as the cumulative number of alliances the firm has entered.	Propensity to ally. Extent of inter-firm cooperation.

Table 3 - Continued

Antecedent	Citation	Definition	Dependent Variables
Partner-Related			
Overall organizational compatibility	Harrigan 1988; Achrol et al. 1990; Spekman & Sawhney 1990; Bucklin & Sengupta 1993; Tyler & Steensma 1995; Shah 1997; Saxton 1997; Kale et al. 2000.	It reflects the degree of fit between partners on different aspects such as strategic fit, cultural fit, functional fit, and goals fit.	Propensity to seek alliances. Top executives' assessment of collaborative opportunities. Likelihood of alliance formation. Extent of inter-firm cooperation (measured objectively by the total number of current alliances a firm have over a specific period of time or subjectively by asking key informants about the number of inter-firm alliances the firm is engaged in).
Strategic fit	Achrol et al. 1990; Bucklin & Sengupta 1993;	Reflect the similarity between partners overall strategic orientation (e.g., cost-leadership vs. market orientation).	
Cultural fit	Harrigan 1988; Achrol et al. 1990; Bucklin & Sengupta 1993;	Reflects the similarity between partners corporate cultures. That is whether the partners share the same values, beliefs, norms, and management styles.	
Functional fit	Achrol et al. 1990;	Reflects the similarity between partners operating and control procedures. That is, whether the operating and control mechanisms used by partners are conductive to good communication and effective functioning and monitoring of collaboration.	
Goals fit	Bucklin & Sengupta 1993; Spekman & Sawhney 1990; Achrol et al. 1990	The extent to which partner firms perceive that simultaneous goal accomplishment is possible such that each partner can achieve its own goals as well as the alliance goals.	
Resource complementarity	Harrison et al, 1991,2001; Das & Teng 2000; Shan & Hamilton 1991; Nohria & Garcia-Pont 1991; Brouthers et al, 1995; Varadarajan & Cunningham 1995; Madhok & Tallman 1998; Sivadas & Dwyer 2000; Chung et al, 2000; Ireland et al. 2002.	Refers to lack of similarity or overlap between partners capabilities, competencies, or resources - the lower the similarity, the greater the complementarity. It represents "nonredundant distinctive competencies" brought by each partner.	Linkage formation propensity. Propensity to ally. Extent of inter-firm cooperation.
Direct prior experience	Ruekert & Walker 1987; Murnighan 1994;Chung, Singh, & Lee 2000; Ahuja 2000; Gulati 1995; Bucklin & Sengupta 1993.	Refers to the extent and duration of prior history of business relations with the partner firm.	Likelihood of alliance formation. Extent of inter-firm cooperation.

Table 3 - Continued

Antecedent	Citation	Definition	Dependent Variables
EXTERNAL ENVIRONMENT			
Environmental dynamism	Miles & Snow 1978; Milliken 1987; Ireland et al. 1987; Dickson & Weaver 1997; Spekman and Stern (1979), Spekman & Sawhney 1990; Varadarajan & Cunningham 1995; Das & Teng 2001.	Reflects the rate of change in key environmental factors such as product technology, competitor activity, or consumer tastes and preferences that make the environment a dynamic and volatile one.	Top executives' assessment of collaborative opportunities.
Market turbulence	Dickson & Weaver 1997; Jaworski & Kohli 1993.	Refers to the degree to which customer preferences change over time resulting in new, previously unknown, target segments emerging.	Likelihood of alliance formation.
Technological turbulence	Varadarajan & Cunningham 1995; Dickson & Weaver 1997; Achrol et al. 1990.	Refers to the degree to which technology changes over time within the industry and the degree to which such changes affect the industry.	Extent of inter-firm cooperation. Propensity to ally.
Environmental uncertainty	Miles & Snow 1978; Milliken 1987; Ireland et al. 1987; Dickson & Weaver 1997; Spekman and Stern (1979), Spekman & Sawhney 1990; Varadarajan & Cunningham 1995; Das & Teng 2001.	The perceived inability of an organization's managers to accurately assess the external environment of the organization or the future changes that might occur in the environment on key factors such as competitors, consumers, suppliers, etc.	Extent of inter-firm cooperation. Propensity to ally. Likelihood of alliance formation.
Competitive uncertainty	Harrigan 1988; Varadarajan & Cunningham 1995.	Refers to the unpredictability of competitive activities and its effect upon the market position of others in the industry.	Extent of inter-firm cooperation. Propensity to ally.
Demand uncertainty	Harrigan 1988; Achrol et al. 1990;Varadarajan & Cunningham 1995.	Arises from the unpredictability of consumer purchasing behavior and the rapid change in consumer tastes and preferences.	Propensity to seek alliances. Extent of inter-firm cooperation. Propensity to ally.

Brand Alliance Literature

Given the increasing popularity of brand alliances (Knudsen et al. 1997; Ernst 2002), it is not surprising that academic research on this phenomenon has developed over the last decade. In this section I will first define brand alliances, describe the various forms of brand alliances, and discuss the main benefits of brand alliances. After that, I will provide a thorough review of brand alliance research including the various theoretical backgrounds that have been used to date in brand alliance literature. This review will be followed by a summary of the basic findings of this literature. Finally, I will identify a basic area of inquiry that has been neglected to date in investigating brand alliances.

Brand Alliance

Definition. A brand alliance is defined as any cooperative marketing activity involving short-term or long-term association and/or combination of two or more individual brands (Rao and Reukert 1994; Simonin and Ruth 1998). Although, a review of the brand alliances literature shows that the definitions of brand alliances vary slightly based on the particular form of brand alliance the researcher is interested in (see Table 2), the definition provided in this dissertation is consistent with most of the existing definitions and is broad enough to encompass all forms of brand partnerships found in the literature that falls between the extremes of association or physical combination of two or more brands.

Forms. There seems to be an agreement among researchers in this area that brand alliances come in several forms such as co-branding, joint promotion, composite branding, ingredient branding, and dual branding (e.g., Rao and Ruekert 1994; Simonin and Ruth 1998; McCarthy and Norris 1999). For example, Rao and Ruekert (1994) argue that the nature of brand alliances vary, ranging from physical combination of multiple brands in the same product [ingredient branding] (e.g., IBM and Intel; Diet Coke and NutraSweet; Apple and Motorola) to symbolical association of brand names, logos, or other proprietary assets of the brand in marketing communication efforts [joint promotion] (e.g., joint promotion of Bacardi Rum and Coca-Cola; Frito-Lay chips and KC Masterpiece barbecue sauce). Several other researchers adopt this broad view of brand alliances to include the several forms of physical combination as well as symbolical association between participating brands (e.g., Simonin and Ruth 1998; Rao, Qu, and Ruekert 1999; Samu, Krishnan, and Smith 1999; McCarthy and Norris 1999; Voss and Tansuhaj 1999; Washburn, Till, and Priluck 2000, 2004; Vaidyanathan and Aggarwal 2000; Desai and Keller 2002; Voss and Gammoh 2004).

Another form of brand alliance is a composite brand extension, where two existing brand names are combined together to create a composite name for a new product (Park, Jun, and Shocker 1996). An example of this form of brand alliances includes the introduction of copying machines in Japan under the composite brand name Fuji Xerox. Other researchers (Levin and Levin 2000; Levin 2002) use the term dual branding to describe a brand alliance characterized by the association of two retail brands through the sharing of a retail outlet (e.g., ATW and Long John Silver's). Regardless of the nature of the link between the participating brands, a common thread between all forms of brand alliance is the simultaneous presentation of the involved brands, thus giving consumers the perception that the brands are linked.

The terms brand alliance, co-branding, joint promotion, composite branding, ingredient branding, and dual branding are some times used as synonyms in the popular press as well as in some academic venues (Cooke and Ryan 2000; Jones 2004). In this dissertation, the term “brand alliance” will be used as an umbrella term encompassing all of the previously mentioned forms of brand partnerships. Table 2 presents the definitions of the various forms of brand partnerships identified by both theoretical and empirical brand alliance research. Also Table 2 includes a number of examples of such forms of brand alliances mentioned in the literature.

Benefits. Brand alliance research has identified a host of benefits participating firms can gain from engaging in brand alliances. In particular, previous brand alliance research suggests that through capitalizing on the brand associations of participating brands (i.e., overall reputation for quality, particular brand attribute) both partner firms may achieve a variety of benefits from entering into brand alliances, including enhancing their position in current markets, entering into new markets, adding value to the firm existing product mix, decreasing risk, and reducing cost (Norris 1992; Rao and Reukert 1994; Park et al. 1996; Voss and Tansuhaj 1999; McCarthy and Norris 1999; Desai and Keller 2002).

Even more, the findings of brand alliance research suggest that since a brand alliance allows a firm to capitalize on other’s brand names, a brand alliance is a plausible strategy for both firms with strong as well as weak brand names, yet with different goals (Rao and Reukert 1994; Park et al. 1996; Desai and Keller 2002). For a firm with high equity brand name, a brand ally helps the firm to either extend into new markets or gain a new attribute to its current set of brand associations. For firms with low brand equity, an alliance with a strong brand name should serve as an overall quality endorsement and reputation boost for the low equity brand, thus enhancing consumer response to the brand and reducing the risk and cost associated with the introduction of new products/brands.

On the other hand, a brand alliance also provides benefits to consumers. Consumers might be unaware of product quality or attributes before they purchase a product, and sometimes even after they have used the product (Akerlof 1970; Rao and Ruekert 1994). In this situation, consumer's, in order to overcome their lack of information about the product and reduce their perceived risk of the purchase, use a brand ally as an information cue about overall quality or product related attributes. As such, the existence of another brand signature on a product should prove useful to consumers through reducing their perceived risk and information search cost (Rao and Reukert 1994; Jones 2004). In summary, a brand alliance strategy has the potential to provide benefits for all parties involved (e.g., participating firms as well as consumers). As Norris (1992) put it – "Something for everyone."

TABLE 4
DEFINITIONS AND EXAMPLES OF THE VARIOUS FORMS OF BRAND ALLIANCES
FOUND IN THE LITERATURE

Author(s)	Term	Definition	Examples
Rao and Ruekert (1994)	Brand Alliances; Joint Branding	" … they (brands) can be combined with other brand names to form a synergistic alliance in which the sum is greater than the parts. …. Such activities may involve *physical product integration* , ….. Or may simply involve the *promotion of complementary use* . …"	The physical integration between Diet Coke and NutraSweet. The promotion of Frito-Lay chips with KC Masterpiece barbecue sauce.
Park, Jun, and Shocker (1996)	Composite brand extension, Brand Alliances	" It involves combining two existing brand names to create a composite brand name for a new product. … The two firms (brands) ally themselves to enter a new product-market by sharing manufacturing and marketing expertise."	Slim-Fast chocolate cakemix by Godiva. Healthy Choice cereal by Kellogg's.
Simonin and Ruth (1998)	Brand alliances, co-branding, co-marketing, cross-promotion, joint branding, joint promotion	"… brand alliances involve the short- or long-term association or combination of two or more individual brands, products, and/or other distinctive proprietary assets."	Breyer's ice cream containing Reese's Pieces candies. Jointly branded credit card between Northwest and Visa.
Rao, Qu, and Ruekert (1999)	Brand alliances, joint promotion.	"… brand alliances to include all circumstances in which two or more brand names are presented jointly to the consumer."	IBM computers using Intel chips. Commercials featuring Oscar Mayer and Mail Boxes Etc.
McCarthy and Norris (1999)	Brand alliances, co-branding, composite branding, ingredient branding	"… a marketing strategy wherein two brands join together in the marketing of a product."	Kellogg's Pop-Tarts with Smucker's preserves.
Samu, Krishnan, and Smith (1999)	Horizontal advertising alliances	"… two brands from different product categories are featured together in an advertisement."	Joint promotion between Kellogg and Tropicana.
Voss and Tansuhaj (1999)	Brand alliances	".. As the appearance of a well-known and reputable brand name in the promotional messages and product packaging of another brand."	Joint promotion between Fuji and Xerox.
Washburn, Till, and Priluck (2000)	Co-branding	"… pairing two or more branded products (constituent brands) to form a separate and unique product (composite brand)….This study focuses on physical product integration. "	Kudo's granola bars with Snicker's pieces. Ruffles potato chips with K.C. Masterpiece barbecue sauce flavoring.
Levin and Levin (2000)	Dual-branding	"..in which they [the two brand names] shared the same location, and customers could order from both restaurants at the same counter."	Two restaurants sharing the same location. No specific example was given.
Vaidyanathan and Aggarwal (2000)	Ingredient branding	"Whereby private label brands use national brand ingredients and also prominently display this association in their promotions as well as on product packaging."	Safeway Select chocolate chip cookies with Hershey's chocolate chips.
Desai and Keller (2002)	Cobranded Ingredient	"Ingredient branding, in which key attributes of one brand are incorporated into another brand as ingredients,.."	Beechnut baby foods with Chiquita banana. Ben and Jerry's Heath Bar Crunch ice cream.
Voss and Gammoh (2004)	Brand Alliances, joint promotion	"… cooperative marketing activities involving short-term and or long-term combination of two or more individual brands."	Sony (PDA) and Hewlett-Packard (printers) appearing in print ad for Pacific digital camera (fictitious new brand name)

Brand Alliance Research

As I mentioned before brand alliance research has blossomed considerably in the last decade. In this sub-section, I provide an extensive review of the published research on brand alliances. This review has the following two goals: 1) to summarize the main findings of brand alliance research, 2) to identify a basic area of inquiry that has been neglected to date in investigating brand alliances.

Brand alliances have been studied using several approaches/theories: concept combination theory (Park et al. 1996), information integration theory (Simonin and Ruth 1998), associative network memory models (Samu et al. 1999), context effects (Levin and Levin 2000), and the information asymmetry (or signaling) approach (Rao and Ruekert 1994; Rao et al. 1999). Table 3 provides a list of the theories employed to study brand alliances, summarizes each theory main concepts, and lists studies that applied that theory to the study of brand alliances.

Employing those various theoretical approaches prior brand alliance research has significantly increased our understanding of how consumers react to brand alliances and identified a host of variables that influence the effectiveness of such alliances. More specifically, prior research investigated whether consumer evaluation of the brand alliance and the participating brands is positively effected, and what brand alliance characteristics as well as consumer characteristics might moderate this effect (Rao and Ruekert 1994; Park, June, and Shocker 1996; Simonin and Ruth 1998; Rao, Qu, and Ruekert 1999; Voss and Tansuhaj 1999; Desai and Keller 2002; Voss and Gammoh 2004).

TABLE 5
EXAMPLES OF THE DIFFERENT THEORETICAL BACKGROUNDS USED IN THE BRAND ALLIANCES LITERATURE

Theory	Main Concept	Studies
Signaling Theory	Signaling theory involves the study of information economics under conditions in which buyers and sellers possess asymmetric information when facing a market interaction (Akerlof 1970; Spence 1974). One solution to this information problem is for firms to send signals about their quality.	Rao and Ruekert (1994); Rao, Qu, and Ruekert (1999); Voss and Tansuhaj (1999); Fang and Mishra (2002); Gammoh and Voss (2003) ;Voss and Gammoh (2004); Gammoh et al. (2004); Jones (2004)
Information Integration Theory	Attitudes or beliefs are formed and modified as people receive, interpret, evaluate, and then integrate stimulus information with existing beliefs or attitudes (Anderson 1981).	Simonin and Ruth (1998); Carter (2002); Gammoh and Voss (2003); Rodrigue and Biswas (2004)
The Associative Network Memory Model	The structure and processes by which concepts or entities become linked in a person's mind.	Samu, Krishnan, and Smith (1999); Musante (2000)
Concept Combination Theory	How a person process existing concepts when they compained in forming a new composite concept.	Park, Jun, and Shocker (1996); Vaidyanathan and Aggarwal (2000); Hadjicharambous (2001)
Social Judgment Theory (assimilation and contrast effects)	People evaluate objectives/situations differntly depending on contextual factors.	Levin (1997) ; Levin and Levin (2000); Levin (2002)
Associative-Learning	The cases when people make connections between various stimuli that take place in their environment.	Washburn (1999); Washburn, Till, and Priluck (2000); Washburn, Till, and Priluck (2004)
Schema Incongruity Models	How the congruity of the new information can effect the knowledge structure of a schema. A schema is a cognitive structure that represents organized knowledge about a concept or object.	Desai and Keller (2002); Musante (2000)

To begin with, Rao and Ruekert (1994) in their seminal piece on brand alliances employed signaling theory in presenting a theoretical rationale for why brand alliances might be an appropriate strategy for enhancing consumers' perceptions of product quality. The authors argue that since a brand name serves as a quality assurance device, in the sense that it tells consumers who the manufacturer of the product is and who to punish should the product perform unsatisfactorily, a brand alliance can serve as a credible signal of product quality.

Information Asymmetry and Signaling Theory. The basic premise in information economics approach is that different parties to a transaction often have different amounts of information regarding the transaction, and this information differential has important implications for the relationship between the parties and the terms of the transaction. This information differential is called information asymmetry. One solution to information asymmetry is market signaling, where the party in possession of better information signals what he knows through his actions (Akerlof 1970; Spence 1974). Signaling theory involves the study of information economics under conditions in which parties to a transaction possess asymmetric information when facing a market interaction (Akerlof 1970; Spence 1974).

Signaling theory has been employed in investigating the signaling value of a variety of marketing activities. Firms often use different marketing and competitive variables to signal the quality of their products or their competitive intentions. Examples of such signals include Brand names (Akerlof 1970; Wernerfelt 1988; Montgomery and Wernerfelt 1992, Rao and Reukert 1994), advertising (Nelson 1974; Kihlstrom and Riordan 1984), price (Wolinsky 1983; Milgrom and Roberts 1986; Bagwell and Riordan 1991), warranty (Wiener 1985; Lutz 1989), competitive actions (Heil and Walters 1993; Milgrom and Roberts 1986; Prabhu and Stewart 2001), and preannoucement of competitive actions (Eliasberg and Robertson 1988). Appendix A includes a list of the different type of signals that have been investigated in the marketing literature over the last three decades.

Brand Name as a Signal. Brand names can serve as signals of product quality (Akerlof 1970; Wernerfelt 1988; Montgomery and Wernerfelt 1992, Rao and Reukert 1994). Within the signaling theory tradition, there are two possible ways in which a brand signal might work. First, the risk reduction hypothesis suggests that the brand signal is an indicator that reduces the likelihood of a bad outcome for the buyer (Montgomery and Wernerfelt, 1992). Since the consumer may be uncertain about the quality of unfamiliar brands, signals indicate that specific brands have small variance in their average quality. This minimizes the risk of a bad outcome for the consumer. Erdem and Swait (1998) empirically found that a brand signal increases the perceived quality of the brand while decreasing information costs and perceived risk for consumers. Second, the bonding hypothesis portrays the investment a company undertakes in developing brand names as a collateral or a "bond" for product quality (Wernerfelt 1988). If the claim associated with a brand is one of high quality and the brand turns out to be of poor quality, consumers can punish the brand by withholding repeat purchase, engaging in negative word of mouth, or calling for regulatory action (Nelson 1974; Wernerfelt 1988). Since those punishments are monetarily harmful to the firm, consumers are held to reason that the company would not risk the accumulated investment in building their brand, therefore these investments can be thought of as a " bond" and guarantee to the level of quality that the product provide, even if it was unobservable prior to purchase and use.

Brand Alliance as a Signal. Rao and Ruekert (1994) argue that brand alliances can also serve as credible marketplace signals. Their argument, which rests on the bonding hypothesis, is that firms with established brand reputations will not lightly expose the brand to alliances with low quality products. To do so is to negate the value of the brand name as a signal (Wernerfelt 1988). Therefore, they suggest that the presence of a second brand name on a product can "serve as quality signals when an individual brand is unable to signal quality by itself" (1994, p. 89). While Montgomery and Wernerfelt (1992) argue that the risk reduction hypothesis is superior since it allows for the existence of unbranded products, research in brand alliance signaling has been based primarily in the bonding tradition. For example, the explanation for brand alliances provided by Rao and Reukert (1994) was supported by Rao et al. (1999) who showed that signals were effective when product quality was a priori unobservable and when the signal was credible. A credible signal occurs when the ally is exposed to large monetary losses, that is when the ally posts a bond.

Furthermore, Rao and Ruekert (1994) propose that brand alliances can serve two purposes. One is providing assurance about the overall quality of the product, when the unobservable quality of the product is suspect (i.e., the product is an experience product). Alternatively, a brand alliance can convey information about the availability of a specific product attribute, even when the product quality is observable (i.e., the product is a search product). They further argue that in the first case brand alliances are more likely to take place between a brand in need of overall quality perception enhancement (e.g., NutraSweet when it was first introduced to the market) and a well-known brand with high reputation (e.g., Coca-Cola). Whereas in the later case, brand alliances are likely to take place between a brand in need of a specific attribute enhancement and a brand that has this attribute. For example, Slim-Fast through an alliance with Godiva can signal better chocolate taste in its chocolate cakemix (Rao and Ruekert 1994). Both of the previous propositions found empirical support in the brand alliance literature (e.g., Rao, Qu, and

Ruekert 1999; Voss and Tansuhaj 1999; Xiang and Mishra 2002; Voss and Gammoh 2004; Jones 2004).

Both of the previous propositions found empirical support in the brand alliance literature. For example, Rao, Qu, and Ruekert (1999) empirically examined the circumstances in which a brand alliance can enhance consumer perceptions of quality. The authors show that the addition of a second brand (a reputable brand ally) was effective in enhancing consumer quality evaluations of a fictitious unknown brand when product quality was a priori unobservable and when the signal provided by the brand ally was credible. A credible signal occurs when the brand ally is exposed to large monetary losses (Rao and Ruekert, 1994). Voss and Tansuhaj (1999), in experiments with Japanese and U.S. subjects, examined the hypothesis that consumers, aware of the potential losses facing a well-known brand, should infer from a co-promotion alliance an endorsement of the unknown brand's quality by the well-known brand ally (Rao and Ruekert 1994). They found that consumer evaluations of an unknown brand from another country were more positive when a brand ally was used. In addition, Washburn, Till, and Priluck (2000) examined the effects of co-branding on the brand equity of both the composite and the participating brands. Within an experimental design that include different combinations of brands with high and low initial brand equity, they found that low equity brands can benefit from associating with high equity brands.

In another study, Levin et al (1996) found that relative to an unknown branded ingredient, adding a well-known branded ingredient enhance product evaluations of both unknown and well-known hosts brands. Similarly, McCarthy and Norris (1999) found that branded ingredients consistently enhanced the evaluation of moderate quality host brands. Further, in an alliance between a national brand and a private brand, Vaidyanathan and Aggarwal (2000) found that adding a well-known national brand of raisins to a fictitious private-label brand of raisin bran improved product attitudes and quality perceptions compared to a non-aligned strategy.

Park, Jun, and Shocker (1995) within a co-branding alliance “Jaguar sedan by Toyota” examined the influence of the attribute saliency and performance level of the participating brands on the composite brand attribute evaluation. Overall, their results indicate that the attributes associated with partner brands could be successfully transferred to the co-brand product. For example, they empirically demonstrate that if an attribute were salient in one of the participating brands, it would also be salient in the composite brand. Desai and Keller (2002) compare a self-branded ingredient strategy in which the host brand owns the attribute ingredient new brand name to a co-branded ingredient strategy in which the attribute ingredient is branded using an identified brand name that is owned by another firm. They provide evidence that when the extension involves adding a new attribute to the host product, relative to a self-branded ingredient a co-branded ingredient leads to a more favorable evaluation of both the initial expansion and the subsequent category extension. An examination of the previous studies shows that these overall quality endorsement and/or attribute enhancement benefits of brand alliances were evident regardless of the brand alliance form examined by the researcher (i.e., co-promotion, co-branding, or ingredient branding).

In the next chapter, based on the finding that a brand alliance can serve as an effective signal of quality for consumers (Rao and Reukert 1994; Rao, Qu, and Ruekert 1999). I argue that for a firm considering a brand alliance, the brand product quality should influence the firm propensity to engage that brand in a brand alliance moderated by the firm different motivations to brand ally.

Park, June, and Shocker (1996) used a concept combination model to examine the effectiveness of composite brand alliances. In an experimental study using a fictitious composite brand extension, they found that consumers' evaluation of a composite extension (Slim-Fast chocolate mix by Godiva) appears to be better than a direct extension (Slim-Fast chocolate mix /or Godiva chocolate mix) depending on their perceptions of the favorability and the complementarity between the constituent brand names. Park et al. (1996) conceptualized brand complementarity at the attribute level, such that, two brands are complementary to each other when the performance-level strengths and weaknesses of their relevant attributes mesh well together.

Using information integration theory, Simonin and Ruth (1998) examined the effect of pre-existing attitudes toward the involved brands, product fit, and brand fit on the effectiveness of brand alliances on consumers' attitudinal evaluations of the brand alliance and the subsequent evaluation of the participating brands. According to the authors, product fit refers to consumer perception of the compatibility between the two products irrespective of the brands. For example, a personal computer brand would have a high degree of product fit with a computer chip brand since personal computers need chips to function properly. On the other hand, brand fit refers to consumers' perception of brand image cohesiveness and consistency between the brands involved in a brand alliance. The authors reported a main study and two replication studies that revealed the following important findings. First, they found that pre-existing attitudes toward brands, product fit, and brand fit significantly affects consumers' attitudes toward the alliance.

Further, they state that collaborating with less favorable brands could also be successful if the brand represented a favorable fit in terms of product or brands.

This assertion is consistent with Park et al. (1996) earlier findings that a brand alliance between two complementary brands has a better attribute profile than a partnership between two highly favorable, but not complementary brands. Second, attitudes toward the alliance itself influenced subsequent impressions of both brands, which they called “spillover” effects. Furthermore, they provide evidence that unfamiliar brands compared to familiar brands receive greater spillover effects from the brand alliance.

Subsequent empirical findings in the literature are consistent with the asymmetrical “spillover” effects reported by Simonin and Ruth (1998). For example, Washburn, Till, and Priluck (2000) found that brands with low initial brand equity benefited the most from its association with high equity brands. Furthermore, the authors found that positive product trial experience improves the image of the combination, but it helped combinations with at least one low equity brand more. Along the same lines, McCarthy and Norris (1999) found that branded ingredients consistently enhanced the evaluation of moderate quality host brands, but occasionally enhanced the evaluation of higher quality brands.

In another research effort, Musante (2000) focused on investigating the nature and potential moderators of the “spillover” effects reported by previous research. More specifically, the author examined the impact that a brand alliance has on consumers’ subsequent evaluation of participating brands in term of brand image and favorability. Although, the author provided empirical evidence that image and favorability enhancement via an alliance may occur, he also showed that image or favorability could be diluted if aligning with a partner brand considered to be inferior on a given attribute. Musante (2000) also introduces the level of consumers' perceptions about partner's commitment to the alliance as a moderating variable that influences the realized "spillover" effects on participating brands. The author found that the higher the consumers' perceptions about the commitment of a partner to the alliance, the greater the likelihood of brand perceptions "spillover" on that partner brand. Along the same lines, Washburn (1999) found that co-branding strategy had a positive influence on customer-based brand equity of both the constituent brands and the cobrand.

Brand alliance research identifies "fit" between participating brands as an important variable influencing consumers' evaluation of a brand alliance (Park et al. 1996; Simonin and Ruth 1998; Carter 2002; Hadjicharambous 2001). The notion of "fit" has been defined and conceptualized in different ways. As mentioned earlier, Simonin and Ruth conceptualized "fit" in terms of product fit and brand fit. Product fit refers to consumer perception of the compatibility between the two products, irrespective of the brands, whereas, brand fit refers to consumers' perception of brand image cohesiveness and consistency between the brands involved in a brand alliance.

Park et al. (1996) conceptualized "fit" as the complementarity between the participating brands at the attribute level, such that, two brands are complementary to each other when the performance-level strengths and weaknesses of their relevant attributes mesh well together. Adopting Simonin and Ruth's model of consumer evaluation of brand alliances, Carter (2002) added country of origin fit as another predictor in the model. The author, defined country of origin fit as consumer perceptions of the compatibility of the country of origins of the brands involved in the brand alliance. He examined the relationship between country of origin fit and brand fit in influencing consumer attitudes toward a brand alliance under various conditions of brand familiarity. Within a cross-border brand alliance context, the author found that under conditions of high consumer brand familiarity, the effect of country of origin fit on brand alliance evaluation is mediated by brand fit. However, for conditions of low consumer brand familiarity, the mediation dissolves and country of origin effect has a direct effect on consumer attitude toward the brand alliance.

