Marketing Essays on Complex Organizational Forms and Risk

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Chapter 1 – Introduction

1.1. Motivation

In today's competitive and global business environment, firms face difficulties in maximizing marketing performance only with their marketing resources. Firms engage in marketing alliances with external parties to gain access to marketing resources such as markets, brands, and products (Bucklin and Sengupta 1993; Swaminathan and Moorman 2009). These alliances come in many different forms. Many industries are witnessing the formation of multiple-partner marketing alliance (Fang, Lee, Palmatier, and Guo 2016). An example is multilateral co-branding alliances with multiple partners to create a single branded-product, co-existing with the firm's own brand (Gomes-Casseres 1994; Lazzarini 2007). Moreover, firms engage in multiple marketing alliances with different partners on different functions to promote and penetrate their goods (Thomaz and Swaminathan 2015).

I believe the discussion of marketing's impact on firm performance should benefit from the consideration of these complex organizational forms in marketing settings. In this dissertation, I attempt to enrich the study of inter-organizational relationships in marketing by studying complex alliance forms. I present two empirical analyses of increasingly common alliance arrangements: co-branding alliances with multiple partners and portfolios of marketing alliances. Co-branding alliances offer brand synergies, but they also expose participating firm's own brands to unintended risk from common alliance brand when negative events (e.g., brand crisis) occur. It is important to understand how firms can manage their alliance relationship to reduce this risk. Next, firms form multiple marketing alliances with different partners simultaneously, forming *portfolios* of alliances to replace deteriorating internal resources and amass new resources to generate and stabilize demand. However, the role of a firm's marketing investments in alliances on reducing risk, which is linked with the

demand uncertainty, remains vague. Thus, additional scholarly efforts in exploring the impacts of this specific marketing investment on firm risk would be useful to improve accountability of marketing investments.

Inspired by the complexity of marketing alliance arrangements and their potential consequences on different types of risk, this dissertation aims to shed a light on the complex organizational forms in marketing.

1.2. Contribution to the Marketing Literature

This dissertation builds on the research studying inter-organizational relationships and their performance implications in marketing context. First, we examine a brand crisis breakout scandalizing the common brand in a multilateral co-branding alliance that leaving member firms' brands considered guilty by association. We propose that how member firms manage their relationships with the alliance have a role in limiting negative repercussions of the crisis on their brand reputations. We capture a unique linkage between firm-level relational strategies and customer brand evaluations in the wake of a crisis, and demonstrate that relational strategies have implications that go beyond the inter-organizational level.

Next, we explore marketing alliances portfolios that have only been studied within overall alliance portfolios (i.e., Cui and O'Connor 2012; Cui 2013). To the best of our knowledge, this is the first study to consider marketing alliance portfolios as a standalone entity with its own challenges and important performance implications. We focus on the isolated effects of these portfolios to gain a better understanding of the value of marketing investments made in alliances. Therefore, we add to the research stream that is interested in linking marketing investments to financial performance by investigating the role of alliance portfolio composition on predicting shareholder risk.

1.3. Overview of Chapters

In what follows, I briefly describe the different chapters.

In Chapter 2, "Crisis in Multilateral Co-Branding Alliances: Consequences for Member Firms", we study a multilateral co-branding alliance facing a brand crisis. While co-branding alliances offer benefits, they also entail risks. In the case of a brand crisis, when the common alliance brand is subject of negative press coverage, individual alliance partners may suffer from negative spillover effects, such as customers questioning their individual reputations. Interestingly, not all alliance partners within a given co-branding alliance are equally affected when an alliance is hit by a crisis—some partners appear immune to reputational damage. To explain this variation, we build new theory linking the strategy literature on inter-organizational relationship governance with the body of knowledge on brand alliances and brand crises in marketing. We argue that when the common alliance brand is affected, a firm needs to adapt its strategies and resources between common and individual brand to contain the negative spillover of the crisis to their individual brand. We argue that how a firm governs its relationship with the alliance determines the extent of strategic flexibility, thereby determining the extent of reputation dilution to the individual brand following a brand crisis.

To test our conceptual framework, we examine a European multilateral co-branding alliance consisting of 78 retail banks, which has gone through a major crisis resulting in a negative press coverage over an extended period of time. We use a rich data set comprising longitudinal survey data from both customers and bank managers. Applying a multilevel model based on pseudo-panel data, we show that the nature of the alliance partner's relationship with the alliance can indeed help firms protect their brand reputations following a brand crisis. This effect is greater for alliance partners who maintain ties with the alliance

characterized by frequent information exchange but it is weaker for partners with a vested interest in the alliance either via positive appraisal or via economic investments.

Chapter 3, "The Impact of Marketing Alliance Portfolios on Stock Return Risk", explores a firm's portfolio of marketing alliances that reflects a firm's overall access to external marketing resources. We examine the role of a firm's portfolio in determining the shareholder risk, which is a stock return's sensitivity to a firm idiosyncratic activities and overall market changes. We argue that portfolio of marketing partnerships have important implications for risk because risk is often linked to demand uncertainty and marketing alliances provide access to new resources to replace deteriorating internal resources that firms use to generate and stabilize demand.

We compose a unique sample by tracking the marketing portfolios of 137 U.S. manufacturing firms over a ten-year period. Using a random effects model that accounts for unobserved heterogeneity, we demonstrate that there is no uniform effect of marketing alliance portfolios on risk. Building on the resource-based view and governance theory, we show that the type of alliance partners and the nature of alliance domains that typify the alliance portfolio exert differential effects on risk. We find that overlap in terms of partners (active in the same industry, HQs in the same nation) as well as overlap in terms of alliance activities (in related rather than unrelated domains) decreases risk. In addition, these effects are moderated by firm size. For example, smaller firms benefit more from the risk reducing effect of level of competition while they suffer more from the risk enhancing effect of national dispersion.

Chapter 4, "Conclusions", summarizes the major findings and limitations, and contributions of prior chapters. Finally, the chapter suggests an agenda for future research.

Chapter 2 - Crisis in Multilateral Co-Branding Alliances: Consequences for Member Firms

2.1. Introduction

In today's competitive business environment, firms have increasingly turned to co-branding alliances as sources of value creation and potential sources of competitive advantage. Co-branding alliances are sets of firms joined together to create a common alliance branded product or service, co-existing with alliance member's individual brands (Gomes-Casseres 1994; Rao and Ruekert 1994). These alliances are prevalent across multiple industries, including airlines and financial services (Lazzarini 2007). Examples include the Star Alliance compromising airlines such as Lufthansa and United Airlines, and community credit union Vancity's participation in the Global Alliance for Banking Values.

Co-branding alliances offer opportunities for member firms in the form of operational and brand synergies. A central alliance management is responsible for various joint marketing activities, including product development and advertising, as well as providing sourcing and cost benefits (Erevelles, Stevenson, Srinivasan, and Fukawa 2008; Gomes-Casseres 1994). A positively evaluated co-brand enhances the attitudes toward the individual brands through positive spillover effects (Simonin and Ruth 1998). Despite these benefits that have been extensively discussed in the marketing literature, co-branding alliances also represent risks due to the joint dependencies for member firms. A negative event that results from the actions of one of the firms involved in the alliance may have negative repercussions for the other member firms, regardless of their blame (Jonsson, Greve, and Fujiwara-Greve 2009). Member firms risk suffering from negative spillover due to shared reputation (Barnett and King 2008) and they may simply be perceived as "guilty by association" (Jonsson et al. 2009). In sum, the shared reputation of co-branding alliance members, often considered a

major benefit of co-branding alliances, also entails risk by intertwining the fates of the member firms.

Brand crises are "unexpected events that threaten a brand's perceived ability to deliver expected benefits" (Dutta and Pullig 2011, p.1281) thereby weakening brand evaluations and brand choice (Ahluwalia, Burnkrant, and Unnava 2000; Dawar and Pillutla 2000; Pullig, Netemeyer, and Biswas 2006). Ford-Firestone tire recall, and Nike's alleged use of child labor are examples of brand crises. An interdisciplinary literature explores the predictors of negative spillover from these brand crises to other firms and sub-brands (for relevant examples see Table 1).

Previous research reveals that such crises not only affect the afflicted brand, negative effects spill over to the sub-brands (Lei, Dawar, and Lemmink 2008), competing brands in the same category (Roehm and Tybout 2006), and other firms in the industry (Yu, Sengul, And Lester 2008). However, no research has examined spillover from common alliance brand to individual brands for the increasingly common arrangements - co-branding alliances. Research has studied relatedness between brands (Lei et al. 2008), similarity between firms in the same industry and firm characteristics (Johnsonn et al. 2009; Roehm and Tybout 2006; Yu et al. 2008) as predictors of negative spillover effects. However, the notion that the governance of the relationship with the alliance can have an effect on hedging participant firms from negative effects of crises has not been adequately fleshed out.

To this end, our study attempts to identify the effectiveness alliance relationship management in protecting the individual brand reputations when confronted with a brand crisis threatening common alliance brand. When the common brand is implicated, participating firms need to adapt their strategies and resources between alliance and individual brand to contain the negative spillover of the crisis to their individual brand. We argue that how a firm governs its relationship with the alliance determines the extent of

strategic flexibility, thereby determining the extent of dilution in their brand reputation evaluations.

Our unique contribution to the literature is that we examine brand crisis in a multilateral co-branding alliance and we argue that alliance relationship management affects a partner firm's vulnerability to the consequences of an alliance crisis. Thus, first we add to the brand crisis literature by studying brand crisis in a co-branding alliance context and looking at the negative spillover effects of the crisis from the alliance brand to individual brand of alliance members

Second, we extend the scope of governance theory by exploring the impact of governance mechanisms in hedging firms against negative repercussions of a brand crisis. Previous literature has analyzed how similarity, relatedness between firms or brands have a role in predicting the extent of spillover (Jonsson et al. 2009; Lei et al. 2008; Roehm and Tybout 2006). However, we suggest that the consideration of how the relationship is governed between an alliance and alliance participant is required to study the spillover from the common alliance brand to an individual brand. Building on a rich tradition of prior research on inter- organizational ties (Granovetter 1973; Williamson 1985), we hypothesize that three fundamental dimensions of intensity of relationship (tie strength, comprising of frequency of interaction and affective appraisal, and economic investment) have an effect on how firms adapt their marketing strategies according to the crisis, and therefore protect their own brand from reputational dilution. Therefore, this study provides evidence that relational strategies between a firm and the alliance have implications on limiting the negative brand evaluations.