The issue of fit has also been explored by Jones and Boush (2003), the authors conceptualized the fit between participating brands, or as they call it complementarity, as a two-dimensional construct consisting of functional as well as symbolic complementarity. In general, their results indicate that complementarity plays a significant role in predicting consumers' evaluations of the brand alliance.

Research findings discussed above demonstrate that consumers' perception of "fit" between participating brands is positively related to their evaluation of a brand alliance. Taken all together, this research reveals that the notion of "fit" between the participating brands (e.g., product fit, brand fit, overall fit, symbolic complementarity, functional complementarity, attribute overlap, or goal congruency) is an important issue that influences consumer evaluation of brand alliances.

Other scholars adopted a variety of other theoretical perspectives in investigating brand alliances. For example, Levin and Levin (2000) employed social judgment theory in examining how affect is transferred between two brands linked in a dual alliance relationship. The authors were interested in examining how consumers' evaluation of brands is effected when they (the brands) are contextually linked as in dual-branding alliance. According to social judgment theory, depending on how the salient contextual information is framed (the anchor); two forms of context effects can be observed when two stimuli are linked together. Contrast effects take place when salient information acts as a comparison standard, thus promoting differences between the two stimuli (brands within a dual-brand). Assimilation effects take place when the salient information promotes similarities between the two stimuli. Overall, Levin and Levin (2000) found that when two brands are allied and both brands are described by the same set of attributes, then dual-branding reduces or eliminates contrast effects. In addition, when the two brands are allied and one is not well specified, the effect of dual branding is to increase assimilation effects. In a related study, Levin (2002) found further support for the observed effect of dual branding in reducing contrast effects.

Based on associative network models Samu, Krishnan, and Smith (1999) examined co-advertising alliances within new product introduction context. Their basic findings have implications for choices of ally and advertising strategy depending on the manager's goal for the promotion. If the goal is brand awareness, the ally should be high in complementarity and the promotion should use a top-down approach and attempt to increase brand – category similarity. On the other hand, if the goal is to create strong brand beliefs, the ally should be non-complementary and the promotion should use a bottom-up approach and attempt to increase brand differentiation (stress unique brand attributes).

In another study, Washburn, Till, and Priluck (2004) adopted an associative learning view in their investigation of brand alliances. The authors were interested in assessing the influence of brand alliances on consumers' evaluation of the alliance product on search, credence, and experience attributes as moderated by product trial. Overall, their results indicate that regardless of the initial perceived equity of the participating brands, brand alliances enhanced consumers' perceptions of the equity of the brand alliance as well as the participating brands. In addition, as hypothesized their results indicate that the ability of high equity allies to enhance consumer evaluation of the allied product attributes depends on whether the attribute is search, credence, or experience attribute. They found that allying with a high equity brand enhanced consumers evaluation of product attributes that can only be assessed after product trial (experience attribute), and to a lesser degree, credence attributes that might not be verifiable even after trial, but did not enhance search attributes at all even after product trial.

From a resource dependency theory perspective, Rodrigue and Biswas (2004) examined the moderating role of consumers' perceptions of alliance dependency and exclusivity within Simonin and Ruth's basic brand alliances evaluation model. According to the authors alliance dependency refers to consumers' perception about participating brands degree of dependency on the alliance. An independent ally brand is "a branded product that can be purchased and consumed on its own, that is, outside of its alliance" with the host brand, whereas a dependent ally brand cannot be purchased and consumed on its own outside of its alliance with the host brand. On the other hand, alliance exclusivity refers to consumers' perception of whether the ally brand engage in an exclusive contract with the host brand or chooses to contract with more than one partner. Their results support previous findings in the literature with respect to brand alliance spillover effects. In addition, the authors empirically demonstrated that improved attitudes toward the brand alliance significantly enhanced consumers' perceived quality, willingness to pay a premium price, and purchase intensions toward the allied product. More importantly, the authors found that the moderating effect of exclusivity and dependency depends on whether the brand serves as the host or the ally brand in the alliance relationship. They found that the spillover on the host brand is moderated by exclusivity but not dependency and vice versa for the ally brand.

Voss and Gammoh (2004) employed signaling theory in examining brand alliances that involve the partnership of one focal brand with multiple brand allies. While their results showed that allying with two brands improved the evaluation of the unknown brands relative to a no ally condition, the addition of the second ally did not improve subjects' evaluations in comparison to the single ally condition. In a related research, Gammoh and Voss (2003) suggest that consumers' level of involvement might influence their evaluation of brand alliances. This suggestion was put to an empirical test by Gammoh, Voss, and Chakraborty (2004; 2006). Within an elaboration likelihood model (ELM) framework the authors examined the effect of a brand ally at different levels of cognitive elaboration and message argument strength. Their results suggest that when cognitive elaboration is low and the ad contains strong arguments the ally serves to attest for the veracity of the statements. On the contrary, under high cognitive elaboration and weak arguments the presence of a reputable ally tends to endorse product functionality.

Jones (2004) investigated whether consumers recognize brand alliances as a strategy intended by firms to communicate a new or enhanced product in the market place. The author found that consumers perceive cobranding relationships as an intended action by the partners and that consumers' confidence in their judgment of the assignment of ownership between partner brands depends on perceived brands congruence and the type of cobrand (ingredient vs. composite brand). In addition, the author found that a brand ally might reduce consumer perceptions of risk allowing the brands to charge a price premium. Within the context of multiple brand alliances, Fang and Mishra (2002) investigated the influence of the level of variability in the quality of partner's brands and the homogeneity of partners' product categories on the perceived quality of an unknown brand. Their results indicate that the perception of the unknown brand is the highest when both allies have high brand quality partners. Furthermore, the authors report that category heterogeneity will enhance the quality of the unknown brand for both the high-high/low-low alliances but not for the high-low mixed alliances. Overall, these studies demonstrate that while brand alliances are effective, the effects of brand alliances differ depending on the context (Fang and Mishra 2002; Voss and Gammoh 2004; Gammoh and Voss 2003; Gammoh, Voss, and Chakraborty 2004; Jones 2004).

Summary of Findings. Taken together, this review of the brand alliance literature reveals several contributions to our understanding of brand alliances from the consumer perspective. There are five important findings. First, we conclude that a brand alliance can be an effective strategy to signal unobservable quality when consumers lack accurate information regarding the brand's true quality. Such a strategy can also convey information about the availability of a specific attribute even when the quality of the product is *a priori* observable. Second, consumers' existing attitudes toward constituent brands influence their evaluations of the brand alliance. Third, past research has shown that how well the two brands fit together influences the consumer's evaluation of the brand alliance. Fourth, past research demonstrated the existence of asymmetrical "spillover effects" of brand alliance on the subsequent evaluation of participating brands. Fifth, past research also identified a host of personal and contextual factors that influence (moderate) consumer evaluations of brand alliances.

Its important to mention that, recognizing the potential negative influence of brand alliances on participating brands, some brand alliance researchers suggest that future research should address issues related to brand alliance formation and management or proposed some approaches to study the brand alliances phenomena from a managerial side (Rao and Reukert 1994; Norris 1992; Kippenberger 2000). Yet, to date, those few managerially-oriented discussions and propositions found in brand alliance literature remain at the conceptual level. For instance, the early work in brand alliances by Rao and Reukert (1994) drew conceptual insight from the literature in strategic alliances. The authors developed a managerial decision template to analyze the costs and benefits of joint branding and discussed some implications of such decisions for different types of allies. Within the context of retail co-branding, Dahlstrom and Dato-on (2004) apply Oliver's (1990) conceptualization of the determinants of inter-organizational exchange to propose six antecedents that influence the likelihood of establishing a co-branded retail location. They defined retail-co branding as the situation in which two or more retail concepts are made available at the same retail location. The antecedent conditions include necessity, asymmetry, reciprocity, efficiency, stability, and legitimacy. Miao (2004) applied strategic compatibility to provide a rationale for why a high/low status brand alliance may work. The author conceptualized strategic compatibility as a second-order construct composed of resource complementarity, interdependence asymmetry, and objective compatibility. He proposes that when resource complementarity is high, interdependence asymmetry is low, and objectives are compatible, mixed status brand alliances are likely to succeed in the long run. With these three exceptions, there is a lack of theoretical as well as empirical research that has examined brand alliances from a firm perspective (Rao and Reukert 1994; Dahlstrom and Dato-on, 2004; Miao 2004).

Research Gap

This review of the brand alliance literature reveals that brand alliance research has typically emphasized consumer side investigation of brand alliances. As mentioned earlier, although all of these studies have greatly contributed to our general understanding of brand alliances from a consumer perspective. Attending to only the consumer side of brand alliances provides a one-sided, narrow vision of the phenomenon. In an exhaustive search of the literature, no study has been identified that sufficiently examined brand alliances from the firm perspective. As a result, the formation, management, and outcomes of inter-firm brand alliances are still largely unexplored. The lack of a firm-side investigation of this phenomenon is a fundamental limitation in the extant brand alliance literature. This dissertation is a first step toward overcoming this limitation.

Chapter Summary

This chapter started with a review of relevant research in strategic alliances formation, thus, highlighting the different groups of antecedents of strategic alliance formation found in the literature. Through a review of brand alliance literature, this chapter ends by demonstrating that a consumer perspective dominates extant brand alliance research. The next chapter will draw upon streams of literature reviewed in this chapter to develop a conceptual framework of brand alliance formation and generate hypotheses for a subset of this framework in which individual-level factors (i.e., managers attitude toward brand alliances), firm-level factors (i.e., previous alliance experience, alliance formation competence, and firm's motivations to form brand alliances), and brand-level (i.e., brand product quality) are empirically examined as antecedents of firm propensity to brand ally.

CHAPTER III

PROPOSED MODEL AND RESEARCH HYPOTHESIS

This chapter is organized into three sections. The first section begins with a discussion of some of the potential avenues for research into firm brand alliance behavior. As discussed in the first chapter, the shift in focus from consumer evaluation of brand alliances to firm brand alliance behavior opens several streams of potential research including: antecedents of brand alliance formation, partner selection in brand alliances, brand alliances management, factors influencing the success of brand alliances, and spillover effects on partner brands and overall performance. This chapter argues that the logical first-step in investigating firm brand alliance behavior is to focus on the antecedents of firms' brand alliance formation.

The second section presents a conceptual framework of the antecedents of brand alliance formation. This framework has as its foundation the literature and theories reviewed in the previous chapter. Next, section three present and thoroughly discusses a subset of this framework which will be empirically tested in this dissertation. Therefore, this section includes detailed definitions of included constructs and generate testable hypothesis.

Potential Research Avenues

As previously discussed, brand alliance research from a firm perspective is overlooked, and thus, there remain a host of avenues to be explored. In considering a brand alliance a firm should ask itself several questions related to whether to ally or not, what are the benefits and costs of the alliance, with whom to ally, what is the best way to ally, how to manage the alliance, what is the potential effects of the alliance on its brands, and what factors influence the alliance performance outcomes. In general, those issues can be grouped into three potential research directions: including brand alliance formation, management, and performance and outcomes. In what follows I will briefly discuss, within each of those research directions, some interesting research questions that yet need to be explored regarding firm brand alliance behavior (see Figure 4).

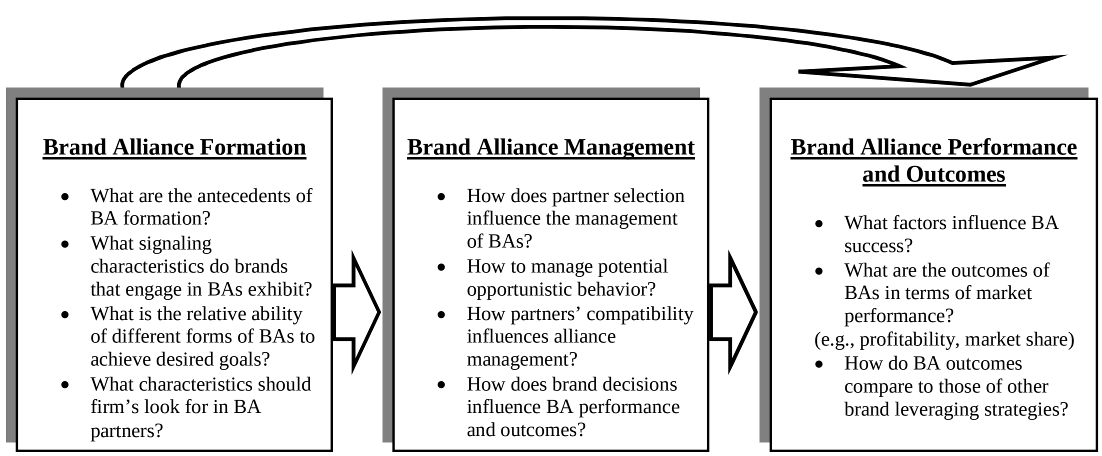


Figure 4
Potential Research Avenues Into Firm Brand Alliance Behavior

Brand Alliance Formation

Forming a brand alliance is a complex and demanding decision, it involves an assessment of whether a brand alliance is a viable strategy for achieving the goals in mind and what type or form of brand alliance a firm should choose. This is followed by searching for potential partners, assessing the partner's compatibility, and commitment (Rao and Ruekert 1994). For example, an interesting area of research is to investigate the antecedents of brand alliance formation. These antecedents could range from factors related to the internal characteristics of the firm (e.g., managers' attitudes and experiences, products characteristics, and brands characteristics) to external industry and environmental related factors (e.g., competitive intensity and environmental uncertainty). In addition, another group of antecedents could be related to potential partners characteristics (e.g., availability of partners, attractiveness of partners, and partners compatibility).

Another interesting area of research is to investigate the ability of different forms of brand alliances in achieving different desired goals. Firms' often form brand alliances for a number of reasons and have various options and alternatives at their disposable in forming a brand alliance (i.e., co-adverting, branded ingredient, co-branding). Therefore, firms need to decide on the optimal form of cooperation through brand alliances that enable them to achieve their intended goals. For example, is it enough for a firm seeking enhancement of a specific attribute to engage in joint-promotion activities with a brand ally that possess this attribute? Or does it need a more tangible form of brand alliance such as using a branded ingredient to enhance consumers' evaluations on the attribute it lacks.

Another potential area of research is partner selection in brand alliances. Forming brand alliances involves an assessment of the availability of potential partners, their reputation and potential contributions. For example, research could address issues related to how partner characteristics such as similarity, resource complementarity, and commitment might influence partner selection in brand alliances. A firm considering linking its brand to another brand through a brand alliance should be concerned about the fit between those two brands markets, positioning (Park et. al., 1996; Simonin and Ruth 1998), and how that might reflect on the success of the alliance as well as the future performance of the individual brands standing alone. Therefore, partner selection is a critical issue that will also influence on brand alliance management as well as performance outcomes.

Brand Alliance Management

Despite the rapid growth of brand alliances, such inter-firm cooperation is still considered risky (Rao and Reukert 1994; Simonin and Ruth 1998). A partner may behave opportunistically and use the alliance to achieve his own goals at the expense of the other partner. Even, in the absence of any opportunistic behavior, a brand alliance can expose companies to the risk that one partner’s performance may simply fail to meet customers’ expectations, thus damaging the brands of the other alliance member (Abrahams and Granof 2002). Such concerns are further compounded by the unpredictable effect of such alliances on consumers’ evaluations of the participating brands. Therefore, brand alliances pose significant management challenges. Research is needed to aid our understanding of how to manage brand alliances more effectively. For example, consistent with the commitment-trust theory of relational exchange (Morgan and Hunt 1994) researchers might investigate how trust and commitment between partners in a brand alliance influence its management.

Brand Alliance Performance and Outcomes.

Another promising direction for brand alliance research is the investigation of the determinants of brand alliance success. Brand alliances are built to achieve a variety of goals such as enhancing position in current markets, entering into new markets, adding value to the firm existing product mix, decreasing risk, and reducing cost (Norris 1992; Rao and Reukert 1994; Park et al. 1996; Voss and Tansuhaj 1999; Desai and Keller 2002). Whatever the firm goals for entering a brand alliance, one key aspect of the success of the alliance is the achievement of those goals. Many issues need yet to be addressed with respect to brand alliances success and its determinants. For example, an interesting research question is how firm specific characteristics or partner characteristics might influence the success of the brand alliance. Along the same lines, research addressing the impact of brand alliance formation on involved brands as well as overall firm performance holds significance for brand alliance research. In addition, there are issues having to do with the external industrial and environmental forces that influence the success of brand alliances.

Where to Start

It is obvious that no single study can address all of these concerns regarding brand alliances formation, management, and performance outcomes. It is common within the various research fields that involve the study of inter-organizational relationships to first focus on relationship formation considerations before further investigation into the management and performance outcomes of such relationships (Gulati 1995; Varadarajan and Cunningham 1995). Gulati (1998) argues that strategic alliance formation is one of the critical areas for the study of strategic alliances. Consistent with this tradition, it seems essential at this point in the development of brand alliances research to emphasize the antecedents of brand alliance formation, rather than on other issues related to the management, performance, and outcomes of brand alliances. It seems logical that improving decisions regarding brand alliances requires a better understanding of its antecedents and is a preliminary step before more investigations into alliance management and or the link between brand alliances strategies and performance. In addition, a focus on the antecedents of brand alliance formation is required for firms to fully utilize the advantages provided by brand alliances. As Rao and Reukert (1994) put it,

> "Clearly the managerial questions involved in brand alliances are not trivial. Such decisions often tend to have long-term consequences and should not be entered lightly, without adequate analysis or thought." (Page 96)

Enhancing our understanding of the antecedents of brand alliance formation should direct future research and contribute to improvement of managerial practices with respect to brand alliances. In summary, given the increasing proliferation of brand alliances in contemporary markets, the importance of understanding the determinants of brand alliances formation cannot be understated. The study of the antecedents of brand alliance formation is the logical step toward the development of research into firms' brand alliance behavior. As such, in the next section I integrate existing theories and literatures reviewed in the previous chapter in conceptualizing a comprehensive framework of the antecedents of firms' brand alliance formation.

A Framework of Brand Alliance Formation

Based on the literature reviewed in the previous chapter several groups of antecedents may have an impact on the firm's formation of brand alliances. More specifically the review of previous research on the antecedents of strategic alliance formation in the management and marketing disciplines showed that a firm's alliance formation is contingent upon a number of internal environment (i.e., individual-level and firm-level), partner-related, and external environment related antecedents (e.g., Frazier 1983; Varadarajan and Cunningham 1995; Gulati 1993, 1998; Eisenhardt and Schoonhoven 1996; Das and Teng 2000). The point is that firm's brand alliance formation does not occur in a vacuum. As with other forms of firm strategic alliances it is influenced by broader individual, organizational, and environmental contexts that shape the firm's intensions and action. Therefore, an important issue in developing a framework of the antecedents of firm's brand alliance formation is the selection of factors at different levels inside and outside the firm.

For the purposes of this dissertation and consistent with the strategic alliance formation literature summarized in the previous chapter, I propose that the antecedents of brand alliance formation can be broadly grouped into the following five sets of antecedents: internal environment antecedents at the (1) individual-level (e.g., previous alliance experience); the (2) firm-level (e.g., alliance formation competence); and (3) brand-level (e.g., brand product quality); as well as (3) partner-related antecedents (e.g., organizational compatibility); and (4) external environment antecedents (e.g., environmental uncertainty) — see Figure 5.

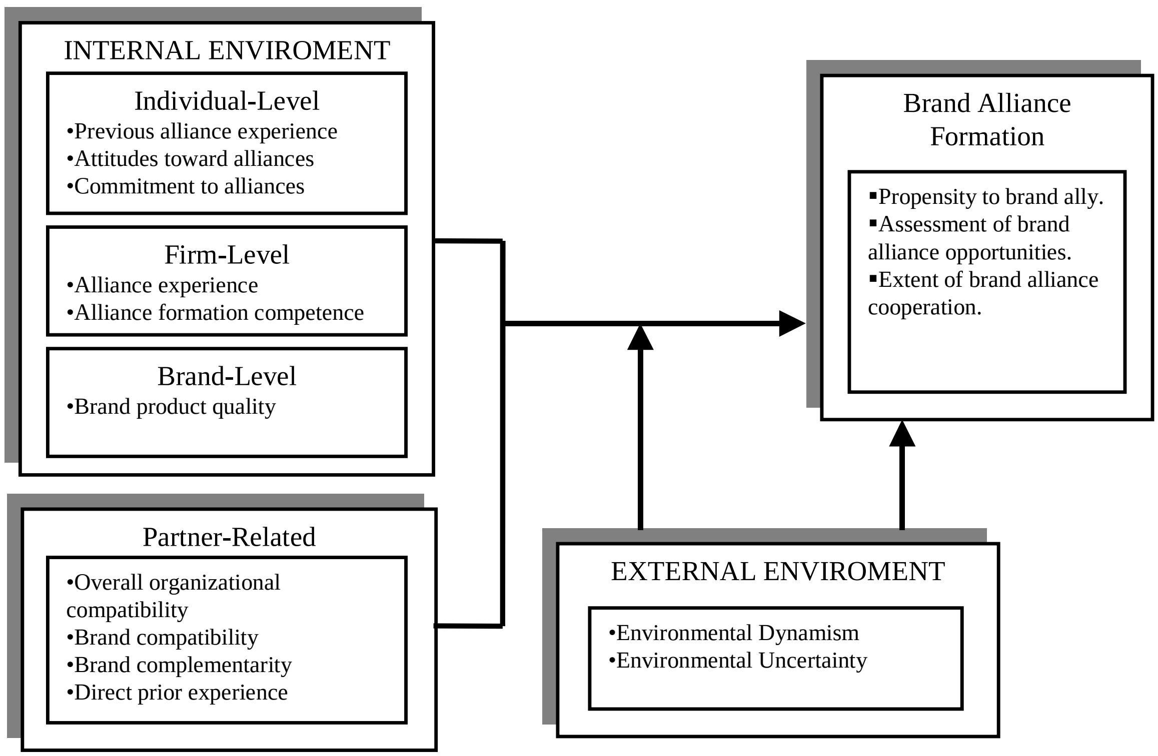


Figure 5

A Framework of Brand Alliance Formation

In this dissertation I utilize extant research in strategic alliance literature to develop a framework of brand alliance formation — a crucial perspective overlooked by extant brand alliance research. In addition, I contribute to both literatures by conceptually proposing and empirically investigating brand-level antecedents of brand alliance formation. More specifically, I examine brand product quality as antecedents of firm's propensity to brand ally. In what follows I introduce some of the potential dependent variables when considering brand alliance formation followed by a discussion of the conceptual reasoning for these four sets of antecedents, respectively.

Brand alliance formation consists of those decisions and issues surrounding the choice of brand alliance strategy such as the decision of whether to ally or not, the determination of the optimal form or type of brand alliance a firm should choose, and the assessment of the availability of potential partners as well as the desirability of their characteristics, etc. As shown in Figure 5, a number of potential dependent variables could be investigated in considering brand alliance formation including propensity to brand ally, assessment of brand alliance opportunities, and or extent of brand alliance formation. This is consistent with the strategic alliance literature in which these dependent variables have been investigated when studying the antecedents of strategic alliance formation (see Table 3 in Chapter II). For example, Harrigan and Newman (1990), within a joint venture context, develop a framework of inter-organizational cooperation. A major component of their framework concentrates on the assessment of the propensity of firms to seek joint ventures. Harrigan and Newman argue that each firm's relative propensity to form a joint venture is, in part, driven by factors related to benefits and costs of cooperation, resources offered, other available alternatives, and the need for cooperation. Along the same lines, Varadarajan and Cunningham (1995), in their seminal article on strategic alliances, discuss the motives underlying the entry of firms into marketing strategic alliances. The authors propose that firms' propensity to enter into strategic alliances is influenced by firm, industry, and environmental characteristics. Chung et al. (2000) show empirically that the likelihood of firms' engagement in an alliance is positively related to resource complementarity and status similarity. Tyler and Steensma (1998) empirically investigated the effects of executives' experiences and perceptions on their assessment of potential technological alliances. Executives were asked about the attractiveness of the proposed relationships and the probability that they would pursue such a relationship. Other researchers investigated firms' characteristics, such as age, competitive position, product diversity, and alliance experience, as important predictors of their propensity to engage in strategic alliances (Shan 1990; Fladmoe-Lindquist and Jacque 1995).

Individual-Level Antecedents

This group of factors seeks to provide insight on how (product or brand) managers' attitudes, perceptions, and experiences, affect brand alliance formation. The literature reviewed in the previous chapter highlighted the role that decision maker's play in their firms' strategic choices, in addition they provide consistent evidence for the influence of individual-level factors on firm strategic choices. The basic premise of this literature is that top managers affect firm-level outcomes primarily through the decisions or strategic choices that they are empowered to make on behalf of the firm (March and Simon 1958; Hambrick and Mason 1984). Hambrick and Mason (1984) argue that top managers' attitudes, perceptions, and experiences influence their strategic choices.

In addition, researchers in the strategic alliance literature emphasize the role that key decision maker's play in the firm decision with regard to strategic alliances (e.g., Larson 1992; Ghoshal and Moran 1996; Eisenhardt and Schoonhoven 1996; Tyler and Steensma 1998). Along the same lines, marketing strategic alliance researchers recognized and empirically demonstrated the role that decision makers play in the firm's choices with respect to marketing cooperative behavior (e.g., Frazier 1983; Varadarajan and Cunningham 1995). A number of individual-level antecedents have been shown to influence firm's propensity to engage in alliances and the rate with which it form such alliances, including managers' previous alliance experience, managers' attitude toward alliances, and managers' commitment to alliances. For example, Varadarajan and Cunningham (1995) proposed that prior involvement in strategic alliances and top management's attitude toward strategic alliances are antecedents of the firms' propensity to enter into strategic alliances. Furthermore, Tyler and Steensma (1998) found that top executives' personal work experiences, their perceptions of their firms' attitudes toward technology and risk, and their perceptions about their firms' past success with collaboration influence their cognitive assessment of potential technological alliances. In conclusion, research shows that the experiences, attitudes, and commitment of decision makers within firms have a significant effect on firm-level strategic decision. Therefore, it is logical to assume that the firm decision to brand ally, like other forms of strategic decisions, is likely to be influenced by the individual characteristics of decision makers.

Firm-Level Antecedents

An important firm-level antecedent is the firm's alliance formation competence. Strategic alliance researchers acknowledge the value of alliance formation competence as an important antecedent for strategic alliances formation and management (e.g., Gulati 1995, 1999; Simonin 1997; Sivadas and Dwyer 2000; Lambe, Spekman, and Hunt 2002). For example, Simonin (1997) introduces the construct of "collaborative know-how" which he defines as the extent to which firms have skill in identifying, negotiating, managing, monitoring, and terminating collaborations. Along the same line, Lambe, Spekman, and Hunt (2002) define alliance formation competence as the firm ability to find, develop, and manage alliances. Sivadas and Dwyer (2000) develop and test a construct they labeled “cooperative competency” which they conceptualized as a midrange variable composed of three interrelated facets: trust, communication, and coordination. They view cooperative competency as a property of the relationship among the relationship partners.

Strategic alliances are loaded with many complexities and uncertainties related to the assessment of the benefits and costs of engaging in alliances, the identification and assessment of potential partners, and the negotiation of the terms and structure of the relationship. Under these circumstances, alliance formation competence provides the firm with the ability to better cope with those complexities and uncertainties (Gulati 1999; Sivadas and Dwyer 2000). For Example, Gulati (1995) argues that the possession of alliance formation competence can be a significant catalyst for firms considering new alliances. The author shows that learning from prior experience in alliances is an important base for alliance formation competence. Gulati’s (1999) evidence that firms’ build alliance formation competence with experience, which, in turn, enables them to form new alliances with greater ease and frequency. In a more recent effort, Lambe, Spekman, and Hunt (2002) show that alliance formation competence contributes to alliance success, both directly, and indirectly through the acquisition and creation of resources. Lambe et al. (2002) conceptualized alliance formation competence as consisting of the following three facets: (1) alliance experience, (2) alliance manager development capability, and (3) partner identification propensity.

In summary, the above research demonstrates the important role that a firm's alliance formation competence plays in its assessment and formation of potential future alliance opportunities. A firm with alliance formation competence is in a position to better understand the dynamics and complexities of alliances formation. Therefore, it's expected that alliance formation competence positively influences brand alliance formation (Gulati 1999; Sivadas and Dwyer 2000; Lambe et al. 2002).