Empirically, the study uses a European multilateral co-branding alliance consisting of 78 retail banks, which has gone through a major brand crisis, involving their common brand name, resulting in negative press coverage over an extended period of time. We compose a

unique database on the basis of longitudinal survey data collected among bank managers and customers, as well as an additional secondary data. The data collection time span (three annual surveys at both manager and customer level) covers the period after the brand crisis. This unique data set allows us to explore how participating firms can protect their brand reputations in the eyes of their customers following a brand crisis. We observe that not all alliance partners within a given co-branding alliance are equally affected when an alliance is hit by a crisis—some partners appear immune to reputational damage. We analyze the impact of how a firm coordinates its relationship with the co-branding alliance on protecting customer perceptions regarding the firm's brand reputation.

The remainder of the paper is organized as follows. We begin with presenting our conceptual framework and research hypotheses. We follow by describing the empirical context of our study and the data. We then describe the research method used to test the hypotheses and the empirical results. We conclude with a discussion of the implications of our findings along with limitations and future research ideas.

2.2. Conceptual Framework

To analyze a firm's ability to recover from a brand crisis in a co-branding alliance, we build new theory by linking the governance literature and behavioral theories with the body of knowledge on brand alliances and brand crises. We argue that how the firms govern their relationship with the alliance determine the extent of flexibility that gives the ability to change their strategies and resources between common brand and individual brand in the times of brand crises, and thus affect customer evaluations of reputation.

A brand crisis can cause unpredictable shifts in consumer perceptions and eventually demand patterns (Dawar and Pillutla 2000). To successfully manage organizational crises,

firms should have a flexibility that bestows the firm the ability to respond promptly to market opportunities and changing technologies (Sanchez 1995), and manage environmental uncertainty (Evans 1991). Flexibility is the ability to identify changes in the external environment to commit courses of action and resources in response to change, and halt or reverse such commitments when it is time (Harrigan 1980). A firm who has the flexibility to respond to an unforeseen change is better off than a firm locked into a single course of action (March 1991). Marketing and strategy researchers has shown that strategic flexibility enhances firm performance after an economic crisis because they are able to adapt their operations and marketing strategies in line with unanticipated negative change (Grewal and Tansuhaj 2001; Lee and Makhija 2009).

We expect flexibility to play a crucial role for member firms of a co-branding alliance when faced with a brand crisis. The inter-organizational relationship produced by the co-branding alliances creates a concern that "co-branding does not allow a specific focus on just one set of marketing and operational guidelines but expands attention to two or more" (DiPietro 2005, p.97). Having managerial discretion to choose the best strategy, which can be different for each firm, to address a brand crisis is crucial for a firm participating in a co-branding alliance. Previous research has studied some of the response strategies as proactive product recall in the case of a brand-harm crisis (Chen, Ganesan, and Liu 2009), issuing denials (Roehm and Tybout 2006), ownership separation statement in a franchising context (Shin, Casidy, Yoon, and Yoon 2016), changing advertising spending (Xiong and Bharadwaj 2013), ceremonial actions (Zavyalova et al. 2012). In a co-branding alliance context, managers can choose to de-emphasize the common brand from their marketing campaigns, or they can choose correct the perceptions about common brand by informing and reassuring customers, or they can take the responsibility and try to allocate more budget on corrective

actions. Therefore, in the wake of a crisis, firms in co-branding alliances need to avoid dysfunctional rigidity and become flexible enough to adapt their marketing strategies.

We suggest that how the firms govern their relationship with the alliance determine the extent of this flexibility. For example, the frequency of interaction can increase strategic flexibility (Cui and O'Connor 2012) or the level of economic investment in an inter-organizational relationship decrease managerial discretion (Rokkan, Heide, and Wathne 2003). To understand the effects of relationship governance, we focus on the intensity of the relationship. How intensely a firm is tied to the alliance and the level of economic investment made in the alliance determines how the relationship is managed. From behavioral theories perspective, relationship intensity implies tie strength, which is a combination of amount of time and emotional intensity that characterize the tie (Granovetter 1973). Affective and behavioral dimensions of ties have differential impacts on inter-organizational relationships (Stanko, Bonner, and Calantone 2007). Consistent with Marsden and Campbell (1984), and Wuyts, Stremersch, Van Den Bulte, and Franses (2004), we focus on the definition of tie strength that focuses on frequency of interaction and positive appraisal. From governance theories, intensity of relationship corresponds to the level of non-redeployable economic investments in a partnership (Williamson 1975). Thus, we define three dimensions of relationship intensity as: level of interaction, positive appraisal, and level of economic investment in the alliance.

This framework recognizes that economic exchanges are implanted in social systems in which social and emotional effects exist with economic ones (Granovetter 1985). It is particularly useful because it incorporates a behavioral dimension, an affective dimension, and an economic one. It allows us to answer relevant questions including: Which dimension(s) of governance should a firm focus on in order to hedge themselves from the negative repercussions of a brand crisis?