Along the same lines, brand alliance formation is a difficult and complex decision (Rao and Reukert 1994; Simonin and Ruth 1998). A firm needs to consider several aspects with respect to the decision to brand ally. These include, but are not limited to, the benefits and costs of engaging in such alliances, the optimal form of cooperation through brand alliances, the availability of potential partners, their reputation, and potential contributions. Firms that possess alliance formation competence are more comfortable with their abilities to deal with the complexities associated with brand alliance formation, therefore, are more likely to engage in brand alliances. Therefore, it is logical to assume that the firm brand alliance formation (i.e., likelihood to brand ally), like other forms of alliances, is likely to be influenced by the firm's alliance formation competence.

Brand-Level Antecedents

Literature reviewed in the previous chapter emphasized the role that the resources owned by a firm play in its strategic choices. More specifically, researchers of strategic alliances have long argued that a firm's resources position significantly impacts its motivation to engage in alliances and thus is a reliable indicator of a firm's alliance formation behavior. Indeed, much of the empirical research in strategic alliances and marketing strategic alliances uses factors related to the characteristics of firm's resources in explaining its alliance behavior (e.g., Oliver 1990; Spekman and Sawhney 1990; Varadarajan and Cunningham 1995; Das and Teng 2000).

For example, Varadarajan and Cunningham (1995) argue that the characteristics of firms' resources are one of the forces that influence their propensity to form strategic alliances with each other. For example, they suggest that brand characteristics such as brand equity and reputation for product quality at both the product line and brand level influence firms' propensity to engage in cooperative strategic alliances. In their resource based theory of strategic alliances, Das and Teng (2000) view firm resources as important indicators of the likelihood of firms entering into strategic alliances. More specifically they argue that there are two related, but distinct, motives for firms to use strategic alliances: (1) to obtain others' resources; and (2) to retain and develop one's own resources by combining them with others' resources. Along the same lines, Eisenhardt and Schoonhoven (1996) demonstrate that alliances take place when firms in vulnerable strategic position seek the resources they lack through alliances formation, as well as when firms in strong social position capitalize on their assets to form alliances.

In summary, previous research has shown that firms' resource position can have a significant effect on the firm strategic alliance decisions. Therefore, it is logical to assume that the firm decision to brand ally, like other forms of alliance decisions, is likely to be influenced by the characteristics of the resources being shared within the brand alliance. Since the essence of a brand alliance is the pooling of partners' brand names to achieve each partner goals, it is most likely that a firm's brand alliance behavior is influenced by the characteristics of the brands being pooled. In the next section, based on consumer-side brand alliance research, I propose that brand product quality is an antecedent that influences the firm's propensity to brand ally. This issue has not been previously examined in either strategic alliance formation or brand alliance literature.

Partner-Related Antecedents

While individual-level and firm-level antecedents might be useful in understanding brand alliance formation, the decision to consummate a brand alliance might also depend on potential partner-related issues. A brand alliance involves at least two firms; as such a firm decision to enter into a brand alliance is likely to be influenced by antecedents related to the potential partner's characteristics. Therefore, the third set of antecedents includes partner-related antecedents. More specifically, I suggest that overall organizational compatibility and prior history with a potential partner firm to influence the firm formation of a brand alliance with that partner. In addition, I suggest that at the brand-level, compatibility and complementarity between the firm brand and the brand of the potential partner to influence the firm in forming a brand alliance with that partner. In what follows I establish the theoretical justification for those partner-related antecedents and how they apply to the context of brand alliances.

Factors such as strategic fit, cultural fit, and goals fit have been found to enhance the formation and management of inter-organizational cooperative activities — see Table 3 in Chapter II for definitions of these constructs (Saxton 1987; Ruekert and Walker

1987; Bucklin and Sengupta 1993; Brouthers 1995; Niren, Shelburn, and Rogers 1995). For example, Sivadas and Dwyer (2000) argue that the success of strategic alliances depends on the strategic fit among partners. Day (1995) stated that among the reasons for disappointment and frustration from alliances is the conflict in objectives and cultures between partners. Consistent with this, Tyler and Steensma (1995) in their investigation of executive’s evaluations of technological collaborations found that the greater the functional fit between potential partners, the more attractive the collaboration will be to top executives. More recently, Das and Teng (2003) presented a model of alliance performance in which they propose that the fit between partner firms holds the key to predicting alliance performance. Incorporating all of these factors, Achrol et al. (1990) introduced the concept of organizational compatibility to include strategic, cultural, and goal fit.

In recap, previous research demonstrated that compatibility with potential partners, conceptualized in different ways (e.g., strategic, goal, cultural, and functional fit), is a critical factor in strategic alliance formation. Therefore, it is logical to assume that the firm’s decision to brand ally, like other strategic alliance decisions, is likely to be influenced by the overall organizational compatibility between brand alliance partners.

In addition, since the essence of a brand alliance is the pooling of the partners’ brand names, it is also likely that the firm’s propensity to ally its brand with the brand of a potential ally is influenced by the compatibility between the two brands. As discussed in the previous chapter, strategic alliance research demonstrated that the compatibility between partners shared resources are important antecedents of their cooperation (e.g., Dyer and Singh 1998; Harrison et al, 2001). In addition, consumer-side brand alliance research indicates that the compatibility between participating brands is an important variable influencing consumers' evaluation of brand alliances (Simonin and Ruth 1998; Hadjicharambous 2001; Carter 2002; Boo 2003).

The notion of compatibility or what's called "fit" in most of the brand alliance research has been defined and conceptualized in different ways. For example, Simonin and Ruth model brand alliance evaluations as a direct function of consumers' attitudes toward each brand, product fit, and brand fit. According to the authors product fit refers to consumer perception of the compatibility between the two products, irrespective of the brands. For example, a personal computer brand would have a high degree of product fit with a computer chip brand since personal computers need chips to function properly. On the other hand, brand fit refers to consumers' perception of brand image cohesiveness and consistency between the brands involved in a brand alliance. The authors found that product fit and brand fit significantly affects consumers' attitudes toward the alliance. Further, they state that collaborating with less favorable brands could also be successful if the brand represented a favorable fit in terms of product or brands. Therefore, beside the strategic and cultural compatibility between the two firms which might influence the formation of brand alliance from the firm level, the issue of compatibility at the brand-level is an additional consideration that should influence a firm propensity to brand ally with a potential partner. Compatibility at the brand-level should be considered in brand alliances because consumer evaluation of the brand alliance is largely influenced by consumers' perceptions of the compatibility between participating brands within a brand alliance.

Brand alliances are relationships between two or more firms that come together to share their brands. Dyer and Singh (1998) argue that full utilization of firms' resources may require a firm to use those resources in conjunction with complementary resources from other firms. As such, one reason to enter into alliances is for firms to leverage their current set of resources. As a result these firms search for partners that have complementary resources (Gulati et al. 2000). As discussed in the previous chapter several studies have illustrated the importance of complementarity in strategic alliances (Varadarajan and Cunningham 1995; Harrison et al. 2001; Ireland et al. 2002). For example, Shan and Hamilton (1991) found that complementarity of resources between domestic and foreign firms were critical to the formation of cross-border alliances in biotechnology. Nohria and Garcia-Pont (1991) report that in the global automobile industry, firms in certain strategic groups form alliances in a complementary manner with those in other strategic groups to improve the benefits of their cooperation. Similarly, Madhok and Tallman (1998) argued that alliances where partners have the potential to create synergy by integrating complementary resources have the highest probability of producing value. Finally, Chung et al. (2000) found significant support for the notion that resource complementarity drives alliance formation between two specific firms. In summary, research suggests that resource complementarity is a critical factor when considering strategic alliance formation.

Since the essence of a brand alliance is the pooling of partners' brand names, it is likely that a firm's engagement in a brand alliance with a specific potential partner is influenced by resource complementarity at the brand-level. In some situations, a brand alliance is motivated by the complementarity between participating brands. That is, complementarity in terms of usage occasion, brand associations, market positioning (Park et al. 1994, Jones and Boush 2002). This assertion is further supported by consumer-side brand alliance research where complementarity between participating brands has been identified as an important variable influencing consumers' evaluation of brand alliances (Park et al. 1996; Jones and Boush 2002, 2003; Jones 2004).

Park et al (1996) found that a brand alliance consisting of two complementary brands has a better attribute profile than a partnership between two highly favorable brands that are not complementary to each other. Along the same lines, Jones and Boush (2003) hypothesize that complementarity between participating brands to influence consumers' evaluation of the alliance product. The authors conceptualize brand complementarity as a two-dimensional construct consisting of functional as well as symbolic complementarity. In general, their results indicate that brand complementarity plays a significant role in predicting consumers' evaluations of the alliance product.

In conclusion, brand alliance research indicates that complementarity at the brand- level enhances consumers' evaluation of brand alliances. Since firms intentionally participate in brand alliances, to leverage their own brands by associating them with other brands with the purpose of enhancing consumer evaluations. It's logical to expect that a firm's formation of a brand alliance with a specific potential partner to be influenced by the complementarity between their own brand and the potential partner's brand.

Empirical work links the extent to which a firm has a direct prior relationship with a potential partner to the propensity to form relationships with that firm (Gulati 1995; Saxton 1987; Levinthal and Fichman 1988). For example, Gulati (1995) found that prior relationship between the partners influence the willingness to partner with that firm.

Further more, the author found that previously allied firms were more likely to engage in further alliances. Chung et al. (2000) found significant support for the notion that direct prior alliance experience drive alliance formation between two specific partner firms. Within marketing strategic alliances context, Bucklin and Sengupta (1993) argue that direct prior business relationships between partners in co-marketing alliances are related positively to the alliance effectiveness. To sum-up, prior affiliation, then, influences a firm's propensity to ally itself with a particular partner.

Part of the complexities associated with brand alliance formation are related to the assessment of potential partners, their contribution to the alliance, the potential for any opportunistic behavior, as well as the compatibility and complementarity with potential partner firm resources and capabilities, which make the formation of brand alliances difficult and complicated. In this situation, familiarity with a potential partner firm as a result of direct prior experience will enable the firm to better understand their partner and enhance their ability to assess any considerations they have with that potential partner. Therefore, I suggest that prior direct prior experience with a potential partner firm will influence the firm brand alliance formation with that partner.

External Environment

In order to more fully specify the framework of the antecedents of brand alliance formation, however, I also need to include the impact of the environment. No one would deny that the environment has an important influence on the firm. The establishment of strategic alliances as a way of the managing environmental dynamism and environmental uncertainty is one of the major ongoing interests in strategic alliances field (contractor and Lorange 1988, Harrigan 1988). More specifically, Das and Teng (2001) argue that firms are more likely to engage in alliances in industries that have high degree of environmental uncertainty. This view holds that firms seek to reduce environmental uncertainty by exchanging resources for mutual benefit. Further more, empirical support has been found for these contentions. For example, Thoumrungroje and Tansuhaj (2004) found that uncertainty in global markets positively influence the degree of cooperation in international co-marketing alliances. Dickson and Weaver (1997) found empirical evidence that perceived environmental uncertainty and environmental dynamism are two significant determinant of alliance use. These studiers all suggest that external environment is a critical factor when considering strategic alliances. Thus, I include environmental uncertainty and environmental dynamism as external environment variables that influence the propensity to brand ally.

Summary. As mentioned earlier, given the scarcity of published research that investigated brand alliances from the firm perspective, this study constitutes a first step in investigating brand alliances at the firm level. Although I propose a number of variables within each group of antecedents that might influence a firm's brand alliance formation (i.e., individual-level, firm-level, partner-related, and external environment related), as a first step, I focus my attention on some of these antecedents that relates to my research interests and holds potential contributions to the literature. More specifically, based on signaling theory and strategic alliance research respectively, I propose brand product quality and firm alliance formation competence as two important antecedents of propensity to brand ally. In addition, I examine the moderating effects of firm's motivational factors to brand ally and managers attitude toward brand alliances on these proposed relationships. This focus was necessary for two reasons. The first is related to potential contribution of this work. Based on an extensive review of related literature, this is the first study to theoretically propose and empirically examine brand-related antecedents of firm's propensity to brand ally. Moreover, although all other groups of antecedents proposed in the brand alliance formation framework (i.e., individual-level, firm-level, partner-specific level, and external environment) have not been empirically tested within the specific context of brand alliances. A long research tradition in strategic alliances in both the management and marketing disciplines provides consistent empirical evidence of the influence of these groups within a variety of other types of inter-firm alliances (e.g., marketing alliances, new product development alliances). Therefore, I make major contributions on two fronts. First, I direct my empirical investigation toward brand-related antecedents, thus allowing for an opportunity to test at the firm level some of the propositions found in the signaling literature. Second, I investigate the role of alliance formation competence and alliance experience in the context of brand alliances, which adds to the generalizability of the findings in the strategic alliance literature related to this issue.

The second reason I concentrate on those factors, and not for example partner-related issues, relates to data collection issues. First, my design permits the brand to be chosen as the study unit of analysis thus allowing for the sampling of different brands from the same firm. In addition, I expect it would be difficult to find a sample frame of firms that have already engaged in brand alliances. Second and more importantly, since my research focus is on the firm's propensity to brand ally, not actual alliance behavior, it was necessary to sample both firms that choose not to brand ally as well as those that choose to brand ally. Not doing so is to bias the sample toward firms who already participate in brand alliances (Gulati 1993; Ahuja 2000). Such a sample will not have enough variation in terms of the firm's propensity to brand ally. In addition, it will skew study results toward those firms who already favor brand alliances.

Antecedents of Propensity to Brand Ally

In the previous section I developed a framework of brand alliance formation. This framework attempted to review all relevant antecedent variables of alliance formation identified in the literature and group them into relevant categories regardless of how they relate to each other. My goal was not to explore and generate hypotheses with respect to the relationship between these variables in influencing alliance formation. However, in previous research these antecedents were treated as independent variables, moderators, and/or mediators depending on the research context and research focus (e.g., Dickson and Weaver 1997; Tabak and Barr 1999; Das and Teng 2002). In this section, I focus my attention on some of these antecedents that relates to my research interests and holds potential contributions to the literature. More specifically, based on brand signaling and brand alliance research, I propose brand product quality as an important antecedent of propensity to brand ally. In addition, based on strategic alliance research, I propose firm alliance formation competence as another important antecedent of propensity to brand ally. Furthermore, I examine the moderating effects of firm's motivational factors to brand ally and managers attitude toward brand alliances on these proposed relationships. These propositions will be empirically tested with rigorous research methods on a national sample of senior marketing executives and brand managers.

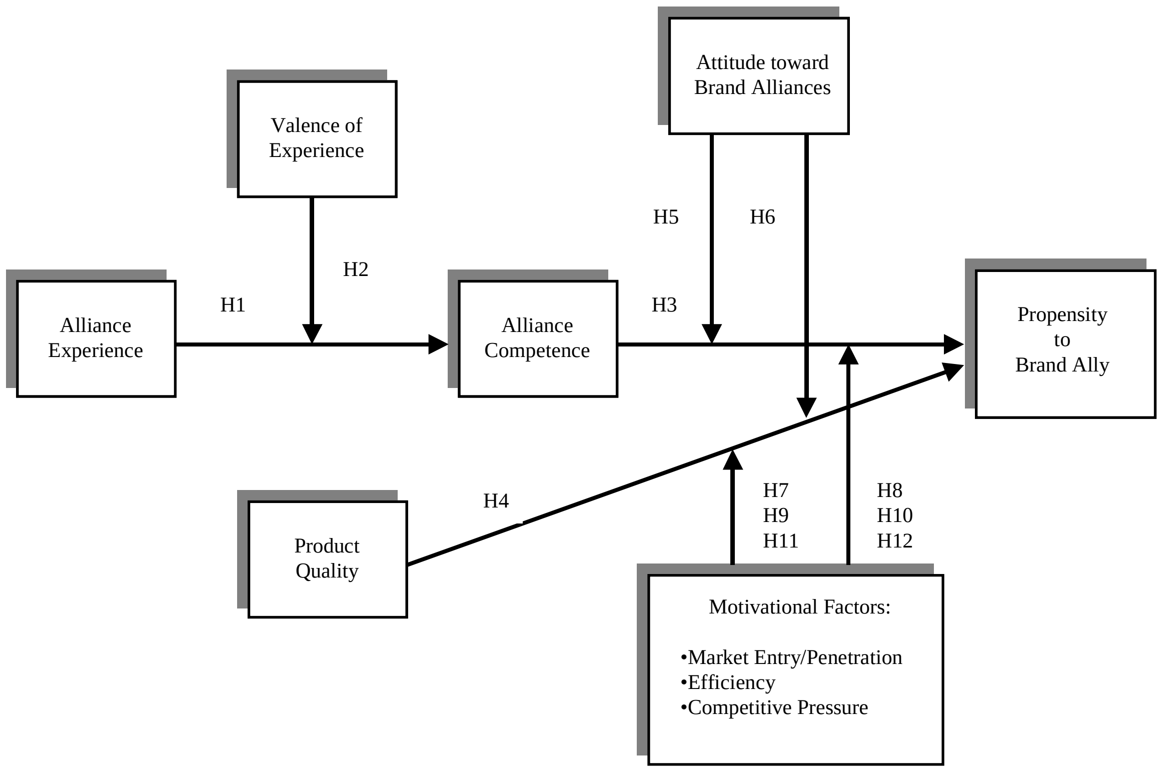


Figure 6

A Framework of Propensity to Brand Ally

Hypothesis Generation

The Dependent Variable. The dependent variable in this dissertation is the firm's propensity to participate in brand alliances. Anecdotal evidence suggests that firms differ in the frequency of their brand alliance behavior. For example, Smuckers is engaged in several brand alliances (with Brach's Jelly Beans and Kellogg's Pop-Tarts to name two) while other firms engage in few or no brand alliances. As with any other form of firm behaviors (e.g., alliances, branding, etc.) firms differ in their propensity to enter into brand alliances (Day 1995; Varadarajan and Cunningham (1995).

I formally define firm propensity to brand ally as the likelihood that the firm will engage a brand in brand alliances in the near future. I view this construct as an intentions construct. That is, it represents management's intention to engage in a brand alliance in the foreseeable future. I propose that a firm's propensity to engage a brand in brand alliances depends, in part, on the brand product quality and firm alliance formation competence. In this study, I take the perspective of the firm, represented by its brand managers, considering brand alliances as a potential branding strategy.

Independent Variables. The model in Figure 6 contends that the propensity to enter a brand into a brand alliance depends on alliance competence and the brand's level of product quality. In turn, alliance competence depends on the firm's experience in alliance activities, which is referred to in the model as alliance experience. The relationship between alliance experience and alliance competence should be moderated by the valence of the alliance experience. That is, if a firm has deep and positive experience in alliances then the firm will likely develop a strong set of skills that enable effective cooperation with others in these relationships. On the other hand, if the firm has little experience with alliances, or negative experiences with alliances, it is less likely, on average, to develop a strong set of enabling skills. The model also suggests that the effects of alliance competence and the brand's product quality on the propensity to brand ally, will be moderated by the decision maker's attitude toward brand alliances. That is, even if the firm has a strong set of alliance skills and top-notch product quality, thereby enabling effective brand alliances, these assets will not be brought to bear if the manager has an unfavorable view of brand alliances. Lastly, the proposed model suggests that three types of motivational factors moderate the effects of alliance competence and the brand's product quality on the propensity to engage the brand in brand alliances. These factors are internal efficiency, market access and or penetration, and competitive pressure. These constructs and the proposed relationships are discussed in detail below.

Alliance Experience and Alliance Competence. Alliance experience is defined as the extent of the firm's involvement in alliances in general (see Table 3 in Chapter II). Prior experience in alliance activities is important because this is the major venue the firm and its managers have to learn about managing cooperation, communicating with partner managers regarding sources of competitive advantage, and integrating alliance output into the firm's internal processes (Lambe, Spekman, and Hunt 2002, Varadarajan and Cunningham 1995). An important aspect of the firm's learning to function in inter-firm relations involves the development of organization routines, structures, and processes that facilitate the acquisition, storage, retrieval, and dissemination of knowledge (Simonin 1997). As firms gain experience in inter-firm alliances managers learn to identify those special types of knowledge that can be easily transferred to, and effectively used in, other contexts (Levinthal and March 1993). Gulati (1999) suggests that firms' alliance experience leads directly to specific skills that improve the organization's ability to form and manage alliances. One important such skill may be the knowledge of when and where to enter into an alliance. Other key skills may include the identification of suitable partners, identify complimentary and compatible resource profiles, and the capability to create communication systems that facilitate cooperation and coordination among the partners.

Alliance competence is defined as the organization's ability for finding, developing, and managing alliances (see Table 3 in Chapter II). Alliances are complex arrangements that regularly demand approval from multiple authorities at different levels within the firm, require joint decision making tasks on a routine basis, as well as considerable insight and deftness and managing relationships that may or not have contractually agreed roles and rules (Gulati 1999). Alliance competence is a toolbox of acquired skills that allow managers to meet the demands of the cooperative venture without causing undue stress on the organization and its employees. Because research has shown that alliance competence is generally developed over long time horizons (see Day 1995; Lambe, et al 2002; Simonin 1997), it is widely thought that a firm will need to participate in several alliances over a period of time, rather than a single alliance (Lambe et al. 2002). Firms that lack the necessary skills to be effective partners in major alliances are thought to develop their skills by participating in a series of smaller, less involved alliances from which they learn.

From the foregoing, it is clear that alliance experience and alliance competence are tightly linked constructs. Alliance competence represents a set of specific skills useful in alliance relationships. These skills are built through experience in these inter-firm relationships. Prior research has shown a significant relationship between these two variables (e.g. Gulati 1999; Lambe et al. 2002). Thus,

H1: Alliance experience is significantly related to alliance competence.

However, previous research can be criticized because the relative quality of the experience in alliances has been ignored. For example, Gulati (1999) asserts that alliance formation capability is a function of alliance experience, but ignores the valence of the experience and never empirically tests the proposition. Lambe et al. (2002) confuse the issue by considering alliance experience a dimension of alliance competence. However, experience is an arena in which needed skills can be acquired and improved, it is not itself a skill. Further, their measure of alliance experience focuses on the number of alliances in which the firm has participated, thereby ignoring the quality of the experience. In this dissertation, I propose that the valence of the firm's prior experience in alliances will moderate the relationship between alliance experience and alliance competence.

Operant learning theory suggests that the quality of experience is an important determinant of how the firm develops skills and capabilities. The learning curve principle suggests that skills become well-practiced and routinized after many repetitions of the behavior. When experience is positive, it acts as a reinforcing mechanism that rewards and encourages repetition (Skinner 1966). In organizational learning research, it has been shown that once firms build a capability they tend to engage in repetition to refine and improve the capability (Amburgey, Kelly, and Barnett 1993; Gulati 1999, Levinthal, and March 1993; Nelson and Winter 1982). When experience is negative on the other hand, it tends to encourage adaptive behavior that inhibits repetition (Skinner 1966). In fact, negative experiences may lead firms to terminate their participation in alliance activity, thereby negating the opportunity to develop alliance competence (Skinner 1966). I therefore hypothesize:

H2: The relationship between alliance experience and alliance competence is different at different levels of valence of experience.

Alliance Competence and Propensity to Brand Ally. Previously, I defined the propensity to brand ally as the likelihood that the firm will engage a brand in brand alliances in the near future. I view this construct as an intentions construct. That is, it represents management's intention to engage in a brand alliance in the foreseeable future.

When firms have a high competence in finding, developing, and managing alliances cooperative relationships with other firms, they should have a higher propensity to seek out alliances of all types, including brand alliances. This line of reasoning has been explored in the strategic alliances literature. For example, Boeker 1997 suggested that firms with strong alliance competence may develop mindsets that focus attention on finding and forming new alliances. Empirical support was found for this idea by Gulati (1999) and Simonin (1997).

Anecdotal examples exist of firms within strategic alliances implementing brand alliances as part of their wider cooperative schema. For example, Northwest Airlines and KLM Dutch Airlines entered into a strategic alliance, part of which included a common logo that joined both of their brand marks and brand names together in one symbol (Valente and Carey 1989). The research reviewed in Chapter 2 shows that there are many benefits from engaging in brand alliances. A firm with high alliance competence, one that is searching for opportunities to use cooperative relationships for mutual advantage, should be interested in realizing the benefits that brand alliances can provide. A principal benefit that can accrue is brand building. Brand building is a function of positioning the brand in ways which allow the consumer to connect it with quality (Erdem and Swait 1998). Such placement strengthens the associations consumers have regarding the brand's quality. Thus, firms can use their acquired capabilities in forming alliances to enter brand alliances that help further their own brand's reputation as well as furthering the reputation of their partner's brand. Therefore,

H3: Alliance competence is significantly related with the propensity to brand ally.

Product Quality and Propensity to Brand Ally. A unique contribution of my dissertation is the addition of brand-related factors as an explanatory variable for the propensity to engage in brand alliances. I rely on signaling theory as a base to explain the importance and function of the variables in my conceptual model (Figure 6). However, the inclusion of brand-related factors is a natural fit within the conceptual traditions of strategic alliance research. This is because researchers in strategic alliances explicitly recognize the importance of resource-related factors in explaining alliance behavior. And a brand is a strategic resource for most firms.

Product quality is the superiority or excellence of a product when compared with alternatives from competitors (Zeithaml 1988). Product quality plays a fundamental role in the theory of signaling with brand names. One fundamental premise in signaling theory is that consumers need a method of distinguishing the quality of brands (Akerlof 1970) in situations when product quality is not discernible prior to purchase (Nelson 1970, 1974). Importantly, signaling theory contends that the manufacturer of the brand has superior insight into the actual quality of the brand relative to the customers — which is an example of information asymmetry (Stigler 1961). When such information asymmetry occurs, the party with superior information will find it profitable to signal the other party as to what is the actual state of affairs (Rao and Reukert 1994).

While there are many potential methods by which firms may signal customers, the brand name is one of the most researched mechanisms (Akerlof 1970; Erdem and Swait 1998; Montgomery and Wernerfelt 1994; Wernerfelt 1988; as well as many others). The brand name is an important signaling device because it creates a separation equilibrium (Spence 1974). Building a well-known, reputable brand name takes a significant investment of both time and money. Since the brand name identifies the manufacturer it effectively enables the customer to sanction the signaler in monetarily harmful ways (Rao and Reukert 1994; Rao, Qu, and Reukert 1999). Thus, it is economically inadvisable for a low quality firm to cheat by signaling high quality. In the face of this disincentive, only well-known brand names connote superiority in terms of product quality (Akerlof 1970; Rao and Reukert 1994). That is, while firms that market low quality products may utilize brand names, they have an economic disincentive to engage in brand building exercises that build reputation and enable signaling (Montgomery and Wernerfelt 1992). In essence, low quality firms need not have well-known brands because when customers do not know the brand, or do not connect strong quality associations with the brand, the customer will assume the brand is of the low quality type (Akerlof 1970).

The conclusion that must be reached is that firms that offer low quality products will not engage in signaling, while those that offer high quality products may engage in signaling. I note here that there is an important distinction among the high quality brands. This distinction is based on the brand's reputation. In other words, while many brands may be high quality, some of them will be well-known in the marketplace — customers will have connected high quality with the brand in such a way that they interpret the brand as a mark of quality. On the other hand, other high quality brands, because they may be new brands in the marketplace or because they have not engaged in building a reputation for high quality, will find it difficult to signal quality using their brand name.

In their seminal paper, Rao and Reukert (1994) proposed that brand alliances are useful for high quality firms that are handicapped in signaling their true quality. That is, Rao and Reukert suggest that brands with both high quality and strong reputation can ally with brands that are of high quality but lack the reputation necessary to send credible signals. Erdem and Swait (1998) and Rao, Qu, and Reukert (1999) provide empirical support for the notion that credibility is required for successful signaling with brand names and brand alliances. Thus, high quality firms of both types, strong reputations for quality and no/weak reputation for quality, may engage in brand alliances. Accordingly,

H4: Product quality is significantly related to the propensity to brand ally.

The Moderating Role of Attitude Toward Brand Alliances. An attitude is a relatively enduring, positive or negative evaluation of stimuli (Cohen and Areni 1982). In a conceptual paper, Varadarajan and Cunningham (1995) argue that management attitude towards alliance should be related to the firm's propensity to enter strategic alliances. This idea is also captured in Hambrick and Mason's (1984) conceptual framework of management characteristics' effect on managerial decisions. While this idea has not been explicitly tested, the results of Tyler and Steensma (1995, 1998) support the idea that managerial perceptions and cognition effect managerial decision-making.

In this dissertation, I consider the more specific case of management attitude toward brand alliance (A_{BA}). Expanding on the provocative ideas of Varadarajan and Cunningham (1995) I suggest that A_{BA} will have a moderating effect on the effect of alliance competence on the propensity to engage in brand alliances. For example, a firm might have built considerable alliance competence participating in strategic alliances but if the managers in the firm have negative A_{BA}, the firm would be unlikely to have an intention to engage in brand alliances in the future. Why would a manager have a negative A_{BA}? One reason is that brand alliances, unlike many strategic alliances, are publicly visible phenomena. Research in alliances indicates that many firms value the strategic alliance specifically because it can be a non-public form of communication (Voss, Johnson, Cullen, Sakano, and Takenouchi 2005). One of the competencies that manager's may develop is that of keeping the cooperative effort out of the public eye. Managers with this perspective may naturally shy away from the more publicly visible forms of strategic alliances, including brand alliances. Another reason is the perceived risk of the transaction. Brand alliances connect two brands together in the public eye, for good or for bad. As the research of Simonin and Ruth (1998) show, the effects of brand alliances, whether positive or negative, will spillover onto all the brands involved in the alliance. Thus,

H5: the relationship of alliance competence on the propensity to brand ally is different at different levels of manager's attitude toward brand alliances.

By the same reasoning I suggest that A_{BA} will moderate the relationship between product quality and the propensity to brand ally. When a manager has an unfavorable

A_{BA}, that manager will be unlikely to enter the brand into a brand alliance, irrespective of the brand's attributes. On the other hand, if a brand is of the high quality type and the manager has favorable A_{BA}, then brand alliances will be a more viable option. Thus, I am suggesting that for the firm to possess strong brand alliance intentions it must have both a high quality brand and managers with positive A_{BA}.

H6: the relationship of alliance competence on the propensity to brand ally is different at different levels of manager's attitude toward brand alliances.

The Moderating Role of Motivation. Research in strategic alliances has long recognized the role of motives in the formation of inter-firm cooperative arrangements (Achrol, Scheer, and Stern 1990; Glaister and Buckley 1996; Spekman and Sawhney 1990; and Varadarajan and Cunningham 1995). In this dissertation I consider three specific types of motivation that play a role in the firm's brand alliance intentions. I view these motivations as being equally applicable to both types of high quality brands, those for which the consumer has established connections between the brand and quality and those for which the consumer has not established connections between the brand and quality. These three are referred to as market entry or penetration, efficiency, and competitive pressure in my conceptual model (Figure 6). I will discuss each of these three in turn.

Market entry or penetration refers to the firm's desires to build sales in new or different product markets or in new or different country markets. Previous conceptual work by strategy scholars has indicated that alliances can be useful for firms entering new product or country markets. For example, Varadarajan and Cunningham (1995) suggested that alliances can enable firms to circumvent entry barriers, broaden product lines or fill product line gaps, acquire new skills, and or shape industry structures. Alliances can also be useful in international expansion since firms can utilize cooperative partnerships to overcome their lack of local market knowledge and their lack of access to distribution channels (Glaister and Buckley 1996; Varadarajan and Cunningham 1995). Thus, alliances provide firms the opportunity to offset their own weaknesses with the strengths of their cooperative partner.

In the same way, a brand alliance allows a less known, unfamiliar brand to offset its weakness with the strength of its brand allies' reputation (Rao and Reukert 1994; Voss and Gammoh 2004). That is, firms that perceive their high quality brand's sales potential in a new or different market is inhibited by the customer's lack of quality associations may find a brand alliance useful in correcting that deficiency[1]. For example, Voss and Tansuhaj (1999) argued that brand alliances were useful for entering a brand in a foreign market in which the brand is not well known. Conversely, if brands do not have strong sales motives for their brand, for example if they are selling all they can produce, then alliances will not be an appealing option. Thus,

H7: The relationship between product quality and the propensity to brand ally will be different at different levels of market entry or penetration motivation.

H8: The relationship between alliance competence and the propensity to brand ally will be different at different levels of market entry or penetration motivation.

[1] Importantly, I am not arguing the all firm's with strong market entry or penetration goals will use brand alliances, only that firms that lack such motivation will see no advantage is using a brand alliances.

Efficiency motivations revolve around the firm's desires to increase marginal profits by reducing costs or by choosing the lowest cost alternative that provides a desired benefit. While all firms are assumed to have efficiency as a motive, I am more concerned with how the firm attempts to achieve efficiency. Once again, alliance researchers have held that alliances can allow firms to achieve efficiency. For example, Varadarajan and Cunningham (1995) suggest firms may achieve efficiency by sharing distribution channels, sales force, or warehousing. The same idea has been evidenced in the brand alliance research. Voss and Tansuhaj (1999) suggested that brand alliances allow firm entering new international markets to achieve brand awareness and market coverage at a lower cost than going it alone. Firms, however, that do not believe that a brand alliance can allow them to improve efficiency will not have as strong an intention to enter their high quality brand into such a cooperative agreement. That is, when a firm sees the brand alliance relationship as a viable method of achieving its efficiency goal it will be more likely to engage in brand alliances than firms that do not perceive the brand alliance as a useful tool for achieving efficiency.

H9: The relationship between product quality and the propensity to brand ally is different at different levels of efficiency motivation.

H10: The relationship between alliance competence and the propensity to brand ally is different at different levels of efficiency motivation.

Competitive pressure motivations involve the firm's desires regarding a valued market position. The brand's position in the market is affected by the position attained by its direct competitors (Hauser and Shugan 1980; Huber, Payne, Puto 1982). Thus, if a competitor takes an action with respect to its brand, pressure is felt by the other firms in the market. For example, when a firm enters a new product in a market a destabilizing effect occurs that forces competitors to respond (Porter 1980). The same effects may be observed if the firm increases its level of advertising, opens new distribution channels, or engages in a brand alliance. Thus, firms that feel that brand alliances are necessary to maintain their position with respect to their competitors will be more likely to engage in brand alliances than firms that do not feel such pressure. Once again, competitive motives have also been considered in prior published strategic alliance literature (see Achrol et al. 1990; Spekman and Sawhney 1990; Varadarajan and Cunningham 1995).

H11: The relationship between product quality and the propensity to brand ally is different at different levels of competitive motivation.

H12: The relationship between alliance competence and the propensity to brand ally is different at different levels of competitive motivation.

Chapter Summary

This chapter started with a discussion of some of the potential avenues for research into firm brand alliance behavior. Next, a conceptual framework of the antecedents of brand alliance formation was discussed. Finally, a subset of this framework, which will be empirically tested in this dissertation, was presented. As such, this section included detailed definitions of constructs and generated testable hypothesis.

Next chapter present the research design and methodology used to empirically test these hypotheses. In addition, the next chapter describe in detail procedures for the data collection, the development of the new scales and the measurement instrument.

CHAPTER IV

RESEARCH DESIGN AND METHODOLOGY

This chapter is organized into three sections. The first section discusses the research design and methodology used in data collection. This includes identifying the study sampling frame, choosing the survey approach, describing procedures for the selection of key informants, providing a detailed discussion of the data collection procedures, and reporting the response rate and non-response bias assessment. The second section discusses the measurement aspects of this study including the operationalization of study constructs and the development of the measurement instrument. Finally, section three briefly presents the type of data analysis techniques and procedures that were used for data analysis, measurement quality assessment, and hypotheses testing.

Research Design

Population

The target population of this study is brand names in the United States. A brand name was selected as the unit of analysis in this study for the following reasons: first, the research objective is to study the antecedents of the firm's propensity to engage a specific brand in a brand alliance; second, this will allow for the inclusion of multiple brands for the same firm.

Sample Frame

Since the study focused on the propensity to engage a specific brand in a brand alliance, ideally the brands under study would have been drawn from the total population of all brands in the U. S. There is no convenient sampling frame of all brands in the U. S. Nor was it practical, or even feasible, to construct a sample frame for such a widely dispersed and constantly varying population.

As a result, in this dissertation, I chose to use an existing sample frame that while not completely comprehensive in its coverage of U.S. brands, is large enough that it contains a reasonable diversity of brands and firms, in all geographic areas, in 44 industries. The specific sampling frame chosen for this study was "The BrandWeek Directory" of brands provided by VNU Business Publications, the publishers of Adweek and BrandWeek magazines. This directory includes a listing of 6,900 U.S. brands with the firm's name and 18,000 personnel associated with those brands at both the corporate and brand marketing level. Marketing and brand level executives associated with these brands listed in the database were chosen as respondents. This sampling frame represents a reasonable approximation to the overall population of the study, and selection bias should be minimal.

Survey Approach

The survey research approach was selected for this study. Survey research is a common research approach that has been used in a large number of marketing and strategic alliance research studies that measured some of the variables of interest in this study (e.g., Sengupta and Bucklin 1993; Tyler and Steesnsma 1995, 1998; Lambe et al.

2002). This approach has several advantages. It enables researchers to study geographically dispersed populations fairly quickly and at a relatively low cost (Deshpande 1982). In addition, the survey approach enables researchers to obtain information about a firm by collecting data from selected people within the organization who are highly knowledgeable about the phenomena under study (i.e., key informants) (Campbell 1955).

The measures used in this study record individual perceptions of the brand's key decision-makers about their firm (alliance experience, valence of experience, alliance competence, motivational factors to brand ally, and propensity to brand ally), the brand in question (level of brand product quality), and themselves (i.e., attitude toward brand alliances). More specifically, a self-report questionnaire survey was conducted among key informants associated with brand management inside the firm (senior marketing and brand executives) to obtain information on the independent variables and the dependent variable (a detailed discussion of the survey development and pre-testing procedures is provided in the next section).

Key Informants. Senior marketing and brand executives (e.g., vice presidents of marketing, chief marketing officers, Chief brand officers, marketing directors, senior brand managers) who have been directly responsible and involved in decisions and activities associated with brand development and management issues are key informants in this study. These individuals are at a level in the firm's hierarchy were they are likely to be well informed and knowledgeable of significant strategic issues in the firm, such as strategic alliances. Therefore, the respondents were in a position that enables them to provide an accurate perspective related to the firm-level constructs examined in this study (e.g., alliance formation competence). I took steps as recommended in the literature to qualify key informants in this study. Following Kumar, Stern, and Anderson (1993) I administered a set of global questions to assess informant competency. These questions included items assessing the manager's experience in the industry, inside the firm, and with the specific brand as well as a series of questions designed to reveal the informants perceived qualification to report on the issues in this study. Specifically, I asked informants to respond on a 1 to 7 Likert-type scale anchored by strongly disagree to strongly agree to nine different items. Those items taped into the respondent level of competence in assessing issues related to firm partnership experience, skills, capabilities, as well as motivations with respect to the brand in question. (e.g., I have adequate knowledge to assess this firm's experience with respect to managing relationships with other firms." A detailed description of study respondents and their competence assessment is provided in the next chapter.

Key Informants Selection and Data Collection Procedures

Once the sampling frame was obtained, the first step was to select a large initial random sample (n = 9,985) of potential subjects. Next, the 9,985 potential subjects were examined to delete duplicates (duplication occurred in many cases because one subject was often responsible for the marketing/branding decisions for more than one brand within the same firm), subjects who occupied a non-marketing and/or non-brand level positions, and subjects with missing critical information (e.g., the brand name, the firm's name, contact information, etc.). Of this sample, 5,964 subjects were removed for one or more of the previously discussed reasons, thus, reducing the initial sample pool to (n = 4,021) subjects each representing a distinct brand.

I implemented Dillman's (1978) recommendations to improve survey responses in the data collection procedures. Because research has shown that response rate is maximized with incentives and pre-notification or reminder follow-ups (Helgeson, Voss, and Terpening 2002), several procedures were used to improve response rate. First, as discussed next respondents were phone contacted in advance of sending the questionnaire to solicit their participation. Second, response incentives were used to encourage response (i.e. sharing a summary of the findings and a $2 donation to the American Red Cross Hurricane Katrina Fund for every complete returned survey). Third, approximately three weeks after the survey instrument was sent to agreeing participants, a reminder phone call, e-mail, or fax, was delivered to those who had not responded at that time.

Data collection involved a series of contacts that consisted of multiple phone calls, faxes, and/or e-mails over fourteen week period from early September to early December. As a first screening step and in an effort to facilitate response rate[2], phone calls were placed to each of the 4,021 potential subjects in an attempt to verify their position, solicit their participation, assess their competence to participate in the study, and ask for their preferred survey delivery method (i.e., mail, fax, or e-mail). When subjects' disqualified themselves from participation, they were asked to provide a referral to a more suitable potential respondent in their firm regarding the named brand.

A first phone call was made to each potential subject. If the potential subject could not be reached, I left a voice message on his or her voice mail or left a message

[2] Recent research demonstrated that committed respondents are much more likely to actually respond (e.g., Iyer 2001).

with the secretary. The phone conversation and the message left consisted of a brief self-introduction and a short description of the research, the incentives, and my phone number. Respondents were asked to call back. I made follow-up phone calls to those who had not responded to the phone call within a few weeks after the initial phone call. The respondents were informed that the approximate time to complete the study was about 15 minutes.

As a result of the phone calls, out of the initial 4021 subjects 2065 were determined to be wrong contacts and were removed from the sample pool for one of the following reasons: wrong phone number, the brand/firm is no longer in the market, the subject no longer works for the firm, and or the subject no longer in a marketing or brand management position. Out of the remaining 1,956 subjects 632 were reached and the remaining 1,324 were unreachable, even after multiple callbacks and voice messages. Out of the 632 subjects actually contacted 513 (81%) agreed to participate, 119 declined (19%). Corporate policies that prevented survey participation and busy work schedule were the most frequently cited reasons for declining.

Surveys were delivered to the (513) committed participants according to their preference either by mail, fax, or e-mail. Each mailed envelope included the study questionnaire, a self-addressed pre-paid return envelope, and a personalized cover letter on Oklahoma State University letter head. Faxes included an identical cover letter on Oklahoma State University letter head along with the survey, whereas, e-mails consisted of the cover letter with an attached electronic version of the survey. In the three survey delivery methods, the cover letter stressed the potential benefits that will accrue to the academic and professional discipline in brand management from this project. In addition, respondents were assured of confidentiality and offered a report of the results of the survey if interested. To boost response rate, subjects were asked to return the survey via the provided return reply envelope if mailed to them, by fax or mail if faxed to them, and by mail, fax, or e-mail if it was e-mailed to them. After approximately three weeks, a follow-up phone call or e-mail reminder was sent to committed subjects who had not responded by that time.

Response Rate and Non-Response Bias Assessment

Out of the 513 participants who agreed to participate 195 completed and returned the questionnaire for a response rate of 38%. The 195 subjects participating in this study represent 195 distinct brands. All of the questionnaires were carefully examined to assess the responses. Thirty seven of the questionnaires were unusable due to missing data on measures that are essential for testing the study's hypotheses; these were excluded from subsequent analysis. Most of the remaining questionnaires with missing data were those in which respondents had declined to provide information regarding sales for the brand, revenues for the firm, or some demographic information about themselves. However, these data were not essential for testing the study hypotheses, and thus all remaining respondents were included in the analysis. As such, the usable response rate is approximately 30.8% (158/513).

A potential source of bias in this study is non-response bias. Non-response bias occurs when there is a systematic difference between the respondent firms and the non-respondent firms (Parasuraman 1991). In order to assess whether there was any non-response bias, two methods were adopted.

The first is the comparison between the early and late responses as recommended by Armstrong and Overton (1977). All survey responses were divided into early and late response groups on the basis of their arrival dates (all received surveys were time and date marked upon receipt). This approach has been used in other, similar research to assess non-response bias (e.g., Iyer 2001). Questionnaires received from the initial mailing within the first four weeks after sending it were considered early responses. The rest of the returned questioners who were received only after a reminder was sent were included in the second group as late responses. As a result, 159 responses or 81.5% of total responses were included in the early response group, while the remaining 36 responses or 18.5% of total responses were included in the late response group.

Next, potential non-response bias was assessed by comparing the firms in the early response group to the firms in the late response group with respect to the number of employees and the annual sales. Using a chi-square difference test, it was determined that there were no significant differences ($\alpha = .05$) in both the number of employees (χ^2 = 10.034, df = 7, p = .187) and the annual sales among early and late response groups (χ^2 = 4.048, d f= 4, p = .4). In addition, a chi-square test was performed to compare the demographics of respondents between early and late response groups in terms of education. No significant differences ($\alpha = .05$) in respondents level of education among early and late response groups were found (χ^2 = 1.974, df = 4, p = .740). In addition, the means of the major constructs in this study were then compared in both groups through a series of ANOVA tests. No significant difference was found (see Table 6). Based on these results, non-response bias was not an inhibiting factor in the analysis of the survey data.

TABLE 6
MEAN DIFFERENCES BETWEEN
EARLY RESPONDENTS VS. LATE RESPONDENTS

Factor	df	F	Significance*
Alliance Experience	1, 180	1.498	0.223
Valence of Alliance Experience	1, 176	0.454	0.501
Alliance manager development capability	1, 180	0.55	0.459
Partner Identification Propensity	1, 180	1.277	0.260
Brand Quality	1, 193	0.024	0.877
Attitude to Brand Ally	1, 170	2.425	0.121
Propensity to Brand Ally	1, 190	2.325	0.129

* $p < .05$

Second, a comparison between incomplete surveys and complete surveys was conducted. This was based on the assumption that respondents who have excessive missing data were more similar to non-respondents. As a result, the 37 non-usable responses (19% of total responses) were included in the incomplete response group, while the remaining 158 responses (81% of total responses) were included in the complete response group. Analyses are conducted to see if there is any difference between these two groups on the available demographic data that might have contributed to the excessive missing data. Chi-square tests results show that the incomplete response group did not differ significantly ($\alpha = .05$) from the complete response group in terms of the number of employees ($\chi^2 = 6.595$, df,= 7, $p = .472$) and annual sales ($\chi^2 = 8.673$, df,= 6, $p = .193$) suggesting that non-response bias was not a significant problem in this investigation. In addition, ANOVA tests were used to determine if there were any significant differences between the two groups on the study major constructs. The means of the major constructs in the two groups were compared and it was found that there were no significant differences in responses (see Table 7 for details).

TABLE 7
MEAN DIFFERENCES BETWEEN
COMPLETE RESPONSES VS. INCOMPLETE RESPONSES

Factor	df	F	Significance*
Alliance Experience	1, 180	0.534	0.466
Valence of Alliance Experience	1, 176	0.420	0.518
Alliance manager development capability	1, 180	0.209	0.648
Partner Identification Propensity	1, 179	0.033	0.855
Brand Quality	1, 193	0.137	0.711
Attitude to Brand Ally	1, 170	0.647	0.422
Propensity to Brand Ally	1, 190	1.086	0.299

* $p < .05$

Measurement

This study is based on perceptions of key informants from participating firms regarding individual-level, firm-level, and brand-level factors that influence the firm's propensity to brand ally. As such, a self-administered questionnaire was designed. I review the scales used in this study below. Independent and dependent variables in this study were operationalized using multi-item measures as suggested by Bagozzi et al (1991) and Churchill (1979). A comprehensive search of existing scales that address the variables of the conceptual framework was conducted through detailed review of the literature on strategic alliances and marketing. Established measures and scales were used after adjusting them to the brand alliance context.

Dependent Variable

The firm's propensity to brand ally is the dependent variable in this study. Propensity to brand ally is defined as the likelihood that the firm will engage a brand in brand alliances in the future. This construct represents management's intention to engage in a brand alliance in the foreseeable future. Propensity to brand ally will be measured through the use of three-item scales tapping the brand manager's perceptions of the likelihood that their firm will engage the brand under consideration in a brand alliance in the reasonably near future. This approach is based on work in the strategic alliance literature (Harrigan and Newman 1990; Shan 1990; Tyler and Steensma 1995, 1998; Chung et al. 2000; Ahuja 2000). For example, Tyler and Steensma (1995, 1998) used two-item scale to measure executive's assessment of potential technological alliances. One of the items asked executives about the probability that they would pursue a given relationship on a seven-point Likert scale anchored by "very low/very high"; the other one assessed the relationship attractiveness (see Table 8 for items).

TABLE 8
PROPENSITY TO BRAND ALLY

	Very Improbable						Very Probable
What is the probability that this brand will participate in a brand alliance in the foreseeable future?	1	2	3	4	5	6	7
	Very Low						Very High
What do you think are the chances that your firm will engage this brand in a brand alliance in the foreseeable future?	1	2	3	4	5	6	7
	Very Unlikely						Very Likely
How likely is it that your firm will engage this brand in a brand alliance during the next year?	1	2	3	4	5	6	7

Predictor Variables

Alliance Experience. Alliance experience was defined as the extent of firm's involvement in alliances in general. Previous alliance experience was measured using a three-item scale utilized from Lambe et al. (2002). This measure operationalizes alliance experience as the quantity and depth of the firm's experience in cooperative inter-firm arrangements (see Table 8 for items).

TABLE 9
ALLIANCE EXPERIENCE

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding your firm's experience in alliances in general.

	Strongly Disagree						Strongly Agree
Our firm has a deep base of partnership experience.	1	2	3	4	5	6	7
Our firm has participated in many alliances.	1	2	3	4	5	6	7
Our firm has been partner in a substantial number of alliances.	1	2	3	4	5	6	7

Alliance Competence. Alliance competence was measured by utilizing a two-dimensional scale developed by Lambe, Spekman, and Hunt (2002). This scale attempts to capture only two of the many possible dimensions of alliance competence: the development of managerial capability with respect to inter-firm cooperation and the firm's activity in searching out new alliance partners. While this may be a shortcoming, the scale was shown by Lambe et al. to discriminate among firms with respect to alliance competence. Accordingly, I am using the scale as developed by Lambe et al. However, as a practical alternative, I am including in the survey a global measure of alliance competence. Both of these alternatives are shown in Table 10.

TABLE 10
ALLIANCE COMPETENCE

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding your firm's alliance experience.

	Strongly Disagree						Strongly Agree
Alliance Manager Development Capability							
Our firm has programs to develop capable alliance managers.	1	2	3	4	5	6	7
Our firm understands how to produce effective alliance mangers.	1	2	3	4	5	6	7
Our firm effectively trains competent alliance managers	1	2	3	4	5	6	7
Partner Identification Propensity							
Our firm actively searches for promising alliance partners.	1	2	3	4	5	6	7
Alliances that can help our business are sought out by our firm	1	2	3	4	5	6	7
Our firm is consistently seeking partnering opportunities.	1	2	3	4	5	6	7
Global Alliance Competence							
Our firm is highly skilled at those specialized tasks required in alliance relationships	1	2	3	4	5	6	7
Our firm has developed a wide range of capabilities in the area of inter-firm cooperation.	1	2	3	4	5	6	7
I feel confident that when it comes to alliances, our firm can fulfill all of its required roles.	1	2	3	4	5	6	7

Brand Product Quality. Product quality is defined as the superiority and excellence of a brand/product when compared with competitors' alternatives in the eyes of the customer (Zeithaml 1988). The construct was measured using a five-item Likert-type scale developed based on the work in Atuahene-Gima (1995) and Atuahene-Gima and Murray (2004). See Table 11.

TABLE 11

BRAND'S PRODUCT QUALITY

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding this brand.

	Strongly Disagree						Strongly Agree
This brand is of high quality.	1	2	3	4	5	6	7
This brand has superior product quality and reliability.	1	2	3	4	5	6	7
The quality of this brand compares well with competitors' brands.	1	2	3	4	5	6	7
This brand has the highest quality in the market.	1	2	3	4	5	6	7
This brand is of higher quality than the principal competing products.	1	2	3	4	5	6	7

Moderator Variables

Valence of Experience. I operationalized valence of experience as the relative positive-ness and or negative-ness of the firm’s alliance experience. Valence of alliance experience was measured with a four-item, seven point Likert-type scale measuring the quality of firm’s previous alliance experience. Because the negative and positive are probably negatively correlated dimensions of valence, I chose to measure only the positive dimension. The scale items were drawn from Sengupta and Bucklin (1993) after adjusting the items to fit the construct as defined in this study. The scale is displayed in Table 12.

TABLE 12

VALENCE OF ALLIANCE EXPERIENCE

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding your firm's experience in alliances.

	Strongly Disagree						Strongly Agree
The history of our partnership experiences may be characterized as positive and favorable.	1	2	3	4	5	6	7
Overall, our firm partnership experience over time has been rewarding and satisfying.	1	2	3	4	5	6	7
The relationships that my firm has had over time were very productive.	1	2	3	4	5	6	7
Our firm's relationships have been worthwhile.	1	2	3	4	5	6	7
In general, my firm's overall experience with alliances has been extremely good.	1	2	3	4	5	6	7

Attitude Toward Brand Alliances. The literature indicates that managerial attitudes influence the firm's alliance decisions. An attitude is a relatively enduring overall favorable or unfavorable evaluation of a stimuli. I utilize a relatively standard measure of attitude (e.g., MacKenzie, Lutz, and Belch 1986; Miniard, Bhatla, and Rose 1990) that includes three-items using seven-point semantic differential scale (see Table 13) to measure managers attitudes toward brand alliances.

TABLE 13

ATTITUDE TOWARD BRAND ALLIANCES

For each item below, please circle the number closest to the adjective that you believe best describes your feelings toward brand alliances.

Bad	1	2	3	4	5	6	7	Good
Favorable	1	2	3	4	5	6	7	Unfavorable
Positive	1	2	3	4	5	6	7	Negative

TABLE 14
MOTIVATIONAL FACTORS

How important is each of the following factors in motivating your firm to enter this brand into a brand alliance?

	Extremely unimportant						Extremely important
	1	2	3	4	5	6	7
Market entry/penetration motives							
Stimulating sales of brand products.	1	2	3	4	5	6	7
Access to important new markets.	1	2	3	4	5	6	7
Gain presence in new markets.	1	2	3	4	5	6	7
International market access.	1	2	3	4	5	6	7
Efficiency motives							
Minimize/sharing brand development costs.	1	2	3	4	5	6	7
Sharing of brand advertising. expenditures.	1	2	3	4	5	6	7
Lower production cost.	1	2	3	4	5	6	7
To pool resources.	1	2	3	4	5	6	7
Minimize product-lunching cost.	1	2	3	4	5	6	7
Long-term profitability.	1	2	3	4	5	6	7
Minimize marketing cost.	1	2	3	4	5	6	7
Competitive pressure motives							
Gain competitive market power.	1	2	3	4	5	6	7
To follow the lead of competitors.	1	2	3	4	5	6	7
Improve competitive position.	1	2	3	4	5	6	7
Maintain market position.	1	2	3	4	5	6	7
Reduce competition.	1	2	3	4	5	6	7
Attain market leadership.	1	2	3	4	5	6	7

Motivational Factors. Based on literature in strategic alliances and brand alliances, three major motives for brand alliances were identified. They are market entry/penetration, efficiency, and competitive pressure motives. The measures for these constructs are presented in Table 14 above. This scale follows previous work in strategic alliances literature (e.g., Parkhe 1993; Kasouf and Celuch 1997). For example, Parkhe (1993) assessed the firm's strategic need to enter into alliances by asking executives about the importance of different needs (i.e., motives) that drove firm's entrance into a strategic alliance (e.g., defensive strategic alliance to reduce competition).

Control Variables

An important consideration in this study was to control for the differences between firms in terms of individual manager traits (such as the managers years of experience and education), firm-related characteristics (such as firm size, branding strategy), and external environment factors (such as environmental dynamism and environmental uncertainty). Prior published literature has suggested these variables have significant relationships with propensity measures (e.g., Hitt and Tyler 1991; Tyler and Steensma 1998; Varadarajan and Cunningham 1995). These measures will be used to minimize error variance and control for alternative explanations of the data so that more meaningful inferences and generalizable conclusions may be drawn.

Individual Manager Traits. I used measures to control for respondent tenure, experience with the brand, job title, education, and competency as suggested by Kumar, Stern, and Anderson (1993). While, these questions were used in the initial respondent qualification stage, there is still likely to be variability among actual respondents along these traits. I included items in the survey to measure manager experience, education, and competency. The exact items are shown in Tables 15 and 16.

TABLE 15
INDIVIDUAL MANAGER TRAITS

How long have you been employed in this industry?	________ years	________ months				
How long have you been employed with this firm?	________ years	________ months				
How long have you been involved with this brand?	________ years	________ months				
How many alliances have you been personally involved with?	________ number	________				
What is your level of education (please circle one)?	High School	Some College	College Degree	Graduate Courses	Master's Degree	Doctoral Degree

TABLE 16
INDIVIDUAL MANAGER COMPETENCY

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding your experience in your industry, with your firm, and in alliances.