2.2.1. Frequency of Information Sharing

Frequency of interaction engenders information sharing, thereby increasing opportunities to identify, grasp and transmit knowledge and other resources effectively. Information sharing facilitates problem solving and adaptation to unforeseeable events (Poppo and Zenger 2002; Sahin and Robinson 2005) and increases strategic flexibility (Cui and O'Connor 2012; Saraf, Langdon and Gosain 2007).

The marketing channel literature suggest that when there is environmental uncertainty, the channel partners can attenuate unpredictability by sharing information regarding their customers and market environment (Frazier, Maltz, Antia and Rindfleisch 2009). Information transmission helps the firms interpret the changing conditions of the market and customer preferences and adapt their offerings accordingly (Cannon and Perrault 1999). For example, a manufacturer passing on critical information about the products to their closer ties in the network (Uzzi 1997) gives them an important advantage which helps them to adapt their course of action during a crisis. Moreover, frequent information exchange facilitates strategic flexibility in terms of innovation and improved offerings. In an alliance portfolio context, knowledge sharing helps firms to innovate and benefit from a diverse alliance portfolio (Cui and O'Connor 2012), and in information systems context knowledge sharing helps firm improve their offerings (Saraf et al. 2007).

In the wake of a brand crisis, frequency of information exchange with the alliance can help the firm get more information about the changing market environment, customer behavior, and alliance's planned course of action about the management of the crisis. This information gives firm more opportunities to choose a strategy in response to the alliance strategy and market needs. A firm can adapt its marketing communication strategies in line or against alliance's crisis management strategy. It can adapt their product offerings according

to changing customer preferences. So, firms can contain reputational damage to their own brand with this flexibility bestowed by the frequent information sharing. Thus:

H1: In the wake of an alliance crisis, customer perceptions of member reputation are higher for members that regularly share information with the alliance.

2.2.2. Positive appraisal

The inter-organizational literature has overlooked the affective component of inter-organizational relationships as compared to the behavioral components (see exceptions: Gilliland and Bello 2002; Kim and Frazier 1997). However, a firm's relationship with a co-branding alliance seems conducive to developing strong affective influences because these relationships are often associated with substantial socialization, involvement and interdependence (Stanko et al. 2007). In our study, the affective content implies the positive appraisal of the alliance by the participating firm.

The affective nature of the relationship is associated with both economic rewards and psychosocial aspects (Geyskens, Steenkamp, and Kumar 1999). In the inter-organizational literature, positive affective ties have been shown to have an effect on affective commitment (Stanko et al. 2007), which is associated with the desire to continue a relationship (Kumar, Scheer, and Steerkamp 1995) and unity (Kim and Frazier 1997). Positive appraisal diverts attention from economic optimizing behavior to relationship sustenance (Uzzi 1997). Affective appraisal increases the willingness to give something of themselves for the good of the organization. Echoing his view, in the inta- and inter-organizational literature it has been shown that affective ties and cooperative character of a relationship yields co-production and extra-role behaviors (Gruen, Summers, and Acito 2000; MacKenzie, Podsakoff, and Ahearne 1998; Wuyts 2007).

We argue that positive appraisal in a co-branding alliance will prompt member firms to hold on to the alliance more rigidly, due to an often overriding focus on mutuality and

mutual benefit with the alliance. For example a firm who can benefit more from de-emphasizing common brand in their marketing activities, because of its specific customer preferences, may instead choose a different strategy that they think to be more beneficial to the common brand. So, when there is an alliance crisis, members who have high appraisal with the alliance may choose to focus on mutual interest instead of adapting their offerings and marketing strategies that may require them to go against the mutual benefit of the alliance. We expect firms with high levels of alliance appraisal to have difficulties in containing the negative spillover from the common brand to their own brands. Thus:

H2: In the wake of an alliance crisis, customer perceptions of member reputation are lower for members that have a more positive appraisal with the alliance.

2.2.3. Economic Investment

Economic investment refers to the transaction-specific investments that are dedicated to a relationship and cannot easily be redeployed (Heide 1994; Parkhe 1993). In an equity-alliance, the economic investment refers the equity stake of the partner in the co-branding alliance.

Economic investment dedicated to the alliance is costly to redeploy to alternative uses or relationships, therefore it locks the member firms into the relationship to a significant degree (Williamson 1985). Higher economic investments create an incentive to maintain the relationship since it is assumed that member firms with higher economic investments prefer to see their investments to be maximally utilized. From a behavioral perspective, it also leads to higher solidarity (Rokkan et al. 2003), which promotes joint value creations rather than individual value claiming (Ghosh and John 1999). Solidarity indicates that partner firms view the relationship as mutually beneficial (Macneil 1980), and as a result, they are more willing to preserve the relationship. In summary, economic investments in alliances decrease managerial discretion (Ariño, Ragozzino, and Reuer 2008; Rokkan et al. 2003).