	Strongly Disagree						Strongly Agree
I have adequate knowledge to assess this firm's experience with respect to managing relationships with other firms.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's skills with respect to managing relationships with other firms.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's capabilities with respect to managing relationships with other firms.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's motivations with respect to sales growth for this brand.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's motivations with respect to profit goals for this brand.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's motivations with respect to reacting to the competition.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's goals with respect to the future direction of this brand.	1	2	3	4	5	6	7
I have adequate knowledge to assess this firm's motivations with respect to cost control goals for this brand.	1	2	3	4	5	6	7
I have adequate knowledge to assess this brand's product quality.	1	2	3	4	5	6	7

Firm-Related Characteristics. The number of employees and the annual sales of firm will be used as indicators of firm size. The firm's branding strategy (i.e., individual branding vs. family branding) was controlled by using a measure from Alashban, Hayes, Zinkhan, and Balazis (2002). A measure from the same source was used to control for brand category (industrial or consumer). I also included measures designed to capture brand category and brand age. My measures for firm-related characteristics are shown in Table 17.

TABLE 17
FIRM-LEVEL CHARACTERISTICS

What is the approximate annual sales of your firm (circle one)?	Less than $1 million	Between $1 million $10 million	Between $10 million and $50 Million	Between $50 Million and $100 Million	Over $100 million
What is the approximate number of employees in your firm (circle one)?	Less than 10	Between 10 and 100	Between 100 and 500	Between 500 and 1000	Over 1000
How long has your firm been in business?	________ years				
How long has your firm operated in this industry?	________ years				
What is the approximate annual sales of this brand (circle one)?	Less than $1 million	Between $1 million $10 million	Between $10 million and $50 Million	Between $50 llion and $100 Million	Over $100 million
How many brand names does your firm own?	________ number				
How long has this brand been on the market?	________ years	________ months			
Please indicate the category to which this brand belongs	________ Consumer	________ Industrial			
Please indicate the category to which this brand belongs	________ National	________ Private-Label			
How would you describe your firm's branding strategy (please circle a number below)?					

1. We use the same brand for all of our products.
2. We use variations of the same brand across products
3. We use completely different brands for some of our products.
4. We use a completely different brand for each one of our products

External Environment. In this study, two environmental dimensions will be used to control the environment's effects on the firm's propensity to brand ally. The external environment dimensions that will be measured in this study are environmental uncertainty and environmental dynamism. Subjective measures of the environmental dynamism and uncertainty will be used.

Environmental uncertainty was operationalized using four-items adapted from prior published literature (e.g., Atuaheme-Gima and Murray 2004; Jaworski and Kohli 1993; Milliken 1987; Miles and Snow 1978). These items capture the perceived unpredictability in the environment in terms of marketing practices, competitor behavior, product technology, and consumer demand patterns. I again used seven point Likert-type scales for these items (see Table 18 below).

TABLE 18
ENVIRONMENTAL UNCERTAINTY

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding the external environment in which your firm operates.

	Strongly Disagree						Strongly Agree
Changes in the marketing practices of our competitors is easy to predict.	1	2	3	4	5	6	7
The actions of our competitiors are easy to predict	1	2	3	4	5	6	7
Demand and consumer preferences are easy to predict	1	2	3	4	5	6	7
Changes in product technology within this industry are easy to predict.	1	2	3	4	5	6	7

TABLE 19

ENVIROMENTAL DYNAMISM

Please indicate the degree of changes in (marketing practices) (customers' preferences) (competitors practices) as they relate to the firm with respect to the following items:

	No Change						Very Frequent Change
Dynamism in marketing practices.							
Changes in mix of products / brands carried.	1	2	3	4	5	6	7
Changes in sales strategies.	1	2	3	4	5	6	7
Changes in sales promotion/advertising strategies.	1	2	3	4	5	6	7
Competitor dynamism.							
Changes in competitor's mix of products / brands carried.	1	2	3	4	5	6	7
Changes in competitor's sales strategies.	1	2	3	4	5	6	7
Changes in competitor's sales promotion/advertising strategies.	1	2	3	4	5	6	7
Customer dynamism.							
Changes in customer preferences in product features.	1	2	3	4	5	6	7
Changes in customer preferences in brands.	1	2	3	4	5	6	7
Changes in customer preferences in product quality/price.	1	2	3	4	5	6	7
Technological dynamism.							
Changes in the technology in our industry.	1	2	3	4	5	6	7
Changes in technological standards within the next five years from now.	1	2	3	4	5	6	7
Technological breakthroughs contribute to the development of new product ideas in our industry.	1	2	3	4	5	6	7

An environmental dynamism scale developed by Achrol and Stern (1988) was utilized to capture dynamism. The authors operationalized environmental dynamism as three derived sub constructs, (1) dynamism in marketing practices, (2) competitor dynamism, and (3) customer dynamism. Each item will be measured in a 7-point Likert-type scale ranging from “1” (no change) to “5” (very frequent changes). Because none of the sub constructs in the Achrol and Stern (1988) measure address technological dynamism, three items addressing this environmental aspect will be added from Jaworski and Kohli (1993). For items see Table 19.

Survey Development

I implemented Dillman’s (1978) recommendations to improve survey responses in the design of the survey instrument. Several criteria were considered in developing the final questionnaire such as controlling the length of the survey and maintaining its professional appearance. In addition, initial drafts of the survey were pre-tested in a two-stage process as discussed below.

Pre-Test of the Survey Instrument. First, the initial survey instrument was examined by 4 marketing academicians to assure its content, face validity, and organization. Based upon their feedback, some questions were rewarded for clarity, survey instructions were restructured, and the layout of the survey was modified such that questions were grouped into the following five sections: a) brand information, b) brand alliance information, c) firm’s previous alliance experience, d) external environment, and e) demographic information. Next, the questionnaire was pre-tested for clarity and organization on a convenience sample of MBA students (n = 18) from an urban campus of a major Midwestern university. This group of MBA students were all full-time employed with an average of 13.75 years of real life working experience. Two thirds of the respondents (n = 12) reported that they hold managerial or executive positions in their respective firms. Therefore, they were judged to be reasonably adequate for the purpose of pre-testing the measurement instrument.

In addition to completing the survey instrument, respondents were asked to rate a) the extent to which the questionnaire is well organized and easy to read, b) the length of the questionnaire, and c) the clarity of the instructions. Also, respondents were asked to write down any additional comments they have about the entire questionnaire or any specific question. Overall, respondents were unanimous in their opinion that the questionnaire was well organized and easy to read, that the instructions were clear, and that the length of the questionnaire was reasonable. Based on respondents' feedback, some spelling errors were corrected and specific unclear items were reworded and refined. Next, the study instrument was finalized. A copy of the survey is in Appendix B.

Data Analysis Plan

The data analysis in this study was comprised of a number of steps. First, the data was coded and keyed. Next, descriptive statistics were calculated and data quality assessed. Then, potential non-response bias was evaluated as discussed previously. Second, measures of the constructs were analyzed with inter-item correlations, coefficient alpha, and exploratory factor analysis. If the results of this analysis suggested any of the items were inappropriate, these were dropped. Third, a measurement model will be fit to verify unidimensionality (i.e., convergent and item discriminant validity), item cross-loadings, and acceptable measurement model fit. Next measures will be subjected to a series of confirmatory factor analyses to assess discriminant validity among constructs. In conducting these tests, I relied on the standard correlation less than unity test (Bagozzi, Yi, and Phillips 1991). Finally, the proposed relationships and moderating effects will be tested using hierarchical regression equations using three stage least squares in SAS. This method of analysis, does not allow the analyst to account and control for measurement error, however, it is more flexible in allowing cross-product terms for the moderation effects while still allowing for simultaneous estimation of the hierarchical regression equations.

Chapter Summary

This chapter described the research design and the methodology used in data collection. Next, measurement aspects of this study including operationalization of study constructs and stages for the development of the measurement instrument were presented. Finally, this chapter briefly presented the type of data analysis techniques and procedures that will be used to assess measurement quality and test the study proposed hypotheses. The next chapter will address the results from the data analysis procedures and the measurement model assessment before presenting hypothesis testing.

CHAPTER V

RESEARCH FINDINGS

This chapter is organized into three sections. The first section describes sample characteristics including the brands represented in this study, the respondents and the firms they belong to. The second section discusses the quality of the measurement aspects of this study including the reliability, the validity, and descriptive statistics of the measurement model. Finally, section three presents the results of hypotheses testing. This includes an assessment of the direct relationship between alliance experience and alliance competence, alliance competence and propensity to brand ally, and product quality and propensity to brand ally. In addition, the moderating effects of (1) valence of experience on the relationship between alliance experience and alliance competence, (2) attitude toward brand alliances on the relationship between alliance competence and propensity to brand ally and on the relationship between product quality and propensity to ally, and (3) the three brand motivational factors on the relationship between alliance competence and propensity to brand ally and on the relationship between product quality and propensity to ally were also examined via 3SLS analysis.

Sample Characteristics

Study respondents were asked to provide information about themselves, the brands they represent, and the firms they belong to. Though a total of 158 usable responses were retained, some of the respondents did not provide information about some of these questions. In what follows, I describe the characteristics of the firms, the brands, and the respondents respectively.

Firms Characteristics

Firms represented in this study came from a variety of manufacturing as well as service industries. Some of the manufacturing industries included in the sample were automotive, food, home furnishing/textiles, pharmaceuticals, apparel/accessories, and construction. Whereas the major service industries included in the study were travel/hotels, recreation, fast food/restaurants, and retail stores/chains. Table 20 shows the distribution of firms by industry.

TABLE 20
FIRMS' INDUSTRY PROFILE

Industry categories	Frequency	Percentage
Manufacturing	109	69
Automotive	19	11.7
Food	12	7.4
Home furnishing/Textiles	11	6.7
Pharmaceuticals	8	4.9
Apparel/Accessories	7	4.3
Sporting goods	7	4.3
Beer/Wine/Liquor	6	3.7
Construction/Building	6	3.7
Beverages	5	3.1
Office equipment/Supplies	4	2.5
Electronics	4	2.5
Cosmetics/Toiletries	3	1.8
Pet Food/Supplies	3	1.8
Jewelry/Watches	3	1.8
Toys/Games	3	1.8
Computers/Computer products	2	1.2
Other	6	3.8
Services	49	31
Travel/Hotels/Airlines	12	7.4
Recreation	10	6.7
Fast food/Restaurants	7	4.3
Retail stores/Chains	5	3.1
Insurance	4	2.5
Publishing/Printing	4	2.5
Financial services/Banks	3	1.8
Business/Consumer services	3	1.8
Transportation/Shipping	1	0.6

Note: Based on total usable responses (N=158)

Of those that provided information about their firm's approximate number of employees (N = 158), 1 (.6%) had less than 25 employees, 10 (6.3%) firms had 25-100 employees, 22 (13.9%) firms had 101-200 employees, 15 (9.5%) firms had 201-500 employees, 9 (5.7%) firms had 501-800 employees, 5 (3.2%) firms had 801-1,000 employees, 45 (28.5%) firms had 1,001-5,000 employees, and 51 (32.3%) had more than 5,000 employees. Based on the reported approximate number of employees most firms in the sample are large[3]. More specifically, approximately 69.6% of the firms (110) have more than 500 employees, while the remaining 30.4% of the firms (48) have fewer than 500 employees. In terms of firm size by number of employees, a comparison between the size distribution of firms included in the sample to the size distribution of firms in the overall population of U.S. Firms (obtained from the 2001 economic census -U.S. Census Bureau), clearly shows that large firms were overrepresented in the study sample (see Table 21). The average firm age is approximately 71 years, suggesting that most are well established firms.

TABLE 21
FIRM SIZE BY NUMBER OF EMPLOYEES ANALYSIS

	Less than 500 employees	500 employees and More
Overall poulation of U.S. firms*	4,936,570 (99.6%)	17,367 (0.4%)
Firms included in the sample	48 (30.4%)	110 (69.6%)

* Sourse: 2001 economic census -U.S. Census Bureau

Among the 158 usable responses 150 respondents reported their firms' approximate annual sales. Of these, 140 respondents (85.9%) reported their firm annual sales to be more than $20 million, three respondents (1.8%) reported their firm annual sales to range between $10 and $20 million, while the remaining 7 respondents (4.7%) reported that their firm had less than $10 million in annual sales.

In addition, information about the firm's branding strategy was requested. Approximately 43% (68) of firms in this sample employ a family branding strategy

[3] In the United States firms with less than 500 employees are classified as small and medium enterprises (SMEs), while Firms with 500 and more employees are classified as large firms (Anderson 1982).

(Keller 2003). That is they use the same brand or variations of the same brand across all their products. The remaining 57% (90) of firms use some form of individual branding strategy which involves using completely different brand name's for some or all of their products (Keller 2003). Table 22 summarizes the main characteristics of the firms whose managers completed and returned the survey instrument.

TABLE 22
FIRMS' PROFILE

Characteristics	Frequency	Percentage
Number of employees (N=158)		
Less than 25	1	0.6
25 - 100	10	6.3
101 - 200	22	13.9
201 - 500	15	9.3
501 - 800	9	5.7
801 - 1000	5	3.2
1001 - 5000	45	28.5
More than 5000	51	32.3
Annual sales volume (N=150)		
Less than $ 100,000	1	0.6
$ 250,000 - $ 499,999	2	1.2
$ 500,000 - $ 999,999	1	0.6
$ 1,000,000 - $ 4,999,999	2	1.2
$ 5,000,000 - $ 9,999,999	1	0.6
$ 10,000,000 - $ 20,000,000	3	1.8
More than $ 20,000,000	140	85.9
Firms' branding strategy (N=158)		
We use the same brand for all of our products	37	23.4
We use variations of the same brand across products	31	19.6
We use completely different brands for some of our products	69	44.7
We use a completely different brand for each one of our products	21	13.3
Age of firm (N=188)	Mean	Range
Number of years since established	70.7	2 - 96.3

Note: Total sample size is 158
N: Total number of responses

Brands Characteristics

The 158 usable responses represented 158 different brands. Each subject was asked to provide some demographic information about the brand under study. The average brand in this study has been on the market about 52 years. Most of the brands 82.9% (131) were consumer brands, while only 7% (11) were industrial. The remaining brands 10.1% (16) were both consumer and industrial brands. Of the brands represented in this study 92.4% (146) were national brands and 7.6% (9) were private-label brands. Among the 158 usable surveys 150 respondents reported the brand's approximate annual sales. Of these, 105 brands (64.4%) have annual sales more than \$100 million; 19 brands (11.7%) have annual sales between \$50 and \$100 million; while the remaining 26 brands (17.3%) have \$10 million or less in annual sales. Table 23 summarizes the main characteristics of the brands included in the study.

TABLE 23
BRANDS' PROFILE

Characteristics	Frequency	Percentage
This brand is: (N=158)		
Consumer	136	82.9
Industrial	11	7
Both	16	10.1
This brand is: (N=158)		
National	146	92.4
Private-label	9	7.6
Age of brand (N=158)	Mean	Range
Number of years this brand has been on the market	52.4	1.5 - 380

Note: Total sample size is 158
N: Total number of responses

Respondents Characteristics

Respondents were asked to provide information describing their job titles, gender, educational level, work experience, tenure, and length of involvement with the brand under study. Table 24 shows the frequencies of the job titles of the respondents. As evident from the table, almost 76.6% (121) of respondents were senior level executives with job titles including chief marketing officers, chief brand officers, executive or senior vice presidents of marketing, directors of marketing, and directors of brand management. The remaining respondents 23.4% (37) were either marketing or brand managers.

All together study respondents had 2,639 years of experience in their industries or about 16 years of experience per respondent. The average respondent's length of employment at their firm was approximately 11 years and s/he had worked in their current position about six years. Over two thirds (69.7%) of respondents were men and less than one third (30.3%) were women. Education was measured categorically. Approximately, 53.2% (84) of respondents had a college degree and 44.7% (69) of respondents had a graduate degree. The remaining respondents 2.1% (5) reported that they had some college education. Table 24 below reveals the overall characteristics of respondents. Included are respondents' job titles, gender, educational level, work experience, and tenure.

TABLE 24
RESPONDENTS' DEMOGRAPHIC PROFILE

Characteristics	Frequency	Percentage
Job Title: (N=158)		
Chief marketing officer or chief brand officer	11	10
Executive or senior vice president of marketing	22	13.9
Vice president of marketing	37	23.4
Director of marketing	30	19
Director of brand management	21	13.3
Marketing or brand manager	37	23.4
Gender: (N=155)		
Male	108	69.7
Female	47	30.3
Education level: (N=158)		
Some college	5	2.1
College degree	64	40.5
Graduate courses	20	12.7
Master's Degree	66	41.8
Doctoral degree	3	0.18
Total experience (years)	Mean	Range
in industry	16.19	1 to 64
in this firm	10.08	1 to 44
in current position	6.2	1 to 40
with this brand	9.22	1 to 43

Note: Total sample size is 158
N: Total number of responses

Respondent's Competence. It was very important to ensure that respondents were qualified to act as key informants in the study. As such, respondents were asked a series of nine questions designed to capture their level of competence in assessing issues related to the brand and the firm partnership experience and capabilities.

The respondents were asked to indicate how knowledgeable they were about the brand and motivations with respect to managing the brand in question. On a 1 to 7 Likert-type scale anchored by strongly disagree to strongly agree informants responded to six items that examine their level of competency in assessing brand's quality and motivations for the brand with respect to sales growth, profit goals, reacting to competition, future direction, and cost control. On average, 83% of the respondents (160) indicated that they were highly knowledgeable to assess the brand's quality and motivations (i.e., gave themselves a 5 or higher score). As such it was perceived that study participants felt that they possess adequate knowledge to assess the brands on issues relevant to the study. This is further supported by the level of involvement with the brand reported by subjects, on average, respondents had been involved with the brand over 9 years.

In addition, using the same response scale respondents were asked to indicate how knowledgeable they were about their firms experience, skills, and capabilities with respect to managing relationships with other firms. On average, almost three fourths (74.4%) of the respondents indicated that they were highly knowledgeable to assess their firm experience, skills, and capabilities with respect to managing relationships with other firms (i.e., gave themselves a 5 or higher score). In addition, almost 60% of respondents reported that they have high levels of personal experience in alliances. We can see from this analysis (see Table 25) that the respondents' self reported knowledge levels of issues related to the study were adequate.

In summary, respondents participating in this study were key marketing and brand executives who were directly responsible of the management of the brand under study and were at a top management levels. Most of the respondents had adequate years of work experience and possessed the expertise and knowledge to provide valid information about their firms and the brand under study.

TABLE 25
RESPONDENTS' REPORTED COMPETENCE LEVELS

Statement	Mean	Response frequency & (%) Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I have adequate knowledge to assess this firm's motivations with respect to sales growth for this brand.	5.78	0	2(1)	9(4.7)	9(4.7)	47(24.4)	64(33.2)	58(30.1)
I have adequate knowledge to assess this firm's motivations with respect to profit goals for this brand.	5.67	1(0.5)	3(1.6)	10(5.2)	12(6.2)	46(23.8)	62(32.1)	55(28.5)
I have adequate knowledge to assess this firm's motivations with respect to reacting to the competition.	5.64	0	4(2.1)	7(3.6)	18(9.3)	46(23.8)	62(32.1)	51(26.4)
I have adequate knowledge to assess this firm's goals with respect to the future direction of this brand.	5.77	0	3(1.6)	7(3.6)	14(7.3)	41(21.2)	68(35.2)	58(30.1)
I have adequate knowledge to assess this firm's motivations with respect to cost control goals for this brand.	5.01	1(0.5)	16(8.3)	16(8.3)	32(16.6)	42(21.8)	48(24.9)	35(18.1)
I have adequate knowledge to assess this brand's product quality.	6.04	0	1(0.5)	1(0.5)	11(5.7)	32(16.6)	77(39.9)	69(35.8)
I have adequate knowledge to assess this firm's experience with respect to managing relationships with other firms.	5.36	1(0.5)	3(1.6)	15(7.8)	25(13)	46(23.8)	63(32.6)	37(19.2)
I have adequate knowledge to assess this firm's skills with respect to managing relationships with other firms.	5.24	0	7(3.6)	13(6.7)	28(14.5)	50(25.9)	66(34.2)	27(14)
I have adequate knowledge to assess this firm's capabilities with respect to managing relationships with other firms.	5.27	0	4(2.1)	17(8.8)	27(14)	45(23.3)	70(36.3)	27(14)
I have significant personal experience in alliances	4.74	8(4.1)	8(4.1)	28(14.5)	31(16.1)	45(23.3)	45(23.3)	24(12.4)

Measurement Quality Assessment

In this section, measurement issues related to construct validity and reliability are addressed. The key constructs assessed are alliance experience (AEXP), valence of alliance experience (VEXP), alliance competence (ACOMP), brand quality (PQUAL), and the dependent variable propensity to brand ally (PBALLY). In addition, moderator constructs such as attitude toward brand alliances (ABALLY), market penetration (MP), competitive pressure (CP), efficiency (E), and control measures, such as environmental uncertainty (EUNCER) and environmental dynamism (EDYNA) were assessed.

All study measures are reflective except for three formative measures capturing brand motivation constructs. Reflective measures were evaluated for construct validity through exploratory factor analysis and for internal consistency reliability via item-to-total correlations and Cronbach's alpha. First, principle components estimation without rotation was done with SPSS to capture whether each factor had sufficient loadings. The criterion Eigen values greater than one was used to determine the number of factors extracted and a factor loading of 0.5 or higher for retaining items. Next, scales were tested for reliability (i.e., the extent to which a scale produces internally consistent measures for multi-item scales) via Cronbach's coefficient alpha and item-total correlations were examined (Nunnally and Bernstein 1994). If the results of this analysis suggested any of the items were inappropriate, these were dropped. In light of these, the items for each construct were selected. Next, measures were subjected to CFA in LISREL 8.72 (Jöreskog and Sörbom 1996) to assess dimensionality and ensure whether each measure exhibits convergent and discriminant validity. As for the formative measures, the scales indexes were constructed and validated via the procedures suggested by Diamantopoulos and Winklhofer (2001) as discussed later in this chapter.

<u>EFA and Reliability Analyses</u>

In what follows I present the results of the EFA and reliability analysis for each study measure.

Alliance Experience (AEXP). For this construct, a one-factor solution was obtained with Eigen value of 2.77 and 92.3 percentage of the variance in the data extracted. All items loaded at high levels. The Cronbach's alpha was .958. The EFA and reliability results for the measure of alliance experience are provided in Table 26.

TABLE 26
EXPLORATORY FACTOR ANALYSIS
& RELIABILITY ANALYSIS FOR ALLIANCE EXPERIENCE

Scale	Factor Loading	Item-total Correlation
Alliance Experience (AEXP)		
AExp 1	0.930	0.850
AExp 2	0.977	0.946
AExp 3	0.975	0.943
Eigen Value	2.77	
% of Variance	92.3	
Cronbach's alpha	0.958	

Valence of Alliance Experience (VEXP). As Table 27 shows a one factor solution was obtained for this construct with an eigen value of 4.68 and 93.6 of the variance extracted. Examining item to total correlations and Cronbach's alpha indicated that this scale achieves high levels of reliability.

TABLE 27
EXPLORATORY FACTOR ANALYSIS
& RELIABILITY ANALYSIS FOR VALENCE OF ALLIANCE EXPERIENCE

Scale	Factor Loading	Item-total Correlation
Valence of Alliance Experience (VEXP)		
VExp 1	0.958	0.934
VExp 2	0.976	0.962
VExp 3	0.968	0.949
VExp 4	0.966	0.947
VExp 5	0.970	0.953
Eigen Value	4.68	
% of Variance	93.61	
Cronbach's alpha	0.983	

Alliance Competence (ACOMP). As discussed in the previous chapter this construct was measured in two ways. First, by using a two-dimensional scale developed by Lambe, Spekman, and Hunt (2002); this scale includes six items capturing only two of the many possible dimensions of alliance competence: alliance managers' development capability (AMDCAP) and partner identification propensity (PIPROP) (three items for each of the dimensions). Second, a three items global measure of alliance competence (GACOMP) was included as a more comprehensive and parsimonious alternative. The psychometric properties of those two options were compared.

First, a principle component analysis without rotation was performed on the six items capturing the two dimensions of alliance competence suggested by Lambe et al. (2002). This analysis produced one factor which accounted for 77% of the variance in the data and had an eigen value of 4.6. The next factor had an eigen value of only .73; below the suggested eigen value of higher than one criterion (Hair et al. 1998). Next, a principle component analysis without rotation was performed on GACOMP three items measure. A one factor solution was obtained for this measure with an eigen value of 2.61 and 87% of the variance extracted. The Cronbach's alpha was .925. The EFA and reliability results for the previous analysis are summarized in Table 28.

A decision was made to use the GACOMP measure for further analyses and hypotheses testing for three reasons. First, the lack of discriminant validity between AMDCAP and PIPROP (i.e., one factor solution) indicates potential problems with these two measures, while, GACOMP measure displayed good psychometric properties. Second, GACOMP is strongly and significantly correlated with each of the two alliance competence dimensions (.81 and .78, respectively). As such, GACOMP is a more parsimonious alternative while at the same time capturing the essence of alliance competence construct attempted to be captured by the two dimensions. Third, the study focus is on the alliance competence construct as a whole not its sub-dimensions. That is, study hypotheses were generated based on overall alliance competence with no proposed differences between the two sub-dimensions of alliance competence.

TABLE 28
EXPLORATORY FACTOR ANALYSIS
& RELIABILITY ANALYSIS FOR ALLIANCE COMPETENCE

Scale	Factor Loadings	Item-total Correlation
Alliance Managers Development Capability (ADCAP)		
MDCap 1	0.871	0.804
MDCap 2	0.879	0.814
MDCap 3	0.906	0.854
Partner Identification Propensity (PIPROP)		
PIprop 1	0.871	0.816
PIprop 2	0.896	0.853
PIprop 3	0.843	0.78
Eigen Value	4.612	
% of Variance	77	
Global Alliance Competence (GAComp)		
GAComp 1	0.952	0.883
GAComp 2	0.962	0.907
GAComp 3	0.884	0.759
Eigen Value	2.61	
% of Variance	87.01	
Cronbach's alpha	0.925	

Brand Quality (BQUAL). The five items intended to measure this construct were entered into a principle component factor analysis. One item was removed due to a low factor loading and low item total correlation (see BQual 3 in Table 29). The factor loadings of the remaining four items all exceeded .846 and the item total correlations exceeded .739. EFA on the remaining four items resulted in a one factor with an eigen value of 3.22 and improved the explained variance in the data from 69.68% to 80.55%. In addition, dropping the fifth item improved the scale Cronbach's alpha from .875 to .90.

TABLE 29
EXPLORATORY FACTOR ANALYSIS
& RELIABILITY ANALYSIS FOR BRAND QUALITY

Scale	Factor Loading	Item-total Correlation
Brand Quality (BQUAL)- 5 items		
BQual 1	0.882	0.783
BQual 2	0.931	0.837
BQual 3	0.577	0.451
BQual 4	0.846	0.739
BQual 5	0.928	0.828
Eigen Value	3.48	
% of Variance	69.68	
Cronbach's alpha	0.875	
Brand Quality (BQUAL)- 4 items		
BQual 1	0.889	0.790
BQual 2	0.933	0.854
BQual 4	0.839	0.730
BQual 5	0.925	0.852
Eigen Value	3.222	
% of Variance	80.55	
Cronbach's alpha	0.9	

Propensity to Participate in Brand Alliances (PBALLY). As Table 30 shows a one factor solution was obtained for this construct with an eigen value of 2.8 and 93.29 of the variance extracted. Examining item to total correlations and Cronbach's alpha indicated that this scale achieves high levels of reliability (0.96).

TABLE 30
EXPLORATORY FACTOR ANALYSIS
& RELIABILITY ANALYSIS FOR PROPENSITY TO BRAND ALLY

Scale	Factor Loading	Item-total Correlation
Propensity to Participate in Brand Alliances (PBALLY)		
PBAlly 1	0.955	0.900
PBAlly 1	0.967	0.926
PBAlly 1	0.975	0.944
Eigen Value	2.8	
% of Variance	93.29	
Cronbach's alpha	0.963	

Attitude Toward Brand Alliances (ABALLY). For this construct, a one-factor solution was obtained with Eigen value of 2.82 and 94.5 percentage of the variance in the data extracted. All items loaded at high levels. The Cronbach's alpha was .968. The EFA and reliability results for this measure are provided in Table 31.

TABLE 31
EXPLORATORY FACTOR ANALYSIS
& RELIABILITY ANALYSIS FOR ATTITUDE TOWARD BRAND ALLIANCES

Scale	Factor Loading	Item-total Correlation
Attitude Toward Brand Alliances (ABALLY)		
ABA 1	0.962	0.916
ABA 1	0.982	0.959
ABA 1	0.965	0.921
Eigen Value	2.82	
% of Variance	94.05	
Cronbach's alpha	0.968	

Measurement quality for multi-item control variables was also assessed. All measures achieved good reliability levels. Cronbach's alphas for control variables ranged from .70 to .95. A one-factor solution with sufficient loadings was obtained for each construct. All items loaded at levels above 0.50 and the extracted variance ranged from 62% to 90.5%. The EFA and reliability results for the multi-item control variables are summarized in Appendix C.