We argue that firms who are more economically invested in the co-branding alliance holds a negative view towards individual value maximization and prefer to focus on joint value maximization. However, there might be cases when they can benefit from a strategy that might not be mutually beneficial, such as distancing themselves from the alliance and de-emphasizing common brand in their marketing activities. Therefore, since high economic investments reduce the managerial discretion to choose the best strategy, the firm might have less latitude to adapt to unforeseeable shocks, adapt their marketing strategies and product offerings that will protect their own brand. So, reputational damage is more difficult to be contained by firms with higher economic investment. Thus:

H3: In the wake of an alliance crisis, customer perceptions of member reputation are lower for members that have higher economic investment in the alliance.

2.3. Research Context

Our empirical context comprises Terra Gruppen AS - a co-branding alliance of 78 retail banks operating across Norway. The member firms join together to create a common alliance branded (Terra) product line that co-exists with their individual brands. In November 2007, the member banks rocked by a crisis involving the common "Terra" brand name.
Terra Securities, a subsidiary of Terra Gruppen AS, has found to sold securities in an allegedly questionable manner. It became known as the Terra Securities Scandal, which involved speculative investments by eight municipalities of Norway in various hedge funds in the U.S. bond market (Landler 2007). Speculative investments had resulted in a disastrous loss of just under 1 Billion Norwegian Kroner of taxpayer funds. The incident known as Terra Securities Scandal had been subject to extensive press coverage (Landler 2007). The Terra brand was the primary culprit in this financial scandal. Extensive press coverage in

both local and national newspapers and TV tainted the common alliance brand Terra, as well as the individual member banks' brands.

2.4. Data

Our data is collected from participating retail banks in the Terra alliance and the customers of these banks. We obtain bank-level measures (i.e., information sharing, positive appraisal) from managers of the member firms. In addition, we collected archival information regarding the equity stake of the banks in the alliance and their financial information (profits). We obtained customer-level variables (i.e., bank reputation, relationship tenure) from customers of participating firms. For our empirical analysis, we built a rich data set comprising surveys of more than 13,000 customers, and over 200 managers across 78 retail banks, administered on an annual basis, from 2008 through 2010.

2.4.1. Manager Data

Participants in the bank manager survey are the managers across 78 retail banks. The same surveys were administered on an annual basis, from 2008 through 2010. The managers were asked to answer questions about bank's relationship with Terra. To increase the quality of the informant reports, managers were asked about their personal level of involvement with their bank's dealings with the Terra alliance.

We aggregate the response data that have been obtained from multiple informants per bank. Following the literature, we use weights derived from self-reported alliance involvement scores to aggregate the data at the bank level (Van Bruggen, Lilien, and Kacker 2002). Since the response accuracy of managers from the same bank cannot be determined with certainty, a weighted average of the responses from informants that assigns higher weights to those more likely to be accurate gives us higher confidence in the results.

2.4.2. Customer Pseudo-Panel Data

Participants in the customer survey are recruited from a large, demographically diverse population of approximately 13,000 customers across 78 retail banks for each data collection year. Participants answer questions about basic demographic information, and their relationship with the bank and with the co-branding alliance Terra. The data from customers are a repeated cross-section (customers usually do not overlap over time) that is collected over three years, from 2008 through 2010.

The main empirical challenge in evaluating how customer perceptions changes across banks and over time is to develop a multilevel model where customers are nested within banks and banks are nested within years. For this, we need to track the same banks and customers over years. However, as we discussed in the preceding section, survey participants do not overlap in each year, so rather than a classical panel structure, the data have the structure of a series of cross-sectional data. To facilitate panel-style analysis, we adopt a pseudo-panel approach (Deaton 1985). The pseudo-panel approach consists of aggregating "similar" individuals into a number of cohorts, which can be constructed over time, and matching cohorts across time, and treating the average values of the variables in the cohorts as synthetic observations in a pseudo-panel (Xu, Forman, Kim, and Ittersum 2014). Therefore, our analyses are conducted at the cohort level rather than at the individual level.

Even though this approach has limitations compared to real panel data, it reduces several problems associated with real panel data. First, it overcomes the problem of sample attrition and allows the possibility for the construction of larger panels in the time dimension. Second, obtaining observations by averaging different observations in a cohort reduces the measurement error (Deaton 1985).

Constructing a pseudo-panel requires identification a set of reliable, time-invariant criteria to identify cohorts; the same customer remains in the same cohort over time (Verbeek

and Nijman 1992). We construct our cohorts using year of birth and customer's relationship tenure with the bank. Each characteristic is coded as a categorical variable. For the year of birth, we created 5 categories spaced every 10 years based on the mean and the standard deviation. For relationship tenure, first we determine the year they started their relationship with the bank, then we created 2 categories using a median-split strategy to determine who has higher relationship tenure versus lower relationship tenure with their banks. We ended up with 10 cohorts for each bank for each year of data collection. To give an example, one cohort in our pseudo-panel consists of first-year observations from customers of bank number 24 who were born between 1966 and 1975, and had high relationship tenure with the bank (that started before 1989). In our pseudo-panel data, the average number of customers per cohort is 25.

When we combine the customer pseudo-panel with manager survey and archival data, we end up with 73 banks, with a total of 2097 observations, followed over a 3-year period. Following previous literature, we use cohort-level averages for customer level variables (Deaton 1985; Xu et al. 2014).