CFA and Discriminant Analyses

Next, as recommended by Churchill (1979) and Gerbing and Anderson (1988), unidimensionality, convergent, and discriminant validity were assessed by means of a series of confirmatory factor analysis models using LISREL 8.72 (Jöreskog and Sörbom 1996). Convergent validity is defined as the agreement among measures of the same factor. Convergent validity is supported when a CFA model fits satisfactorily and all factor loadings are significant. Discriminant validity refers to the distinctiveness of the factors measured by different sets of indicators.

A test of the measurement model was performed by subjecting the measures to a sequence of confirmatory factor analyses. First, I started with a two factor CFA model with AEXP and VEXP, adding an additional factor one at a time until reaching the full measurement model. For each of these factor analyses, the factor loadings, cross loadings, modification indexes, and overall model fit were thoroughly examined. The CFA with AEXP and VEXP was conducted twice because the results of the first CFA with 3 indicators for AEXP and 5 indictors for VEXP show a better model fit if VEXP 2 was dropped. The modification index was 45.54 for element VEXP 2 and VEXP1 of Theta-Delta and goodness of fit indices were goodness of fit index (GFI) = .88, adjusted goodness of fit index (AGFI) = .77, normed fit index (NFI) = .97, non-normed fit index (NNFI) = .96, comparative fit index (CFI) = .98. Running a CFA after deleting VEXP 2 indicated a better model fit and good modification indices (i.e., all well below 10). Fit indices were (GFI) = .96, (AGFI) = .91, (NFI) = .99, (NNFI) = .99, and (CFI) = .99. In addition, running a Chi-square difference test between the two models indicates a significant change in chi-square as a result of dropping VEXP 2 ($\chi 2\ \Delta = 64.51$, $df = 6$, $p = 0.00$). As such, item VEXP 2 was removed from further analyses. No other items were dropped in the rest of the iterations.

The final six-factor model CFA with AEXP, VEXP, GACOMP, BQUAL, PBALLY, and ABALLY was acceptable. The CFA results demonstrate a significant Chi-square statistic of 244.29 ($df = 155$, $p = .000$) however, the model fit indices were quite good[4] (GFI) = .87, (AGFI) = .82, (NFI) = .96, (NNFI) = .98, (CFI) = .98, and (RMSEA) = .046. All factor loadings were high and loaded significantly as expected with negligible cross loadings (see Table 32). Next, composite reliability was calculated for each of the six factors. Composite reliability (CR) is analogous to Cronbach's alpha and used to assess reliability in SEM. The composite reliability for all six factors are high and exceeded standards recommended by Fornell and Larcker (1981), providing additional support for the reliability of the study scales (see Table 32).

TABLE 32
FULL MEASUREMENT MODEL RESULTS

Construct	Standardized Loading	t-value *	Construct Reliability (CR)	Average Variance Extracted (AVE)
Alliance Experience (AEXP)			0.95	0.96
AEXP 1	0.85	19.16		
AEXP 2	0.98	-----		
AEXP 3	0.98	40.28		
Valence of Alliance Experience (VEXP)			0.98	0.98
VEXP 1	0.93	-----		
VEXP 3	0.95	23.98		
VEXP 4	0.97	25.85		
VEXP 5	0.97	26.11		
Global Alliance Competence (GACOMP)			0.93	0.92
GACOMP 1	0.95	-----		
GACOMP 2	0.98	28.28		
GACOMP 3	0.78	14.21		
Attitude Toward Brand Alliances (ABALLY)			0.97	0.97
ABALLY 1	0.93	-----		
ABALLY 2	0.99	29.12		
ABALLY 3	0.94	23.75		
Brand Quality (BQUAL)			0.74	0.92
BQUAL 1	0.84	11.15		
BQUAL 2	0.94	12.47		
BQUAL 4	0.75	-----		
BQUAL 5	0.91	12.11		
Propensity to Brand Ally (PBALLY)			0.90	0.97
PBALLY 1	0.92	-----		
PBALLY 2	0.95	23.18		
PBALLY 3	0.98	24.8		

* all estimates significant with $p < .01$.
Model Fit: $\chi^2 = 244.29$; df = 155; p = 0.0; GFI = .87; NFI = .96; NNFI = .98; CFI = .98

[4] As noted by Bollen (1989, pp 266 – 269), the χ^2 test for CFAs has many limitations. As such I rely primarily on GFIs is assessing model adequacy.

In addition to reliability assessment, it is also important to demonstrate discriminant validity between study factors. Several methods have been suggested for examining discriminant validity. One means involves the calculation of the average Variance Extracted (AVE), which measures the ratio of variance to measurement error in the scale. Fornell and Larcker (1981) suggest that adequate measures should contain less than 50% error variance (i.e., AVE should be .5 or higher). The AVE estimates reported in Table 32 for each factor in the model exceeded the recommended .5 standard with a range from .98 to .92. Fornell and Larcker (1981) also suggested comparing the pair wise correlations between factors with the AVE for the constructs making up each pair. Evidence of discriminant validity occurs when the AVE estimates for each factor are greater than squared correlation between the factors. The AVE estimates for each factor in the model exceeded the squared correlations between factors, suggesting discriminant validity between the scales (See Table 33).

Next, as recommended by Anderson and Gerbing (1988) and Bagozzi, Yi, and Phillips (1991), correlation less than one tests were conducted for each pair of constructs. A series of two-factor model with the correlation set equal to one was compared to a two-factor model with the correlation is freely estimated. For each pair of constructs, the results of chi-square difference test suggest that the correlation between constructs is less than unity which provides additional support for discriminant validity (see Table 33). Finally, the discriminant validity for study scales were further assessed through an iterative process of comparing a series of two factor solution models to one factor solution model. Chi-square difference tests were conducted between the models, as a means to test for discrimination between the models. All of the comparisons revealed a significant chi-square difference test (see Table 33). Results indicated that for each pair of constructs the two factor model exhibit a better model fit than the one factor model. The results of all three tests provide strong evidence of discriminant validity with these study measures.

TABLE 33
DISCRIMINATE TESTS RESULTS

Constructs Pairs	AVE > r^2 test		r_{xy} < 1 test *		2F vs. 1F test *	
	AVE	Phi (r^2)	χ^2	*p* value	χ^2	*p* value
Alliance Experince (AEXP) and Valence of Alliance Experince (AVAL)	0.96 & 0.98	0.56	41.82	0.000	278.87	0.000
Alliance Experince (AEXP) and Global Alliance Competence (GACOMP)	0.96 & 0.95	0.66	48.67	0.000	208.52	0.000
Valence of Alliance Experince (AVAL) and Global Alliance Competence (GACOMP)	0.98 & 0.95	0.55	28.12	0.000	180.67	0.000

* df = 1

Convergent validity was also assessed for each scale in the model. Each item demonstrated a significant loading on its intended construct providing evidence of convergent validity. In addition, a composite reliability greater than .80 and AVE greater than .5 provides more evidence of convergent validity (Fornell and Larcker 1981). As such, discriminate and convergent validity has been supported for study scales. All together, the previous analyses provide evidence that study scales are valid and reliable.

Potential Measurement Limitation

One limitation of the measurement approach used in this study is its use of perceptual measures. The use of perceptual measures provides the potential for common methods variance. In order to minimize this potential, the study survey was arranged such that the dependent variable followed the measurement of the independent variables, moderators, and control variables. Salancik and Pfeffer (1977) argue that this approach helps to reduce the effect of common method variance. In addition, in order to empirically test for this potential, a factor analysis including all study items was conducted. Harman (1967) as well as Podsakoff and Organ (1986) recommended the use of a single factor test for the assessment of common method variance. If the solution results in a much smaller number of factors than theoretically suggested, it will suggest the existence of a common methods variance problem. Conducting an EFA with all twenty items intended to measure the six reflective latent constructs resulted in a five factor solution that accounted for 87.94 of the total variance in the data. Since five is not much smaller than 6, the results suggest that common method variance problem is not a serious problem with this data.

Index Construction and Validation for Formative Measures

As discussed previously based on literature in strategic alliances and brand alliances, three major motives for brand alliances were identified. They are market entry/penetration (MP), competitive pressure (CP), and efficiency (E) motives. The measures for these constructs are formative measures. When evaluating the adequacy of formative measures, measures of internal consistency and reliability are inappropriate (Bollen and Lennox 1991). In particular, the scale indexes for MP, CP, and E were constructed and evaluated via the procedures suggested by Diamantopoulos and Winklhofer (2001).

Content and indicator specification are critical for formative measures (Jarvis, MacKenzie, and Podsakoff 2003; Diamantopoulos and Winklhofer 2001), so each measure was constructed to include different aspects as identified in the strategic alliance and brand alliance literatures. Another important aspect to consider in forming formative measures is the multicollinearity between formative indicators. As noted by Diamantopoulos and Winklhofer (2001), high multicollinearity between indicators will influence the assessment of the indicator's validity. Examining the correlations among the fourteen indicators intended to capture MP, CP, and E indicated that multicollinearity did not seem to cause a problem, the highest correlation was .519 and the maximum variance inflation factor came to 2.558, which is far below the common cut-off threshold of 10. As such, all fourteen items were retained for initial inclusion in the indexes.

Next, to assess the quality of individual indicators the correlations between the fourteen indicators and a theoretically related variable (external to the three indexes) were examined. According to Diamantopoulos and Winklhofer (2001), only those indicators that are significantly correlated with the variable should be retained. In this study, "long-term profitability" was used as an initial screen for the indicators. Table 34 shows that eight items turned out to be significantly correlated with long-term profitability (MP1, MP4, CP1, CP2, CP3, CP4, CP6, and E2), as such, the rest of the items were excluded, and further index validation was based on the remaining eight items.

Next, I conducted a regression for each of the formative measures MP, CP, and E separately, in which the common indicator (i.e., long-term profitability) was a function of the corresponding significantly correlated indictors (see the table below for regression results). Finally, the summated scales for each were a combination of the significant predictors in the regression equation so that each item is weighted to reflect its relative contribution to the overall prediction of the common variable (i.e., standardized beta coefficient). The indexes for MP, CP, and E were constructed as Follows: MP = 0.23*MP1 + 0.14*MP4; CP = 0.17*CP1 + 0.33*CP3 + 0.14CP4; E = 0.215*E2.

TABLE 34
FORMATIVE MEASURES INDEXES CONSTRUCTION

Construct	Correlation Coefficient with "Long Term Profitability"	*p* value	Regression with "Long Term Profitability" as the DV: Standardized Coefficients	*t*	*p* value
Market Entry/Penetration (MP)					
Stimulating sales (MP1)	0.22	**0.01**	0.23	2.95	**0.00**
Gain presence in new markets (MP2)	0.12	0.13			
International market access (MP3)	0.11	0.17			
Access to important new markets (MP4)	0.13	**0.09**	0.14	1.81	**0.07**
Competitive pressure (CP)					
Gain competitive market power (CP1)	0.32	**0.00**	0.17	1.90	**0.06**
Reduce competition (CP2)	0.19	**0.02**	0.04	0.45	0.65
Improve competitive position (CP3)	0.44	**0.00**	0.33	3.96	**0.00**
Maintain market position (CP4)	0.25	**0.00**	0.14	1.88	**0.06**
To follow the lead of competitors (CP5)	0.04	0.65			
Attain market leadership (CP6)	0.26	**0.00**	0.02	0.27	0.79
Efficiency (E)					
Sharing of brand advertising expenditures (E1)	0.05	0.55			
Lower production cost (E2)	0.24	**0.00**	0.21	2.50	**0.01**
Minimize marketing cost (E3)	0.12	0.12			
To pool resources (E4)	0.11	0.17			

Descriptive Statistics

In light of previous analyses, the items for each construct were finalized. Missing item data were replaced with the mean value of a respondent’s response for that particular construct. Summated scales for reflective measures were calculated based on the average score for the items comprising each measure. The construction of the indexes for each of the three formative measures was based on the guidelines suggested by Diamantopoulos and Winklhofer (2001) as discussed in the previous section. These were then used to test the hypotheses. Table 35 provides the correlation matrix and summary statistics for study variables. Examining the correlation matrix for study variables indicate that most of the independent and dependent variables are significantly correlated ($p<.01$). One important exception is that brand quality (BQUAL) variable had low and non-significant correlations with other study variables.

TABLE 35
CORRELATIONS, MEANS, STANDARD DEVIATIONS AMONG STUDY VARIABLES

Construct	AEXP	VEXP	ACOMP	ABALLY	BQUAL	PBALLY	MP	CP	E
Alliance Experience (AEXP)	0.96 [c]								
Valence of Alliance Experience (VEXP)	0.75 [a]	0.98							
Alliance Competence (ACOMP)	0.81 [a]	0.74 [a]	0.93						
Attitude Toward Brand Alliances (ABALLY)	0.37 [a]	0.44 [a]	0.34 [a]	0.97					
Brand Quality (BQUAL)	0.02	0.16 [b]	0.13	0.11	0.90				
Propensity to Brand Ally (PBALLY)	0.47 [a]	0.52 [a]	0.42 [a]	0.56 [a]	0.08	0.96			
Market Entry/ Penetration (MP)	0.03	0.11	0.06	0.09	0.11	0.13	----		
Competitive Pressure (CP)	0.10	0.11	0.19 [b]	0.09	.22 [a]	.17 b	.29 [a]	----	
Efficiency (E)	0.01	0.01	0.08	0.02	.17 [b]	0.10	.24 [a]	.24 [a]	----
Mean	4.24	4.5	3.92	5.32	7.04	4.89	2.19	3.8	1.01
Standard Deviation	1.83	1.58	1.7	1.34	1.62	1.93	0.29	0.52	0.37

[a] correlation is significant at the 0.01 level
[b] correlation is significant at the 0.05 level
[c] numbers in the diagonal cells are Cronbach's alphas for reflective measures

Hypothesis Testing

A system of multiple regression equations were constructed according to the specifications of the proposed model shown in Figure 6. The two endogenous variables are ACOMP and PBALLY and the rest of the study variables, AEXP, VEXP, BQUAL, ABALLY, MP, CP, and E, are exogenous variables. These equations allow testing for the proposed direct relationships between study variables. In addition, to test the moderation effects, interaction terms were introduced into the proper equation (see Appendix D for the equations). The three stage least squares (3SLS) method using SAS was employed to simultaneously estimate these equations.

As will be discussed later, the basic assumptions underlying regression analysis were tested using residual analysis (Hair et al. 1998). In addition, care was taken to assess multicollinearity and to identify influential observations (i.e., outliers). The results of these analyses are discussed after presenting the results of hypothesis testing.

Results

Due to the large number of interactions, my analytical strategy is to examine the interaction effects one at a time. Including all interaction effects in one model would produce an unwieldy regression equation. As such, a series of models were fit using 3SLS. Each model included two equations. The first equation is the same for all models in which alliance competence is a function of alliance experience, valence of experience, and the interaction between alliance valence and alliance experience. The second equation includes propensity to brand ally as the dependent variable. Changes were made to this equation such that the proper independent variables and interaction terms were introduced at each model to test the corresponding hypothesis (see Appendix D for the equations).

A concern regarding the use of moderated regression analysis is the possible multi-collinearity between the interaction terms and other variables. As such, mean-centered interaction terms were created for each moderation hypothesis. First, the moderator was multiplied by the corresponding independent variable. Next, the resulting score was regressed as a function of both the moderator variable and the independent variable while saving the standardized residuals. These standardized residuals were then used as interaction terms to test the moderation hypotheses.

The first model is designed to test hypothesis 1, 2, 3, and 4. The first equation in which alliance competence is a function of alliance experience, valence of experience, and the interaction between alliance valence and alliance experience, was designed to test hypotheses 1 and 2. The second equation in which propensity to brand ally is a function of alliance competence and brand quality, was designed to test hypothesis 3 and 4. The model displayed a system weighted R-square of .6396. Hypothesis 1 predicts a direct relationship between alliance experience and alliance competence. This hypothesis was supported. The results indicate that alliance experience is significantly related to alliance competence ($\beta_{H1} = 0.49$, $p < .0001$). Hypothesis 2 proposed a moderation effect of valence of experience on the relationship between alliance experience and alliance competence. To test this hypothesis an interaction term between alliance experience and valence of experience was included in the first equation. This hypothesis was supported as the results indicate that the coefficient for the interaction term is positive and statistically significant ($\beta_{H2} = 0.10$, $p = .0184$).

Hypothesis 3 predicts a significant relationship between alliance competence and propensity to brand ally. This hypothesis was also supported. The results indicate that alliance competence is significantly and positively related to propensity to brand ally (β_{H3} = 0.60, p < .0001). Hypothesis 4 predicts a significant relationship between product quality and propensity to brand ally. This hypothesis was not supported (β_{H4} = 0.01, p = .9108). The results of the 3SLS are given in Table 36.

TABLE 36
3SLS RESULTS (MODEL 1 - HYPOTHESIS 1, 2, 3, & 4)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	3.16	0.0019
Alliance Competence (ACOMP)	0.60	6.68	< 0.0001
Brand Quality (BQUAL)	0.01	0.11	0.9108
Dependent Variable: Alliance Competence			
Intercept	0.00	0.29	0.00000
Alliance Experience (AEXP)	0.49	7.9	< 0.0001
Valence of Alliance Experience (VEXP)	0.40	6.43	< 0.0001
AEXP * VEXP	0.10	2.38	0.0184

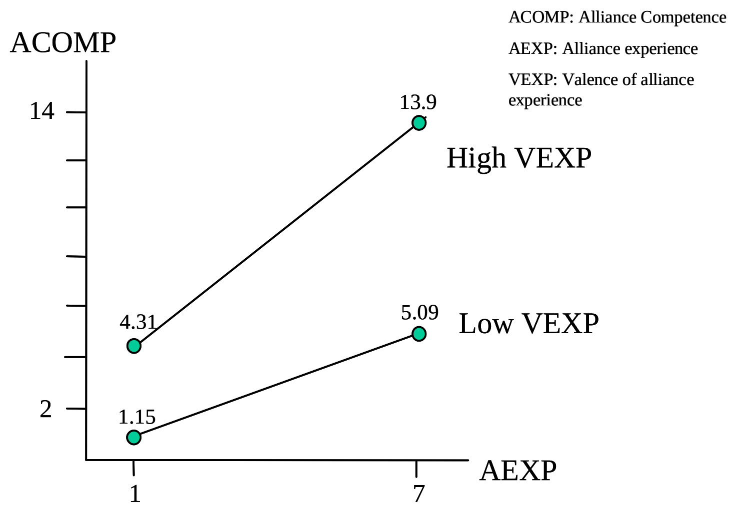
System Weighted MSE = 1.0695
Degrees of Freedom = 309
System Weighted R-Square = .6396

Simple Slope Analysis. To begin with, as suggested by (Cohen and Cohen 1983; Jacquard, Turrisi, and Wan 1990), the strength of the significant interaction effect (β_{H2} = 0.10, p = .0184) proposed in hypothesis 2 was assessed by running an R-square difference test. Specifically, adding the interaction term (AEXP*VEXP) to the regression equation including only AEXP and VEXP produced a significant increment in R-square (4.37, p = 0.038 at df = 1, 154), which indicate the strength of the interaction effect in the sample data.

Next, to further explore the nature of this interaction effect simple slope analyses were conducted. The standardized coefficient for the interaction term is 0.1. This implies that for every one unit that valence of alliance experience increases the slope of alliance competence on alliance experience increases by 0.1 units. For example, when valence of alliance experience is low (VEXP = 1), the slope of alliance competence on alliance experience is .657. However, when valence of alliance experience is high (VEXP = 7), the slope of alliance competence on alliance experience is 1.599. This result seems to suggest that the presence of positive alliance experience facilitate the influence of alliance experience on alliance competence.

To graphically depict the nature of this interaction, values for the dependent variable (alliance competence) were calculated at two points (1 and 7) for the independent variable (alliance experience) for each level of the moderator variable and were plotted in a graph. Figure 7 shows that, the relationship between alliance experience and alliance competence differs as a function of valence of alliance experience, with the relationship being stronger (i.e., steeper slope) at high levels of valence of alliance experience.

Figure 7
Alliance Experience × Valence of Alliance Experience



In the second model, an interaction term between alliance competence and attitude toward brand alliances was introduced to the second equation to test Hypothesis 5. The model displayed a system weighted R-square of .6406. Hypothesis 5 proposed a moderation effect of attitude toward brand alliances on the relationship between alliance competence and propensity to brand ally. This hypothesis was not supported as the results indicate that the coefficient for the interaction term between alliance competence and attitude toward brand alliances was not significant (β_{H5} = -0.07, p = .2845). Although a direct path between attitude toward brand alliances and propensity to brand ally had not been hypothesized initially, while testing for a moderation effect of attitude toward brand alliances on the relationship between alliance competence and propensity to brand ally, a significant positive influence of attitude toward brand alliances on propensity to brand ally was found (β = 0.43, p = < .0001). These findings are presented in Table 37.

TABLE 37
3SLS RESULTS (MODEL 2 - HYPOTHESIS 5)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	-0.33	0.7456
Alliance Competence (ACOMP)	0.40	4.89	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.43	6.42	< 0.0001
ACOMP * ABALLY	-0.07	-1.07	0.2845
Dependent Variable: Alliance Competence			
Intercept	0.00	0.44	0.6623
Alliance Experience (AEXP)	0.52	8.06	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.72	< 0.0001
AEXP * VEXP	0.10	2.23	0.0271

System Weighted MSE = 1.0358
Degrees of Freedom = 308
System Weighted R-Square = .6406

The third model allowed for testing hypothesis 6 which proposed a moderation effect of attitude toward brand alliances on the relationship between product quality and propensity to brand ally. To test this hypothesis an interaction term between brand quality and attitude toward brand alliances was included in the second equation. This hypothesis was not supported. The results indicate that the coefficient for the interaction term was not significant (β_{H6} = -0.01, p = .8221). See Table 38.

TABLE 38
3SLS RESULTS (MODEL 3 - HYPOTHESIS 6)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	-0.10	0.9195
Alliance Competence (ACOMP)	0.39	4.77	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.43	6.41	< 0.0001
Brand Quality (BQUAL)	-0.01	-0.20	0.8434
BQUAL * ABALLY	-0.01	-0.23	0.8221
Dependent Variable: Alliance Competence			
Intercept	0.00	0.43	0.6714
Alliance Experience (AEXP)	0.52	8.04	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.72	< 0.0001
AEXP * VEXP	0.10	2.15	0.0328

System Weighted MSE = 1.0347
Degrees of Freedom = 307
System Weighted R-Square = .6385

The next three models allowed for testing hypotheses 7, 9, and 11, respectively. These three hypotheses proposed a moderation effect of the three brand motivational factors (MP, E, and CP) on the relationship between brand quality and propensity to brand ally respectively. None of these hypotheses were supported. The results of the fourth, fifth, and sixth models indicate that the coefficient for the interaction term for each of these hypotheses was not significant (β_{H7} = 0.02, p = .7206; β_{H9} = 0.001, p = .9161; β_{H11} = -0.02, p = .7841). The results of models 4, 5, and 6 are summarized in Tables 39, 40, and 41, respectively.

TABLE 39
3SLS RESULTS (MODEL 4 - HYPOTHESIS 7)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	-0.95	0.3714
Alliance Competence (ACOMP)	0.39	4.60	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.41	5.93	< 0.0001
Brand Quality (BQUAL)	-0.01	-0.12	0.9044
Market Entry/ Penetration (MP)	0.07	1.07	0.2846
BQUAL * MP	0.02	0.36	0.7206
Dependent Variable: Alliance Competence			
Intercept	0.00	0.28	0.7815
Alliance Experience (AEXP)	0.51	7.81	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.70	< 0.0001
AEXP * VEXP	0.01	2.18	0.0308

System Weighted MSE = 1.0327
Degrees of Freedom = 300
System Weighted R-Square = .6355

TABLE 40
3SLS RESULTS (MODEL 5 - HYPOTHESIS 9)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	0.22	0.8239
Alliance Competence (ACOMP)	0.39	4.74	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.43	6.33	< 0.0001
Brand Quality (BQUAL)	0.00	-0.06	0.9497
Efficiency (E)	-0.06	-0.88	0.3812
BQUAL * E	0.00	0.11	0.9161
Dependent Variable: Alliance Competence			
Intercept	0.00	0.43	0.6679
Alliance Experience (AEXP)	0.52	7.97	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.67	< 0.0001
AEXP * VEXP	0.01	2.13	0.0344

System Weighted MSE = 1.0330
Degrees of Freedom = 304
System Weighted R-Square = .6335

TABLE 41
3SLS RESULTS (MODEL 6 - HYPOTHESIS 11)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	-1.20	0.2307
Alliance Competence (ACOMP)	0.40	4.71	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.42	6.27	< 0.0001
Brand Quality (BQUAL)	-0.30	-0.48	0.6316
Competitive Pressure (CP)	0.01	1.52	0.1302
BQUAL * CP	-0.02	-0.27	0.7841
Dependent Variable: Alliance Competence			
Intercept	0.00	0.44	0.6639
Alliance Experience (AEXP)	0.51	7.83	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.67	< 0.0001
AEXP * VEXP	0.01	2.16	0.0326

System Weighted MSE = 1.0330
Degrees of Freedom = 304
System Weighted R-Square = .6335

The seventh, eighth and ninth models allowed for testing hypotheses 8, 10, and 12 respectively. These hypotheses proposed a moderation effect of the three brand motivational factors (MP, E, and CP) on the relationship between alliance competence and propensity to brand ally. Both of hypothesis 8 and 12, which proposed a moderation effect of MP and CP on the relationship between alliance competence and propensity to brand ally respectively, were not supported (β_{H8} = 0.05, p = .46.3; β_{H12} = -0.09, p = .1511). See Tables 42 and 43 for results.

TABLE 42
3SLS RESULTS (MODEL 7 - HYPOTHESIS 8)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	-1.12	0.2649
Alliance Competence (ACOMP)	0.39	4.69	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.42	5.98	< 0.0001
Market Entry/ Penetration (MP)	0.07	1.06	0.2899
ACOMP * MP	0.05	0.74	0.4603
Dependent Variable: Alliance Competence			
Intercept	0.00	0.27	0.7848
Alliance Experience (AEXP)	0.51	7.79	< 0.0001
Valence of Alliance Experience (VEXP)	0.38	5.74	< 0.0001
AEXP * VEXP	0.10	2.18	0.0311

System Weighted MSE = 1.0344
Degrees of Freedom = 301
System Weighted R-Square = .6364

TABLE 43
3SLS RESULTS (MODEL 9 - HYPOTHESIS 12)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	-1.42	0.1581
Alliance Competence (ACOMP)	0.38	4.68	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.42	6.39	< 0.0001
Competitive Pressure (CP)	0.01	1.45	0.1498
ACOMP * CP	-0.09	-1.44	0.1511
Dependent Variable: Alliance Competence			
Intercept	0.00	0.46	0.6453
Alliance Experience (AEXP)	0.52	7.87	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.6	< 0.0001
AEXP * VEXP	0.10	2.2	0.0296

System Weighted MSE = 1.0274
Degrees of Freedom = 303
System Weighted R-Square = .6386

Finally, Hypothesis 10 proposed a moderation effect of E on the relationship between alliance competence and propensity to ally. To test this hypothesis an interaction term between alliance competence and efficiency motivation was included in the equation. This hypothesis was supported as the results of the eighth model indicate that the coefficient for the interaction term is statistically significant (β_{H10} = 0.13, p = .0364). See Table 44.

TABLE 44
3SLS RESULTS (MODEL 8 - HYPOTHESIS 10)

	Standardized Coefficients	*t*	*p*
Dependent Variable: Propensity to Ally			
Intercept	0.00	0.04	0.9696
Alliance Competence (ACOMP)	0.39	4.79	< 0.0001
Attitude Toward Brand Alliances (ABALLY)	0.46	6.68	< 0.0001
Efficiency (E)	-0.06	-0.91	0.3658
ACOMP * E	0.13	2.11	0.0364
Dependent Variable: Alliance Competence			
Intercept	0.00	0.44	0.6627
Alliance Experience (AEXP)	0.52	7.98	< 0.0001
Valence of Alliance Experience (VEXP)	0.37	5.67	< 0.0001
AEXP * VEXP	0.10	2.15	0.0327

System Weighted MSE = 1.0329
Degrees of Freedom = 305
System Weighted R-Square = .6371

Simple Slope Analysis. The strength of the significant interaction effect (β_{H10} = 2.11, p = .0364) proposed in hypothesis 10 was assessed by running an R-square difference test (Cohen and Cohen 1983; Jacquard et al. 1990). Adding E and the interaction term (GACOMP*E) to the regression equation including only GACOMP and ABALLY didn't produce a significant increment in R-square (1.95, p = 0.15 at df = 2, 152), which indicates that the interaction effect in the sample data is weak.