2.4.3. Measures

Where available, we used existing scale items after we adapted them to our research context (see the Appendix). We operationalized the manager-level constructs (frequency information sharing and positive appraisal) by using a seven-point Likert scale, and customer-level constructs (customer reported bank reputation and Terra reputation) by using a ten-point Likert scale. Level of economic investment and profits are reported by the banks.

We assessed the reliability of the multi-item scales by calculating their coefficient alpha (Cronbach 1951). The coefficient alpha levels all exceed the .70 threshold, indicating sufficient internal reliability. We investigated discriminant validity by calculating the shared variance between all possible pairs of constructs. We find that they are consistently lower

than the average variance extracted for the individual constructs (Fornell and Larcker 1981), indicating discriminant validity.

Dependent variable. Customer reported firm reputation is measured using ten-point Likert scales. Items include "Rate the reputation of the bank," and "Rate the reputation of the bank as perceived by your friend."

Frequency of information sharing. We measure frequency of information sharing using seven-point Likert scales adapted from Cannon and Homburg (2001). Items include "We regularly share information about new products and services that can benefit our customers," "We regularly share information about new solutions that can benefit our bank," and "We regularly share information about how we can strengthen our market position."

Positive appraisal. We measure positive appraisal with seven-point Likert scales adapted from Olsen and Johnson (2003). Example items include "Overall how satisfied are you with Terra Gruppen?" "Think about an ideal partner, how close to this ideal is Terra Gruppen?"

Economic investment. We measure economic investment by the natural log of the firm's equity share of in the alliance.

Control variables. We control for customer age, and customers' relationship tenure, as measured by the length of a customer's relationship with the bank. Next, we control for Terra reputation, as reported by the customer on two items, because attitude toward the alliance itself can influence how the brand is evaluated (Simonin and Ruth 1998). In addition, we control for GDP growth in order to control for the effect of the global financial crisis experienced during the data collection period. At bank-level, we control for firm profits. Finally, we add a dummy that takes value 1 for the banks located in municipalities that are heavily affected from the brand crisis and 0 otherwise.

Table 2 presents the descriptive statistics and the correlations between the variables.

2.5. Empirical Analysis

2.5.1. Model

Our data possess a multi-level structure. We specify a model with three levels to reflect that time observations are nested within cohorts of customers and cohorts are nested within banks. Variables that vary with time are included in the Level-1 equation as predictor. Included in Level-2 are predictors that vary with cohorts of customers but not with time. Level-3 contains the predictors that vary across banks. Such a multi-level methodology minimizes potential bias due to unobserved fixed, random, and time-varying effects. For expositional clarity, we develop the model step-by-step by presenting separate equations for each level before using substitution to arrive at our estimation equation.

Level 1: Across time within a cohort (of customers)

The Level-1 (within subject, or intraperson) model uses the time-varying predictors (subscripted for the ***t***th year (t=1,2,3), ***c***th cohort (c=1,..,10) and ***b***th bank (b=1,..,73) and a random error term (r_{tcb}) , which is assumed to be normally distributed with zero mean and variance $\sigma_t{}^2$. In this study, bank reputation is a function of the linear time (year), bank-level variables (positive appraisal and information sharing), and control variables that vary with time. The control variables are customers' reputation score for Terra, bank profits, and GDP growth. For notational convenience, we label the time-varying control variables $TVControl$.

It is important to note that although Level-1 in our model is formulated at individual level, as noted previously, we cannot observe the same customer over time in our data. Therefore, following previous literature, we estimate a pseudo-panel model in which we compute and use cohort-level averages for customer level variables, such as customer reported Terra reputation (Deaton 1985; Xu et al. 2014).

$$(1)\ Bank\ Reputation_{tcb} = \alpha_{0cb} + \alpha_{1cb}Year + \alpha_{2cb}Positive\ Appraisal_{2tcb} + \alpha_{3cb}InfoShare_{3tcb} + \sum_{q=4}^{6} \alpha_{qcb}TVControl_{qtcb} + r_{tcb}$$

Level 2: Across cohorts (of customers) within a bank

Level 2 includes all the parameters from level 1 as dependent variables. The predictors are subscripted for the ***c***th cohort and ***b***th bank. Equation (2a) shows that bank reputation in cohort c in bank b is a function of bank-specific intercept (β_{00b}), non time-varying control variables ($NTVControl$) and a random error term (u_{0cb}), which is assumed to be normally distributed with zero mean and variance τ^2. Non time-varying control variables are customer age, education and relationship tenure with the bank. Equation (2b) specifies the slopes of all level 1 predictors as being fixed across time within bank.

$$(2a)\ \alpha_{0cb} = \beta_{00b} + \sum_{r=1}^{3} \beta_{0rb}NTVControl_{rcb} + u_{0cb}$$

$$(2b)\ \alpha_{qcb} = \beta_{q0b} \text{ for } q = 1, \ldots, 6$$

Level 3: Across banks

Level 3 incorporates predictors subscripted for the ***b***th bank. Equation (3a) specifies the bank reputation in each bank (β_{00b}) as a function of an intercept, one non-time-varying bank level variable (economic investment), and an error term. Equations (3b) and (3c) specify all the non time-varying and time-varying variables as fixed effects. The error terms in Equations (3a), (3b), and (3c) are assumed to be multivariate normally distributed over banks with zero mean and variance-covariance matrix T.

(3a) $\beta_{00b} = \gamma_{000} + \gamma_{001} Economic\ Investment_{1b} + e_{00b}$

(3b) $\beta_{0rb} = \gamma_{0r0}$ for $r = 1, \ldots, 3$

(3c) $\beta_{q0b} = \gamma_{q00}$ for $q = 1, \ldots, 6$

By successive substitution we arrive at a single composite formulation that includes variables for all three levels, which is given by:

(4) $$Bank\ Reputation_{tcb} = \gamma_{000} + \gamma_{100} Year + \gamma_{200} Positive\ Appraisal_{2tcb} + \gamma_{300} InfoShare_{3tcb} + \sum_{q=4}^{7} \gamma_{q00} TVControl_{qtcb} + \sum_{r=1}^{3} \gamma_{0r0} NTVControl_{rcb} + \gamma_{001} Econ\square mic\ Investment_{1b} + r_{tcb} + u_{0cb} + e_{00b}$$

where:
TVControl: customer reported Terra reputation, bank profits, and GDP growth.
NTVControl: Customer age, education, and relationship phase with Terra

For estimation, we use the maximum likelihood estimation technique using Stata's "xtmixed" command. Xtmixed fits linear mixed models, a generalization of standard linear regression for grouped data.

2.5.2. Results

Table 3 outlines the estimation results for our model. The variance inflation factors are below the suggested cutoff value of 10 (the highest value is 1.4) (Mason and Perreault 1991). This result indicates that multicollinearity is not a significant concern in this model.

H_1 posits that in the wake of a brand crisis, the frequency of information sharing between the member firm and the alliance helps the firm mitigate reputational damage. The effect of the frequency of information sharing on customers' perception of bank reputation (.067, $p < .01$) is positive and significant; thus. H_1 is supported. H_2 states that the extent of positive appraisal makes firms more vulnerable to customer reputation dilution following a brand crisis. The significant and negative effect of positive appraisal on customer reputation (-.041, $p < .05$) provides support for H_2. Finally, H_3 predicts that also economic investments

in a co-branding alliance negatively affect customer perceptions of bank reputation. We find support for H_3; high economic investments decrease customer assessment of brand reputation (-.087, $p < .01$).

2.5.3. Post hoc Analysis

A legitimate question at this point would be whether our results are indeed specific to the aftermath of a brand crisis. Since we also collected survey data in the year *preceding* the co-branding alliance crisis, our data give us an opportunity to test whether these effects hold for the year prior to crisis.

As a first step, we run the same model with 4 years of data, in which one year belongs to the year prior to crisis and three years after the crisis. As seen in the second column of Table 4, we get the same main effects; information sharing improves bank reputation while positive appraisal and economic investment decrease it. In the second step, we interacted the main effects with a post-crisis dummy, which takes value 1 for the years that represent the aftermath of the crisis, and 0 for pre-crisis year. The results show that none of the main effects of three key variables are significant while all three interactions with the post-crisis dummy are significant and in line with the results presented earlier. In the third step, we run the model only for the year prior the crisis and compare it with the results from the first step. As seen in Table 4 in third column, none of the relational variables affect bank reputation during the year that was not affected by the brand crisis. We conclude that the effects of relational variables on customer perceptions of bank reputation are indeed only present in the aftermath of the crisis. In other words, the developed theory is specific to co-branding alliances in the wake of a crisis.

2.5.4. Robustness Checks

Because we use pseudo-panel data set for our empirical analysis, a potential concern exists

that our results may not be robust to various cohort compositions strategies we used to compute cohort level averages. Although the theoretical literature stream supports the large sample properties of the pseudo-panel analysis (i.e., Verbeek and Vella 2005), we conduct various checks to ensure that our results are robust to reasonable deviations in cohort composition approaches.

To investigate the robustness on cohort composition, we construct pseudo-panels by grouping individuals into cohorts on a different set of observable variables similar to prior studies (Xu et al. 2014). We construct two alternative pseudo-panels; (1) using year of birth only and (2) using year of birth, customer's relationship tenure with the bank and gender. In the first alternative pseudo-panel we ended up with 5 cohorts per bank per year, with an average number of 47 customers per cohort, and 1050 observations. In the second model, we aggregated the data into 20 cohorts per bank per year, with an average number of 14 customers in a cohort, and we ended up with 4135 observations. As seen in Table 5, we observe that our estimates are robust to different cohort strategies.

2.6. Discussion

Using the brand crisis experienced by a multilateral European co-branding alliance as our research context, we study the importance of governance of alliance relationships in helping firms manage the chaos and challenges a brand crisis poses. Reasoning that firms need to be flexible in their strategic decisions to face the uncertainty of managing a common alliance and an individual brand during a brand crisis, we suggest that governance of alliance relationships can reduce the negative brand evaluations. Based on governance and behavioral theories, we suggested that the intensity of relationship between a firm and an alliance can be in the form of or a combination of information exchange, positive appraisal and economic investment (Granovetter 1973; Williamson 1975). We hypothesized how these three

dimension of governance impacts customer reputation of individual brands through having a bearing on the firm's flexibility of marketing strategies.