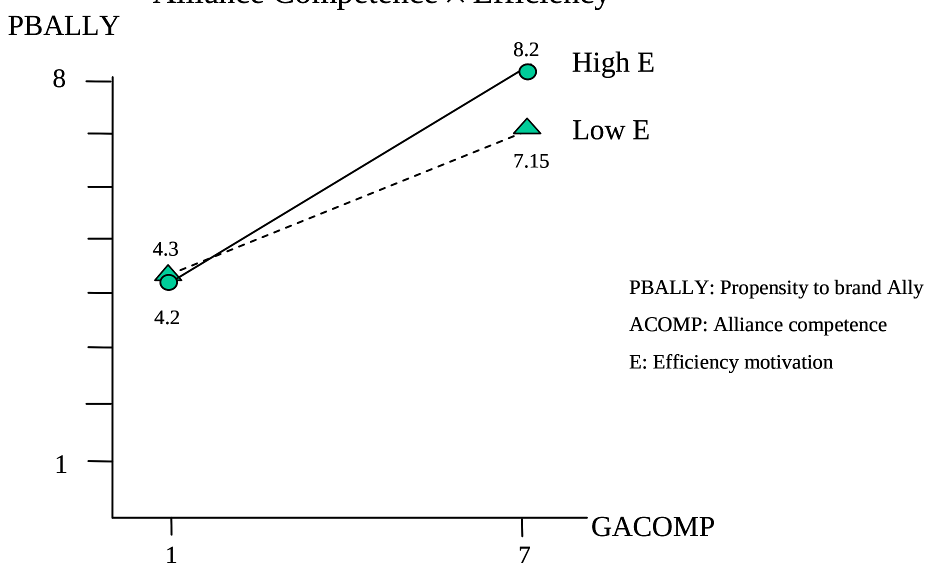
To further explore this interaction effect simple slope analyses were conducted. The standardized coefficient of 0.261 for the interaction term implies that for every one unit that E increases the slope of propensity to brand ally on alliance competence increases by 0.261 units. When efficiency motivation is low[5] (E = 0.645), the slope of propensity to brand ally on alliance competence is .476. When efficiency motivation is high (E = 1.38), the slope of propensity to brand ally on alliance competence is 0.668. Next, I graphically depict this interaction, values for the dependent variable (propensity to brand ally) were calculated at two points (0.645 and 1.38) for the independent variable (alliance competence) while holding attitude to brand ally constant at the mean value (m = 5.32) for each level of the moderator variable and were plotted in a graph.

Figure 8 shows the relationship between alliance experience and alliance competence as a function of valence of alliance experience. Simple slope analysis coupled with the statistically significant interaction effect results suggest that efficiency motivation facilitate the influence of alliance competence on the propensity to brand ally. However, I question the veracity of the statistically significant interaction due to the following three issues. First, the R-square difference test was not significant indicating the weakness of the interaction effect in the sample data. Second, the formative measure for the efficiency construct was constructed out of a single item which indicates some potential measurement related problems. Third, as I will discuss in detail in a later section, despite remedial attempts, three assumptions for using regression analysis were violated in this regression model which raises additional doubts regarding the validity of

[5] Since, the formative measure for efficiency construct was constructed as the beta weights of a single item measure (see formative measures construction pages 143 – 145) the low and high levels for efficiency were determined by adding or subtracting one standard deviation from the mean.

this interaction. As such, I made a decision to drop this interaction from further analysis and discussion.

Figure 8
Alliance Competence × Efficiency



In summary, hypothesis H1, H2, and H3 were supported, while hypothesis H4 – H12 were not supported. A summary for the hypothesis is given in Table 45.

TABLE 45
RESULTS OF HYPOTHESIS TESTING

	Hypothesis	Results
H1	Alliance experience is significantly related to alliance competence.	S
H2	The relationship between alliance experience and alliance competence is different at different levels of valence of experience.	S
H3	Alliance competence is significantly related with the propensity to brand.	S
H4	Product quality is significantly related to the propensity to brand ally.	NS
H5	The relationship of alliance competence on the propensity to brand ally is different at different levels of manager's attitude toward brand alliances.	NS
H6	The relationship of alliance competence on the propensity to brand ally is different at different levels of manager's attitude toward brand alliances.	NS
H7	The relationship between product quality and the propensity to brand ally will be different at different levels of market entry or penetration motivation.	NS
H8	The relationship between alliance competence and the propensity to brand ally will be different at different levels of market entry or penetration motivation.	NS
H9	The relationship between product quality and the propensity to brand ally is different at different levels of efficiency motivation.	NS
H10	The relationship between alliance competence and the propensity to brand ally is different at different levels of efficiency motivation.	Questionable
H11	The relationship between product quality and the propensity to brand ally is different at different levels of competitive motivation.	NS
H12	The relationship between alliance competence and the propensity to brand ally is different at different levels of competitive motivation.	NS

Note: S = Supported NS = Not Supported

Based on the previous results the proposed model shown in Figure 6 was revised as shown in Figure 9 below. In this model, a direct effect of ABALLY on PBALLY was introduced. However, since none of the hypothesis related to BQUAL, MP, CP, E, and their interactions were significant, these variables were removed from the model.

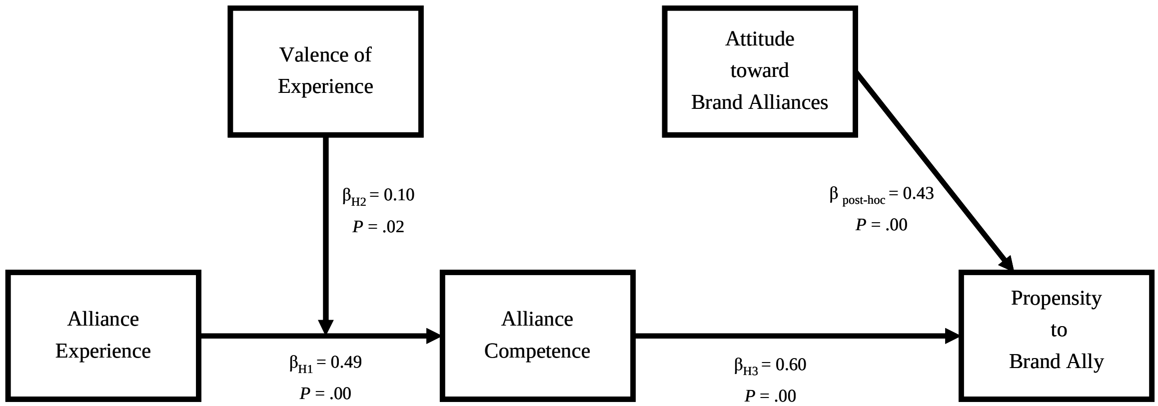


Figure 9
The Revised Model

Analyses of Control Variables

Several steps were taken to assess the impact of control variables on the results of this study. To begin with correlations between study variables and all of the control variables were examined to assess the need to enter these variables in the regression models (see Table 46 for the correlation matrix). Next, control variables that were significantly related to an endogenous variable were entered into the appropriate regression equation. Several models were conducted with the control variables as covariates one at a time and in different combinations. Although a few of the control variables were significantly related to the two dependent variables in the study (number of firm employees, firm sales, customer dynamism with propensity to brand ally and technological dynamism and brand sales with alliance competence), none produced a significant increase in R-square. In addition, there were no changes in the results of hypotheses testing after accounting for these control variables. The rest of the control variables do not show significant effects on alliance competence or propensity to brand ally. Thus, no control variables were added to the final model.

TABLE 46
CORRELATIONS BETWEEN STUDY VARIABLES & CONTROL VARIABLES

Control variable	AEXP	VEXP	ACOMP	BQUAL	ABALLY	PBALLY	MP	CP	E
Environmental uncertainty	-0.04	0.03	-0.01	0.11	0.04	0.01	0.15 [c]	-0.02	0.01
Dynamism in marketing practices	0.22 [b]	0.16 [b]	0.22 [b]	0.01	0.07	0.11	-0.01	-0.01	-0.05
Dynamism in competitive practices	0.13	0.05	0.11	0.06	-0.03	0.06	0.08	-0.05	0.02
Customer Dynamism	0.05	0.20 [b]	0.13	0.04	0.15 [b]	0.23 [a]	0.01	-0.03	0.01
Technological Dynamism	-0.02	-0.03	0.08	0.00	-0.02	-0.06	0.11	0.09	0.11
Firm Age	0.09	0.00	0.09	0.01	-0.06	0.06	-0.03	-0.01	0.00
Firm level	-0.07	0.02	-0.05	0.19 [b]	-0.06	-0.09	0.00	0.07	0.06
Years firm in industry	0.08	0.06	0.14	-0.04	0.04	-0.01	0.11	0.04	0.14
Firm size by number of employees	0.04	-0.01	0.10	0.04	0.17 [b]	0.18 [b]	-0.06	0.06	-0.04
Firm size by annual sales	0.06	0.00	0.06	0.02	-0.02	-0.14	0.15 [c]	0.11	0.08
Branding Strategy	0.14	0.05	0.16 [b]	0.19 [b]	0.09	0.04	-0.03	-0.06	-0.09
Brand age	-0.06	-0.05	0.02	0.00	0.05	0.10	0.06	-0.01	0.08
Brand annual sales	-0.03	-0.07	0.04	0.11	0.16 [c]	0.03	0.02	0.20 [b]	0.09
Years in current position	0.02	0.00	0.04	0.02	0.07	0.03	-0.02	0.04	-0.08
Years in industry	-0.03	-0.09	-0.04	-0.02	-0.01	-0.04	-0.09	0.05	0.04
Length of employment with the firm	0.09	0.01	0.08	0.00	-0.01	0.01	-0.02	0.10	-0.02
Length of involvement with the brand	0.02	-0.01	0.05	0.08	0.01	0.05	0.03	0.14 [c]	0.09
Education level	0.03	0.00	0.00	-0.04	-0.09	-0.01	-0.05	-0.08	-0.11
Competence in assessing the brand	0.03	-0.02	0.05	0.03	0.07	0.04	0.14 [c]	0.14 [c]	0.12 [b]
Competence in assessing firm alliance experience	0.24 [a]	0.17 [b]	0.23 [a]	0.25 [a]	0.06	0.18 [b]	0.08	0.18 [b]	0.18 [b]

[a] correlation is significant at the 0.01 level
[b] correlation is significant at the 0.05 level
[c] correlation is significant at the 0.1 level

Test of Regression Model Assumptions

When using multiple regression analysis, Hair et al. (1998) recommended assessing possible departures from the following major assumptions: 1) the linearity of the variables, 2) the constant variance of the error terms, 3) the independence of the error terms, and 4) the normality of the error term distribution. Therefore, residual analyses were conducted for each regression equation in the revised model as suggested by Neter, Kutner, Nachtsheim, and Wasserman (1996) to assess any departures from these assumptions.

For the first regression equation, in which ACOMP was a function of AEXP, VEXP, and AEXP*VEXP none of the assumptions were found to be violated. First, the normal probability plots of residuals showed close to normal distributions. In addition, non-significant normality tests of residuals (Kolmogorov-Smirnov) provide additional evidence on the normality of error terms distribution. Second, examining the residual plots and partial regression plots showed that there are no departures from linearity assumption. Third, examination of the sequence plots of residuals showed no problems in meeting independence of error terms assumption. In addition, Durbin-Watson statistic falls within the recommended range of 1.75-2.25. Fourth, the residual and normality plots were inspected to ensure homoscedasticity among error terms (as recommended by Hair et al. 1998). These plots revealed no significant departure from assumptions of constant variance. This is also supported by the non-significant results of Levene's test of equality of error variance. Finally, collinearity statistics were examined. No variance inflation factor (VIF) values exceeded 2.25 - well within the guideline of 10 recommended by Hair et al. (1995).

Next, to further assess the soundness of the E*GACOMP interaction, I examined the residuals from that interaction model. First, PBALLY was a function of ABALLY, ACOMP, E and E*ACOMP while in the second, E and E*GACOMP were removed from the equation. Residual analyses were conducted for both variations of the second equation. For the first variation in which E and its interaction term with ACOMP were included, based on the sequence plot of residuals and Durbin-Watson statistic, there seems to be no problems in meeting independence of error terms assumption. However, the remaining three assumptions were found to be violated for this regression model. The normal probability plots showed departures from the normal distribution. In addition, a significant normality test of residuals (Kolmogorov-Smirnov) provided another indication of the non-normality of error terms for this regression model. Next, the residual and normality plots were inspected to assess homoscedasticity among error terms (as recommended by Hair et al. 1998). The plots exhibit a diamond shape which according to Hair et al. (1998) is an indication of homoscedasticity among error terms. In addition, significant results of Levene's test of equality of error variance indicate problems with meeting constant error variance assumption. Examining the residual plots and partial regression plots showed that there are departures from linearity assumption.

Next, several data transformations were considered to correct these violations. As noted by Hair et al. (1998), nonnormality and nonconstant error variance frequently go hand in hand and usually remedies for nonconstant error variance also remedies non-normality. The authors suggest transforming the dependent variable in the case that both of these assumptions were violated. As such, a number of compression transformations were employed on the dependent variable –PBALLY (i.e., natural and tenth logarithm, square root). Next, regression models were reestimated with each of the transformed dependent variables and residuals were analyzed to assess whether the desired remedies were achieved. None of the transformations were successful in dealing with the assumptions violations. In addition, using these transformations did not change any of the study results. A point worth noting is that there are no violations in any of the assumptions when efficiency and its interaction with alliance competence are excluded from the regression equation.

Chapter Summary

Sample characteristics including the brands represented in this study, the respondents and the firms they belong to were presented in this chapter. Next, the quality of the measurement aspects of this study including the reliability, the validity, and descriptive statistics of the measurement model were explained. Finally, the results of hypotheses testing via 3SLS were presented. A discussion of the results, implications for researchers and practitioners, study limitations, and suggestions for future research are provided in the next chapter.

CHAPTER VI

DISCUSSION

This chapter is organized into four sections. First, an overview of the dissertation is provided. Second, research findings are discussed. Next, implications for researchers and managers are presented. Finally, study limitations are discussed and future research directions are outlined.

Overview of the Dissertation

The purpose of this dissertation was to investigate brand alliance from the firm perspective. The research focus and specific research objectives were guided by a review of the relevant literature that revealed: (1) the lack of research investigating brand alliances from the firm perspective, (2) the need to investigate brand alliance formation antecedents as a preliminary step toward a better understanding of this phenomenon, and (3) the need to develop and test a model of the antecedents of firms propensity to brand ally.

This dissertation attempted to close these gaps in prior research. First, a conceptual framework of brand alliance formation was developed. This framework postulated that brand alliance formation is influenced by individual-level, firm-level, brand-level, and partner-related antecedents as well as external environment antecedents (see Figure 1-A). Second, a subset of this framework was developed and tested on a national sample of marketing executives and brand managers (see Figure 6). The tested framework focused on firm-level alliance capabilities (i.e., alliance competence), brand-level attributes (i.e., product quality), brand motivational factors (e.g., market entry/penetration), and managerial attitudes (i.e., attitude toward brand alliances) as antecedents of firm's propensity to brand ally. More important, the moderating role of valence of alliance experience has not been explored in the marketing or the strategic alliance literature. This research studied how valence of alliance experience influenced the relationship between alliance experience and alliance competence.

The proposed model in Figure 6 was estimated and modified to find out more precise relationships between factors and a more parsimonious model for this study (see revised model Figure 9). For example, in the proposed model, no direct relationship was hypothesized between attitude toward brand alliances and propensity to brand ally. In the revised model this relationship was introduced. Next, the findings are discussed based on the revised model.

Discussion of Research Findings

The results show that the explanatory power of the revised model is very good with the over all system R^2 equal to 63%. The results of the hypothesis testing produced some interesting findings.

The study results indicate a significant and positive direct relationship between alliance experience and alliance competence. This finding support previous literature suggesting that previous alliance experience is an important antecedent of alliance competence. For example, this result support Gulati (1999) findings that firms' build alliance formation competence with alliance experience and provides empirical support for Day (1995) propositions that previous alliance experience adds to the quality of a firm's alliance formation skills. In addition, a key contribution of this study was the introduction of valence of alliance experience, which was posited to moderate the relationship between alliance experience and alliance competence. Valence of alliance experience was shown to exhibit a moderating influence on the relationship between alliance experience and alliance competence. These results further contribute to understanding the relationship between alliance experience and alliance competence. While previous research has shown a positive relationship between alliance experience and alliance competence, this study shows that valance of alliance experience can significantly alter the strength of this relationship. The more positive alliance experience is the stronger the relationship between alliance experience and alliance competence.

Researchers in marketing and strategic alliance literature have recognized and empirically investigated the role that decision makers play in the firm's choices regarding cooperative behaviors. For example, Varadarajan and Cunningham (1995) proposed that top management attitudes towards strategic alliances are important antecedents of firms' propensity to enter into strategic alliances. Tyler and Steensma (1998) showed that top executives' personal work experiences, their perceptions of their firms' attitudes toward technology and risk, and their perceptions about their firms' past success with collaboration influenced their cognitive assessment of potential technological alliances. The results of this study help to empirically support and provide additional evidence for such proposed relationship and extend recent findings to the context of brand alliances.

The study results showed that attitude toward brand alliances has a strong and positive direct influence on propensity to brand ally.

The results also indicate that alliance competence positively influenced propensity to brand ally. This result support previous findings in the strategic alliance literature that alliance competence is an important antecedent for strategic alliances formation (e.g., Gulati 1995, 1999; Simonin 1997; Sivadas and Dwyer 2000; Lambe, Spekman, and Hunt 2002). For example, Gulati (1995) argues that the possession of alliance formation competence can be a significant catalyst for firms considering new alliances. The author provided empirical evidence that alliance competence enables firms to form new alliances with greater ease and frequency (Gulati 1999). In addition, the findings of this study extend this contention to the brand alliance arena. Brand alliances are loaded with many complexities and uncertainties related to the assessment of the benefits and costs of engaging in such alliances, the identification and assessment of potential partners, and the negotiation of the terms and structure of the relationship. Under these circumstances, alliance competence provides the firm with the ability to better cope with those complexities and uncertainties.

However, the empirical findings failed to support part of the proposed model. More specifically, the proposed influence of brand quality on propensity to brand ally was not significant. Also, the interaction effects of the three brand motivational variables on the relationship between brand quality and propensity to brand ally were not significant. Similarly, the interaction effects of the three brand motivational variables on the relationship between alliance competence and propensity to brand ally were also not significant. The failure to detect these effects could be attributed to one or more of the following reasons: (1) violations of statistical assumptions for the regression model, (2) BQUAL may be curvilinearly related to PBALLY, (3) measurement related issues, (4) sample related issues, and (5) a weakness in the employed theoretical background (i.e., there is no effects). Each is now addressed.

One reason for the non significant results could be attributed to violations of statistical assumptions for the regression model. As shown in a previous section, despite the rigorous steps taken to remedy violations of these assumptions, I was not successful in dealing with these violations. According to Hair et al. (1998) violations of such assumptions can cause difficulty in detecting interaction effects even if they exist in the population.

However, it is also possible that BQUAL has a curvilinear relationship with PBALLY. Such form of relationship may cause difficulty in detecting the true correlation between these two variables which may be the reason behind the non significant results. However, curve estimation analysis between BQUAL and PBALLY indicates that their relationship is not curvilinear. Next, I created high and low brand quality groups based on a median split of BQUAL measure. I fitted a one way ANOVA model with the two brand quality groups as the fixed factor and the PBALLY as the dependent variable. The ANOVA showed no significant difference in PBALLY ($F = .28$, $df = 158$, $p = .598$) between low (mean = 4.8) and high (mean = 4.97) brand quality groups. In addition, there was no difference in the correlation between BQUAL and PBALLY between these two groups. As such this reason appears to be unlikely to explain the observed non significant results.

The lack of statistical significance for the product quality and brand motivational variables could also be a reflection of measurement problems. For example, an examination of the brand quality variable indicates that it may have some measurement issues. First, looking at the histogram for brand quality suggests nonnormality (see Figure 10). Second, despite that several a priori attempts were made to improve the ability of the measure to capture differences in quality among brands[6] and that the responses ranged from 2 to 9 on a nine point scale, the mean of brand quality was rather high at (mean = 7.04).

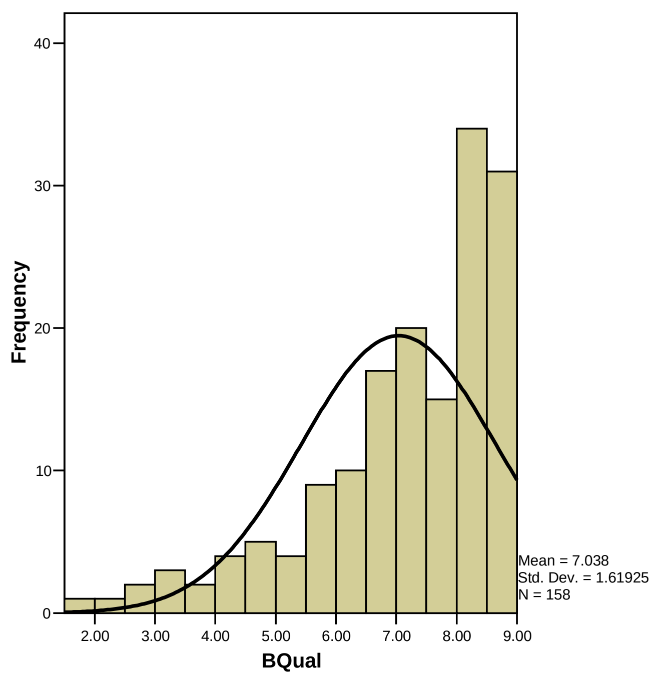


FIGURE 10
The Histogram for Brand Quality

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[6] In anticipation of potential difficulty in capturing enough variance on the brand quality measure several actions were taken to improve the measurement of this variable: (1) the response scale for the items measuring brand quality was deliberately unbalanced on a nine point scale anchored by disagree to perfectly agree with the neutral point of the scale at 3, (2) the items were phrased such that they assess the brand quality relative to competitors rather than in absolute terms.

One reason for such high responses on the brand quality variable could be attributed to the nature of the question under investigation, that is, respondents might have scored their brand high on quality regardless of the actual brand quality. However, there might have been no measurement related effects, and the high responses reflect true quality levels of brands in the sample. In order to investigate this further, I examined the nature of the brands represented in the study sample. Examining brand size based on annual sales indicates that most of the brands included in the sample are large. About 86% of the sample reported brand estimated annual sales of over $10 million and almost 64% of the sample reported annual sales of $100 million and more. In addition examining the number of years the brand has been in the market by the estimated sales levels indicates that on average brands with more than $100 million in annual sales have been about 53.63 years in the market, while brands with more than one million in annual sales have been in the market for 13 years. Thus, a large percentage of the brands in the sample represent well established and high performing brands, suggesting the possibility that the high scores on the brand quality variable might be attributed to the specific nature of the brands included in the sample and not a measurement related artifact. In addition, further analyses were conducted on a sub sample (n = 57) excluding brands with $100 or more in annual sales. No significant differences were found in the level of brand quality, its variance, and its correlation with other study variables. Available data does not allow me to rule out either of these two possible explanations for the high scores on brand quality measure, and how that might have contributed to the non significant results.

Finally, the lack of statistical significance for the product quality and brand motivational variables could have been also a reflection of a weakness in the theoretical background used in deriving our propositions. I relied on signaling theory as a base to explain the importance and function of the brand-related variables in my conceptual model. As discussed in Chapter II product quality was introduced to our model because it plays a fundamental role in the theory of signaling with brand names. I believe that the study failure to empirically support these contentions was a result of research choices that were made rather than a weak theory.

For example, the dependent variable in our study was propensity to brand ally. However, signaling theory assert that brand quality is related to actual brand alliance behavior (Rao and Ruekert 1994; Rao et al. 1999). As such, in our study we were unable to directly capture the signaling theory contentions. Future research should address this issue by examining actual brand alliance behavior. In addition, it will be interesting to explore the relationship between propensity to ally and actual brand alliance behavior and the role that brand quality plays in this relationship.

In addition, although in the framework of brand alliance formation (see Figure 5) I propose a number of variables within each group of antecedents that might influence a firm's brand alliance formation (i.e., individual-level, firm-level, partner-related, and external environment related), as a first step, I made a deliberate decision to focus my empirical investigation on a subset of these variables. Despite the fact that we measured eighteen control variables and tested their effect on the proposed model, the study might have excluded some other relevant variables from the tested model. For example, based on signaling theory we focused on the influence of one variable on firms' propensity to ally (i.e., brand quality). However, signaling theory suggests a number of other variables that might also affect signaling behavior, which are left for future research to address.

One factor that could have an effect on brand alliance behavior is related to product attributes. That is, a brand alliance might be designed to signal a specific product attribute rather than overall product quality. This study does not address the role of brand alliance in signaling specific product attribute rather than overall product quality. The ability, or the lack of, to signal specific product attribute might play a role in propensity to brand ally.

In summary, this dissertation finds no support for some of the proposed theoretical arguments related to brand related variables and their influence on firms' propensity to ally. When conducting further analysis, it is clear that we have some operationalization, measurement, as well as some sample related issues. However, since the results of this analysis are inconclusive in nature, it is not clear which of, and to what extent, these issues caused the insignificant results. These limitations open up several opportunities for future research that build on this study and provide a more rigorous test of our signaling theory based propositions. In the next sections, I will turn to highlight the key implications of the findings of this study, discuss the limitations, and outline future research directions.

Research Implications

In this dissertation I integrated relevant theories and existing literatures in conceptualizing a framework for the antecedents of brand alliance formation. I also make a major effort to empirically test parts of this framework with rigorous research methods. This dissertation has implications for both academic research and managerial practice as addressed below.

Theoretical Implications

The insight obtained in this research generates several implications for theoretical research that should be further investigated. First, the present study extends current research in brand alliances. Brand alliance research has emerged as an important topic to both academic researchers and practitioners. However, most of the research in this area has been from a consumer perspective. This study extends existing brand alliance research by being the first to examine brand alliances from the firm perspective. This research develops a conceptual framework for the antecedents of brand alliance formation. The conceptual model captures the internal and external factors that influence brand alliance formation. In addition, this research goes beyond simple internal brand alliance formation antecedents (i.e., individual-level and firm-level) explanation for brand alliance formation by paying explicit attention to the role that brand-level antecedents (i.e., brand product quality) play in firm's propensity to brand ally. Furthermore, the developed brand alliance formation framework recognizes the influence that partner-related and external environmental antecedents have on firm's brand alliance formation.

Second, by applying different perspectives from related literatures to the study of brand alliances (i.e., strategic alliance formation in the management and marketing disciplines), this dissertation contributed to these literatures by providing a test of the generalizability of these perspectives within a different context. In addition, this study adds to the strategic alliance literature by introducing and empirically investigating the moderating effect of the valence of alliance experience on the relationship between alliance experience and alliance competence. To the author's knowledge, this dissertation represents the first work to explore the relationship of valence of alliance experience to alliance experience and alliance competence. The results of this study suggest that researchers may have overlooked an important factor. Results suggest that researchers need to consider the influence of the valence of alliance experience on the relationship between alliance experience and alliance competence.

Third, another important theoretical implication relates to the empirical examination of the conceptualized relationship between brand quality and propensity to brand ally. The development of a conceptual model that is based on the signaling theory adds to the theoretical foundation of signaling theory by extending its application to the investigation of the signal sender. Thus providing a research avenue to test the consumer side generated propositions within a different context and from a different perspective.

Managerial Implications

From a managerial perspective, because of the increasing popularity of brand alliances activity, it is essential for management to have more knowledge about the antecedents of brand alliances. This study, in its attempt to capture several antecedents' forces that influence firms' propensity to form brand alliances, offers managers opportunities to extend their practical understanding of the antecedents for brand alliances formation. The framework in this study should provide managers with an enhanced understanding of their firms and brands for a better and more effective brand alliance formation. General managerial implications largely come from the findings related to the influence of both alliance experience and the valence of experience on alliance competence and how alliance competence and managers attitude toward brand alliances influence the firm propensity to brand ally.

To begin with, the study results indicate the importance of developing alliance competence and provide managers with insights into some important factors that lead to the development of such competence. The findings of this study related to the influence of alliance experience and the valence of alliance experience on alliance competence will arm managers with the knowledge of the necessary antecedents required to enhance a firm alliance competence. The study findings indicate that the more alliances firms participate in the more they are able to develop their alliance competence. Another important finding of this study that has significant practical implications is that the valence of the firm's prior experience in alliances strengthen the relationship between alliance experience and alliance competence. This means that firms should pay attention to both the amount of experience and the valence of experience in building alliance competence. More positive alliance experiences will accelerate and facilitates the development of alliance competence.

The manager's role therefore is to make sure that the firm participates in more of the positive alliance relationships which will enhance the firm's ability to develop the required skills and competencies to form and manage future alliances. Participating in more positive alliance relationships allow firms to develop the skills necessary to function in inter-firm relations. Such positive experiences allow managers to learn about how to manage cooperation and communication with partner managers regarding sources of competitive advantage. Some important skills may include the identification of suitable partners; identify complimentary and compatible resource profiles, and the capability to create communication systems that facilitate cooperation and coordination among the partners.

While there are a number of factors to take into consideration when forming brand alliances, this study offers managers insights that can help them make better informed brand alliance decisions, thereby increasing the chances of alliance formation success. To begin with, the finding that alliance competence positively influence firms' propensity to brand ally holds important managerial implications and should provide managers with insight into an important antecedent of firms brand alliance formation. When looking into forming brand alliances, managers should bring the firm's alliance competence into the brand alliance decision. In addition, the study results showed that general alliance experience is useful in brand alliance decisions. In summary, this research finding brings to managers' attention the important role that a firm's alliance formation competence plays in its assessment and formation of potential future brand alliance opportunities. A firm with alliance competence is in a position to better understand the dynamics and complexities of brand alliances formation.

Along the same lines, the finding that managers attitude toward brand alliances strongly influence firms propensity to brand ally holds significant practical implications. This implies that managers' attitudes toward brand alliances will have an important influence on the firm's propensity to brand ally. Managers with positive attitudes toward brand alliances are more likely to consider brand alliance as a viable branding strategy. It might be important for firms to encourage and build positive attitude toward brand alliances if they wish to create an environment in which brand alliances are sought.

Research Limitations

Some of the possible limitations of this study are noted in this section. One limitation of this research is that the generalizability of the results is limited by the fact that the majority of the firms in the sample are large by the number of employees and by the annual brand sales. Even though the non-response bias analyses provide evidence of the representatives of the survey sample, given that less than one quarter of the sample is small or medium size firms (SMEs), caution must be taken in generalizing the results to medium size and small size firms.

Another limitation of this study is related to the use of a single respondent for each participating firm. Time and resource constraints dictated the use of a single key informant approach. This may present a problem because an individual person insight into brand management and strategic alliance activities may be limited. However, Campbell (1955) notes that if a key informant is knowledgeable about the subject and is carefully identified, using a key informant approach is appropriate. As such, the study attempted to overcome some of the problems associated with this limitation by following a careful screening process to make sure that the respondents were knowledgeable about study issues. The results of respondents' level of knowledge and competence in issues related to the study and their positions and work experience suggest that these informants were suitable. In addition, when introduced as covariates in to the study model, respondents' level of knowledge about the respective brand and the firm alliance experience didn't have any influence on study results.

Another limitation of the study, as in all survey research, is that the generalizability of the results is constrained by non-response bias. However, the study has tried to minimize the impact by assessing non-response bias. Non-response bias analysis indicates no significant differences between early and late respondents indicating the representativness of the sample.

The use of a descriptive research design for this study raises threats to internal validity. Unlike experimental research designs that allow control for extraneous variables, descriptive research designs are not intended to control extraneous variables. This makes it difficult to establish causal relationships. However, attempts were made to reduce the threat of internal validity by including multiple covariates in the model that were identified by previous research to have an influence on the variables under investigation in order to account for their effects.

The current investigation is also limited in its scope of measuring and testing other antecedents which may affect firm propensity to brand ally. Although certain antecedents such as alliance competence, brand quality, and attitude toward alliances were measured and examined in the study, other potentially important antecedents (partner related, external environment related) were not studied here because it's outside the scope of this study and were left for future research.

Another limitation goes to measurement issues. Insignificant findings may be due to the fact that brand quality and brand motivational measures were problematic.

Directions for Future Research

There are several opportunities for future research based on this dissertation. If replicated and extended in future research, the results of our empirical investigation offer valuable insight that should advance research in strategic alliances and brand alliances literature. Suggestions for future research includes but are not limited to enhancing the model by including other relevant variables, investigating other brand alliance issues (e.g., brand alliance management, success determinants, and performance outcomes), and examining brand alliances from a dyadic perspective.

One way of enhancing the model may involve inclusion of other relevant variables. One potential group of variables to be considered is partner related variables. The strategic alliance literature shows that partner related variables such as organizational compatibility with the potential partner firm, resource complementarily with the potential partner firm, and direct prior experience has an influence on firms' alliance intentions (e.g., Spekman and Sawhney 1990; Bucklin and Sengupta 1993; Dyer and Singh 1998; Harrison et al, 2001). Other antecedent variables to firm propensity to ally also deserve further investigation. This research did not directly investigate the influence of external environment variables on propensity to brand ally (e.g., environmental dynamism and environmental uncertainty). Such an investigation will provide a more comprehensive perspective on the various antecedents of brand alliance formation.

This dissertation takes an important step to develop a model of the antecedents of firms' propensity to ally. Future research is encouraged to use this model in investigating different types of brand alliances, such as, co-branding and ingredient branding. As brand alliance researchers argue, brand alliances comes in different forms (e.g., Rao and Ruekert 1994; Simonin and Ruth 1998; McCarthy and Norris 1999). Since the objectives or formations of these alliances may differ, the antecedents of alliance formation may vary depending on the type of alliances. Future studies may make an effort to investigate propensity to brand ally within different brand alliance settings which may provide different results across alliance forms. Such research will extend and enrich the findings of this study.

Another future research direction involves the study of actual brand alliance behavior. As with other forms of inter-firm cooperation brand alliances pose significant management challenges. Research is needed to aid our understanding of how to manage brand alliances more effectively. For example, consistent with the commitment-trust theory of relational exchange (Morgan and Hunt 1994) future research might investigate how trust and commitment between partners in a brand alliance influence its management.

Another promising direction for future research is the investigation of the determinants of brand alliance success. Brand alliances are set to achieve a variety of goals such as enhancing position in current markets, entering into new markets, adding value to the firm existing product mix, decreasing risk, and reducing cost (Norris 1992; Rao and Reukert 1994; Park et al. 1996; Voss and Tansuhaj 1999; Desai and Keller 2002). Whatever the firm's goals for entering a brand alliance, one key aspect of the success of the alliance is the achievement of those goals. For example, an interesting research question is how firm specific characteristics or partner characteristics might influence the success of the brand alliance. Such research should have significant implications for both academic researchers as well as practitioners

It is also suggested that the ultimate goal of brand alliance strategy is to capitalize on brand equity, or lack of it, for better performance. As such, research that addresses the influence of participation in brand alliances on firm and brand performance is another important area of future research. This research will greatly enhance our understanding of brand alliance strategy and its performance implications both at the brand level and the overall firm performance level.

Also, future research may address some other issues. For example, this study investigated the antecedents of firm's propensity to brand ally from a cross-sectional perspective. However, adopting longitudinal research could provide more insight into the different stages of brand alliance formation process such as the decision process and partner selection. Another area of potential future research involves the underlying perspective used in this study. The study limits the investigation to an individual firm's view of brand alliances. As described in the literature, brand alliance is an inter-firm strategy. Dyadic level investigation of brand alliances will provide valuable insights. Investigating brand alliance issues such as partner selection issues, fit between partners, and how that might effect the formation and management of brand alliances are some of the promising avenues for future research.

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APPENDIXES

APPENDIX A

THE APPLICATION OF SIGNALING THEORY IN

THE MARKETING LITERATURE

Type of Signals	Author
Warranties and prices	Lutz (1989)
Warranties	Wiener (1985); Boulding & Kirmani (1993)
Advertising	Nelson (1974); Kihlstrom and Riordan (1984)
Price and Advertising	Milgrom and Roberts (1986)
Advertisng, warranties, goodwill	Ippolito (1990)
Percived advertisng cost	Kirmani & Wright (1989); Kirmani (1990)
Advertising repetition	Kirmani (1997)
Price	Wolinsky (1983); Bagwell and Riordan (1991); Alpert, Wilson, and Elliott (1993)
Reputation	Shapiro 1983
Umbrella branding	Wernerfelt (1988); Montgomery and Wernerfelt (1992); Erdem (1998)
Brand names	Erdem and Swait (1998)
Corporate name change	Horsky and Swyngedouw (1987);Koku (1997)
Brand Alliances	Rao and Ruekert (1994); Rao, Qu, and Ruekert (1999); Voss and Tansuhaj (1999)
Reputable Agent	Chu and Chu (1994)
Predation Pricing	Milgrom and Roberts (1982)
Competitors moves and verbal messages	Moore (1992)
Preannouncing Behavior	Eliasberg and Robertson (1988)
Competitive Market Signaling	Heil and Robertson (1991); Heil and Langvardt (1994); Prabhu and Stewart (2001)
New product introduction	Heil and Walters (1993)
New product announcement	Robertson, Eliasberg, and Rymon (1995)
Competitive price increase signal bluffing	Eliasberg, Robertson, and Rymon (1995)
Idiosyncratic investments and voluntary contacting activities	Anderson and Weitz (1992)

APPENDIX B

THE MEASUREMENT INSTRUMENT

Survey on Inter-firm Marketing Cooperation Practices

This survey explores inter-firm marketing cooperation issues. All information you provide is absolutely confidential and will be used only in a summary form. Participation in this study is voluntary. If you do not want to answer a particular question, just skip it, and you can quit at any time. This survey should take around 15 minutes to complete

Please answer all of the questions in section A and section B based on your knowledge and experience in managing the **brand name** referred to in the accompanying cover letter. Or, if you prefer, answer on the basis of another brand name that you may be more involved in its marketing.

Please check one:

 My answers will be based on the brand name referred to in the cover letter.
Please specify ___________________

 My answers will be based on a different brand name.
Please specify ___________________

Section A: Brand Information

How long has this brand been on the market? __________ years __________ months

Please indicate the category to which this brand belongs __ Consumer __ Industrial(Business) __ Other

Please indicate the category to which this brand belongs __________ National __________ Private-Label

This brand is a ____ Durable ____ Nondurable brand _____Services ____ Other

What is the approximate annual sales of this brand (circle one)? Less than $ I Million $1 to $10 Million $10 to $50 Million $50 to $100 Million Over $100 million
.

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding this brand's quality.	Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Agree	Strongly Agree	Extremely Agree	Perfectly Agree
Relative to competitors' brands, this brand is of high quality.	1	2	3	4	5	6	7	8	9
This brand has superior product quality and reliability relative to competitors' brands.	1	2	3	4	5	6	7	8	9
The quality of this brand compares well with competitors' brands.	1	2	3	4	5	6	7	8	9
This brand has the highest quality in the market.	1	2	3	4	5	6	7	8	9
This brand is of higher quality than the principal competing products.	1	2	3	4	5	6	7	8	9

How do you position this brand in the market place on the following product charactristics?

Prestige or image of the brand	Low End	1	2	3	4	5	6	7	High End
Product performance	Low End	1	2	3	4	5	6	7	High End
Overall product quality	Low End	1	2	3	4	5	6	7	High End

With respect to this brand what is the importance of each of the following?

	Extremely unimportant						Extremely important
Stimulating sales	1	2	3	4	5	6	7
Sharing of brand advertising expenditures	1	2	3	4	5	6	7
Gain competitive market power	1	2	3	4	5	6	7
Reduce competition	1	2	3	4	5	6	7
Minimize product-launching cost	1	2	3	4	5	6	7
Gain presence in new markets	1	2	3	4	5	6	7
Improve competitive position	1	2	3	4	5	6	7
Lower production cost	1	2	3	4	5	6	7
Maintain market position	1	2	3	4	5	6	7
International market access	1	2	3	4	5	6	7
To follow the lead of competitors	1	2	3	4	5	6	7
Minimize/sharing brand development costs	1	2	3	4	5	6	7
Short-term profitability	1	2	3	4	5	6	7
Access to important new markets	1	2	3	4	5	6	7
Minimize marketing cost	1	2	3	4	5	6	7
Attain market leadership	1	2	3	4	5	6	7
To pool resources	1	2	3	4	5	6	7
Long-term profitability	1	2	3	4	5	6	7

Please tell us about this brand products level of competitive advantage or disadvantage in served markets.

	Strong competitive disadvantage						Strong competitive advantage
Overall advantage	1	2	3	4	5	6	7
Product performance	1	2	3	4	5	6	7
Reputation	1	2	3	4	5	6	7
Product quality	1	2	3	4	5	6	7
Cost	1	2	3	4	5	6	7

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding your customer's perceptions about the quality of the products offered under this brand name.	Strongly Disagree						Strongly Agree
Our customers often praise this brand's product quality.	1	2	3	4	5	6	7
Our customers believe that the quality of this brand is better than that of our major competitors.	1	2	3	4	5	6	7
Our customers are firmly convinced that this brand offers very good quality.	1	2	3	4	5	6	7

Our customers think that this brand is : (Please give us your opinion on each)

Not Reputable	1	2	3	4	5	6	7	Highly Reputable
Not Trustworthy	1	2	3	4	5	6	7	Trustworthy
Not at all Known	1	2	3	4	5	6	7	The Best Known
The Least Believable	1	2	3	4	5	6	7	The Most Believable

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements.	Strongly Disagree						Strongly Agree
Purchasing a brand within this product category requires advance planning on the part of the customer.	1	2	3	4	5	6	7
Buyers spend time and effort prior to purchase to acquire information related to the features, functions, or benefits of brands within this product category.	1	2	3	4	5	6	7
Buyers in this product category have a need to obtain information about the brand prior to purchase.	1	2	3	4	5	6	7
First time buyers of this brand would find it difficult to judge quality through visual inspection alone.	1	2	3	4	5	6	7
The only way a consumer can tell the quality of this brand is to actually try it.	1	2	3	4	5	6	7
Consumers can easily tell the quality of different brands in this product category by simply looking at them.	1	2	3	4	5	6	7
Using this brand requires a major learning experience by the customer.	1	2	3	4	5	6	7
It takes time until a new customer can really understand the full advantages of brands in this product category.	1	2	3	4	5	6	7

Section B. Brand Alliances Information

In this section, "brand alliances" refers to cooperative marketing activities involving short-term or long-term association and/or combinations of two or more individual brands owned by different firms.

For each item below, please circle the number closest to the adjective that you believe best describes your feelings toward brand alliances.

Bad	1	2	3	4	5	6	7	Good
Unfavorable	1	2	3	4	5	6	7	Favorable
Negative	1	2	3	4	5	6	7	Positive

What is the probability that this brand will participate in a new brand alliance in the foreseeable future?

Very Improbable 1 2 3 4 5 6 7 Very Probable

How likely is it that your firm will engage this brand in a new brand alliance during the next year?

Very Unlikely 1 2 3 4 5 6 7 Very Likely

What do you think are the chances that you will engage this brand in a new brand alliance in the foreseeable future?

Very Low 1 2 3 4 5 6 7 Very High

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements.	Strongly Disagree						Strongly Agree
Our firm strongly desires to enter this brand into a brand alliance.	1	2	3	4	5	6	7
The general feeling within our management team is that we want a brand alliance for this brand.	1	2	3	4	5	6	7

In our firm, the decision to engage this brand in a brand alliance is the responsibility of:

- ☐ A committee
- ☐ An individual

****

Is this brand currently engaged in brand alliances? ☐ Yes ☐ No

(If yes, answer questions in box E)

Box E

At this time, how many brand alliances is this brand involved with? ______________

What type of brand alliances this brand is involved with at the current time? (that is, co-branding, co-promotion, brand ingredient)

____

____

____

____

Overall, how are these brand alliances performing compared to your expectations?

Very Poor	1	2	3	4	5	6	7	Very Good
Extremely Unsatisfactory	1	2	3	4	5	6	7	Extremely Satisfactory

Has this brand been engaged in brand alliances in the past? ☐ Yes ☐ No

(If yes, answer questions in box F)

Box F

In the past, how many brand alliances has this brand been involved with? ______________

What type of brand alliances this brand has been involved with in the past? (that is, co-branding, co-promotion, brand ingredient)

____

____

____

____

Overall, how are these brand alliances have performed compared to your expectations?

Very Poor	1	2	3	4	5	6	7	Very Good
Extremely Unsatisfactory	1	2	3	4	5	6	7	Extremely Satisfactory

Section C. Firm's Previous Alliance Experience

Now we are asking about your firm's experience in all types of alliances.

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements regarding your firm's previous experience in alliances in general.

	Strongly Disagree						Strongly Agree
Our firm has a deep base of partnership experience.	1	2	3	4	5	6	7
Our firm has participated in many alliances.	1	2	3	4	5	6	7
Our firm has been a partner in a substantial number of alliances.	1	2	3	4	5	6	7
Our firm has programs to develop capable alliance managers.	1	2	3	4	5	6	7
Our firm understands how to produce effective alliance managers.	1	2	3	4	5	6	7
Our firm effectively trains competent alliance managers.	1	2	3	4	5	6	7
Our firm actively searches for promising alliance partners.	1	2	3	4	5	6	7
Alliances that can help our business are sought out by our firm.	1	2	3	4	5	6	7
Our firm is consistently seeking partnering opportunities.	1	2	3	4	5	6	7
Our firm is highly skilled at those specialized tasks required in alliance relationships.	1	2	3	4	5	6	7
Our firm has developed a wide range of capabilities in the area of inter-firm cooperation.	1	2	3	4	5	6	7
I feel confident that when it comes to alliances, our firm can fulfill its required roles.	1	2	3	4	5	6	7
The history of our partnership experiences may be characterized as positive & favorable	1	2	3	4	5	6	7
Overall, our firm's partnership experience has been rewarding and satisfying.	1	2	3	4	5	6	7
The relationships that my firm has had over time were very productive.	1	2	3	4	5	6	7
Our firm's alliance relationships have been worthwhile.	1	2	3	4	5	6	7
In general, my firm's experience with alliances has been extremely good.	1	2	3	4	5	6	7

To what extent does your company get involved in alliances?

Low Extent 1 2 3 4 5 6 7 High Extent

Section D. External Environment

Please use the provided scale to indicate the extent to which you agree or disagree with each of the following statements regarding the external environment in which your firm operates.

	Strongly Disagree						Strongly Agree
Changes in the marketing practices in this product category are easy to predict.	1	2	3	4	5	6	7
The actions of our competitors are easy to predict.	1	2	3	4	5	6	7
Demand and consumer preferences are easy to predict.	1	2	3	4	5	6	7
Changes in product technology within this product category are easy to predict.	1	2	3	4	5	6	7

For each of the following items please indicate how frequently change occurs.

	Very Infrequently						Very Frequently
Firm's brand mix.	1	2	3	4	5	6	7
Firm's sales strategies.	1	2	3	4	5	6	7
Firm's promotion/advertising strategies.	1	2	3	4	5	6	7

Competitors' brand mix.	1 2 3 4 5 6 7
Competitors' sales strategies.	1 2 3 4 5 6 7
Competitors' promotion/advertising strategies.	1 2 3 4 5 6 7
Customers' preferences for product features.	1 2 3 4 5 6 7
Customers' preferences for new brands.	1 2 3 4 5 6 7
Customers' preferences for overall value.	1 2 3 4 5 6 7
Product platform technology.	1 2 3 4 5 6 7
Product manufacturing technology.	1 2 3 4 5 6 7
Product distribution technology.	1 2 3 4 5 6 7

Section E. Demographic Information

Please circle the number that best reflects your level of agreement or disagreement with each of the following statements.

	Strongly Disagree — Strongly Agree
I have extensive knowledge to assess this firm's motivations with respect to sales growth for this brand.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's motivations with respect to profit goals for this brand.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's motivations with respect to reacting to the competition.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's goals with respect to the future direction of this brand.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's motivations with respect to cost control goals for this brand.	1 2 3 4 5 6 7
I have adequate knowledge to assess this brand's quality.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's experience with respect to managing relationships with other firms.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's skills with respect to managing relationships with other firms.	1 2 3 4 5 6 7
I have extensive knowledge to assess this firm's capabilities with respect to managing relationships with other firms.	1 2 3 4 5 6 7
I have significant personal experience in alliances.	1 2 3 4 5 6 7

Please Provide the following general information about you and your firm.

Your position ____

Years in current position _________

How long have you been employed in this industry? _________years _________months

How long have you been employed with this firm? _________years _________months

How long have you been involved with this brand? _________years _________months

What is your level of education (please circle one)?

High School   Some College   College Degree   Graduate Courses   Master's Degree   Doctoral Degree

Gender Male Female

How long has your firm been in business? _________years

How long has your firm operated in this industry? _________years

How many brand names does your firm own? _________number

How would you describe your firm's branding strategy (please check one)?

- We use the same brand for all of our products.
- We use variations of the same brand across products
- We use completely different brands for some of our products.
- We use a completely different brand for each one of our products

What is the approximate number of employees in your firm (please check one)?

Less than 25	501 - 800
25 - 100	801 - 1000
101 - 200	1001 - 5000
201 - 500	more than 5000

What is the approximate annual sales of your firm (please check one)?

Less than $100,000	$1,000,000 - $4,999,999
$100,000 - $249,999	$5,000,000 - $9,999,999
$250,000 - $499,999	$10,000,000 - $20,000,000
$500,000 - $999,999	more than $ 20,000,000

WE THANK YOU FOR YOUR PARTICIPATION AND GREATLY APPRECIATE YOUR SUPPORT FOR OUR RESEARCH

Please return the completed questionnaire to the address or fax number below:

Bashar S. Gammoh
Department of Marketing
Spears School of Business
Oklahoma State University
Stillwater, OK 74078
Fax : (405) 744- 5180

If you have questions regarding your rights as a participant in this research please contact Dr. Sue Jacobs, IRB Chair, 415 Whitehurst Hall, 405-744-1676. If you have questions about this research, please contact Bashar Gammoh at (405-744-5947 or bashar.gammoh@okstate.edu) or Dr. Kevin Voss at (405-744-5106 or vossk@okstate.edu).

If you like a copy of the executive summary of these results, please either fill in a mailing address or attach a business card here.

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APPENDIX C
MEASUREMENT ASSESSMENT OF CONTROL VARIABLES

Scale	Number of Items	Eigen Value	% of Variance	Coefficient Alpha
Environmental uncertainty	4	2.33	58.16	0.76
Dynamism in marketing practices	2	1.60	79.80	0.75
Competitive dynamism	3	2.20	73.10	0.81
Customer Dynamism	3	1.86	62.00	0.70
Technological Dynamism	3	2.15	71.60	0.80
Competence in brand related issues	5	3.33	66.70	0.87
Competence in firm alliance issues	3	2.71	90.50	0.95

Note: The rest of the control variables which capture firms, brands, and respondents demographics are all single item measures

APPENDIX D

REGRESSION EQUATIONS

Equation one (the same for all models):

$$ACOMP = a + \beta_{H1}\ AEXP + \beta_2\ VEXP + \beta_{H2}\ AEXP*VEXP + e$$

Equation two (predictors differ by model)[1]:

Model # 1:
$$PBALLY = a + \beta_{H3}\ ACOMP + \beta_{H4}\ BQUAL + e$$

Model # 2:
$$PBALLY = a + \beta_1\ ACOMP + \beta_{post\text{-}hoc}\ ABALLY + \beta_{H5}\ ACOMP*ABALLY + e$$

Model # 3:
$$PBALLY = a + \beta_1\ BQUAL + \beta_2\ ABALLY + \beta_{H6}\ BQUAL*ABALLY + e$$

Model # 4:
$$PBALLY = a + \beta_1\ ACOMP + \beta_2\ ABALLY + \beta_3\ BQUAL + \beta 4\ MP + \beta_{H7}\ BQUAL*MP + e$$

Model # 5:
$$PBALLY = a + \beta_1\ ACOMP + \beta_2\ ABALLY + \beta_3\ BQUAL + \beta 4\ E + \beta_{H9}\ BQUAL*E + e$$

Model # 6:
$$PBALLY = a + \beta_1\ ACOMP + \beta_2\ ABALLY + \beta_3\ BQUAL + \beta 4\ CP + \beta_{H11}\ BQUAL*CP + e$$

Model #7:
$$PBALLY = a + \beta_1\ ACOMP + \beta_2\ ABALLY + \beta 4\ MP + \beta_{H8}\ ACOMP*MP + e$$

Model # 8:
$$PBALLY = a + \beta_1\ ACOMP + \beta_2\ ABALLY + \beta 4\ E + \beta_{H10}\ ACOMP*E + e$$

Model # 9:
$$PBALLY = a + \beta_1\ ACOMP + \beta_2\ ABALLY + \beta 4\ CP + \beta_{H12}\ ACOMP*CP + e$$

[1] Changes were made to this equation such that the proper independent variables and interaction terms were introduced at each model to test the corresponding hypothesis.

APPENDIX E

IRB APPROVAL FORM

Oklahoma State University Institutional Review Board

Date:	Monday, August 29, 2005
IRB Application No	BU064
Proposal Title:	Propensity to Participate in Brand Alliances: A Managerial Perspective
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 8/28/2006

Principal Investigator(s)

Bashar S Gammoh 312A Business Stillwater, OK 74078	Kevin E. Voss 211 Business Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 415 Whitehurst (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sue C. Jacobs

Sue C. Jacobs, Chair
Institutional Review Board

VITA

Bashar S. Gammoh

Candidate for the Degree of

Doctor of Philosophy

Thesis: PROPENSITY TO PARTICIPATE IN BRAND ALLIANCES: A MANAGERIAL PERSPECTIVE

Major Field: Business Administration

Biographical:

Education: Graduated from Yarmouk University, Irbid, Jordan in July 1997 with a Bachelor of Arts degree in Economics with a concentration in Finance; received Master of Business Administration in marketing from University of Jordan, Amman, Jordan in January 2000. Completed the requirements for the degree of Doctor of Philosophy in Marketing at Oklahoma State University in July 2006.

Experience: Employed by the University of Jordan as an instructor in the marketing department from September 2000 to December 2001; employed as a graduate teaching associate in the marketing department, Oklahoma State University, Stillwater, Oklahoma, from 2003 to 2006.

Professional Memberships: American Marketing Association, Association of Consumer Research.

Name: Bashar S. Gammoh　　Date of Degree: July 2006

Institution: Oklahoma State University　　Location: Stillwater, Oklahoma

Title of Study: PROPENSITY TO PARTICIPATE IN BRAND ALLIANCES: A MANAGERIAL PERSPECTIVE

Pages in Study: 213　　Candidate for the Degree of Doctor of Philosophy

Major Field: Business Administration

Scope and Method of Study: A review of the brand alliance literature indicates that while scholars have concentrated on understanding consumers' reactions to brand alliances, the antecedents of firm participation in brand alliances are still not well understood. The purpose of this research is to fill this gap by investigating brand alliance formation at the firm level. Therefore, based on a review of relevant literature, this research developed a conceptual framework of brand alliance formation and empirically test a subset of this framework focused on firm-level alliance capabilities (i.e., alliance competence) and brand-level attributes (i.e., product quality) as antecedents of firms' propensity to brand ally. In addition, this research attempts to empirically test the moderating effects of firm level motivational factors (e.g., market entry/penetration) and managerial attitudes (e.g., attitude toward brand alliances) on the proposed relationships. Research hypotheses were empirically tested with rigorous research methods on a national sample of senior marketing executives and brand managers.

Finding and Conclusions: Results indicate a significant direct relationship between alliance experience and alliance competence. More importantly, valence of alliance experience was shown to exhibit a moderating influence on the relationship between alliance experience and alliance competence. That is, the more positive alliance experience is the stronger the relationship between alliance experience and alliance competence. In addition, results indicate that alliance competence positively influenced propensity to brand ally. Although attitude toward brand alliances didn't moderate the relationship between alliance competence and propensity to brand ally, it has a strong and positive direct influence on propensity to brand ally. The empirical findings failed to support part of the proposed model. More specifically, the proposed influence of brand quality on propensity to brand ally was not significant. Also, the interaction effects of the three brand motivational variables on the relationship between brand quality and propensity to brand ally and the relationship between alliance competence and propensity to brand ally were also not significant. Several potential explanations for the non-significant results were explored. Next, theoretical and practical implications of study results were discussed. Finally, research limitations and directions for future research were presented.

ADVISOR'S APPROVAL: Kevin E. Voss