Our results indicate that the extent of information exchange help firms insulate themselves against negative effects of the brand crisis while positive appraisal and economic investment lead to a dilution in customer evaluations in the immediate wake of the crisis. In our post hoc analysis we also show that these effects only hold in the aftermath of crises and do not have any significant effect on customer evaluations before the crisis.

We believe that our research makes important theoretical contributions to the literature on brand crisis and inter-organizational relationship governance. First, we examine a brand crisis in a multilateral co-branding alliance context where the common alliance brand co-exists with the individual brands of participating firms. We argue that due to the unique inter-organizational context, the spillover effect of a crisis affecting the common brand depends on the governance of the alliance relationship. We show that how firms manage these relationships can insulate a firm or make a firm more vulnerable to the negative effects of a crisis.

We add to the governance literature by showing that a governance mechanism can be also effective in hedging against negative repercussions of a brand crisis. In addition, we provide evidence to the spillover effects of upstream governance mechanisms between a firm and the alliance to downward customer assessments. Our analysis captures a unique linkage between firm level relational strategies and customer perceptions in the wake of a crisis. Previous literature has recognized that a firm's relationship governance with its upstream supplier has performance implications for downstream customers (Kumar, Heide, and Wathne 2011; Wathne and Heide 2004) and a firm's relationship with its outsourcing provider has performance implications for firm's customers (Wuyts, Rindfleisch, and Citrin 2015). We offer a view that suggests that how a firm manage its relationships with the

alliance have greater payoffs and have implications that go beyond the inter-organizational level and have an impact on customers perceptions of individual brand reputation following a brand crisis.

Moreover, by shifting the focus of research on alliance performance in times of stability to times of change, we show that the relationship between governance and performance is more complex than a simple positive or negative relationship. We add to the governance literature that has discussed that a firm can operate more effectively by aligning a firm's ongoing governance decisions with its environment (Kim, McFarland, Kwon, Son, and Griffith 2011; Wathne and Heide 2004). We show that the governance dimensions that work under a brand crisis, during times of change and uncertainty, do not necessarily have an impact on brand reputation in times of stability. Therefore, we provide evidence on the changing role of governance mechanisms depending on the conditions firm encounters such as a brand crisis.

Finally, from a practical standpoint, we provide a partial answer to the important question practitioners ask as they struggle to cope with uncertainty in the business environment: "What capabilities do firms build to manage crises?" (Grewal and Tansuhaj 2001). Our findings shed a new light on the phenomenon of co-branding alliances and help managers to hedge against alliance risk by organizing their relationship with the alliance. According to our findings, managers should stress information exchange, which makes them more flexible to respond to brand crises, and should be wary about the rigidity enhancing effects of affective attachment or high levels of economic investment that makes them vulnerable to negative repercussions of crises. Thus, failing to be flexible to change their marketing strategies following a brand crisis is not advised for managers.

2.7. Limitations and Further Research

This study is a first step towards understanding the brand crisis in a multilateral co-branding alliance and the effectiveness of relationship governance methods to hedge against negative effects of these crises. We argue that the firms who have the higher flexibility to adapt their marketing strategies will be able to protect themselves against brand reputation dilution. However, we do not have information on the actual behavior of these managers in response to the crisis. A natural next step is to improve insights by observing the actions of participating firms in an alliance following a negative event.

In this study, we focus on a single alliance and our unique context may limit the generalizability of out findings in other marketing alliances. Our study can benefit from replication in other contexts. However, we believe that managerial decision making in co-marketing alliances, where the managers have two sets of expectations, might unfold along related lines, and the governance methods which effects flexibility of management might have similar implications in uncertain environments (Grewal and Tansuhaj 2001; Lee and Makhija 2009).

Chapter 3 - The Impact of Marketing Alliance Portfolios on Stock Return Risk

3.1. Introduction

With increasing uncertainty, complexity and heightened global competition in the business environment, hedging against shareholder risk has become a key concern, as it is critical to the performance and survival of the firm. In particular, managers and investors are concerned about shareholder risk, a key component of shareholder value (Grinblatt and Titman 1998). Shareholder risk boosts the cost of capital financing, and may thereby damage a firm's investment opportunities and its prospects on future financial returns (Srinivasan and Hanssens 2009). Marketing scholars have become increasingly interested in explaining shareholder risk as a key performance consequence. As seen in Table 6, mounting evidence links marketing investments such as brand equity, customer satisfaction, advertising, and R&D efforts with stock return risk (Bharadwaj, Tuli, and Bonfrer 2011; McAlister, Srinivasan and Kim 2007; Rego, Billett, and Morgan 2009).

In this study, we examine an alternative form of marketing investment and its consequences for shareholder risk: a firm's investments in marketing alliances. Marketing alliances are cooperative relationships between two or more firms in one or more aspects of marketing to gain access to new marketing resources such as brands, markets, and products (Swaminathan and Moorman 2009). Firms engage in marketing alliances with domestic or foreign partners, and even with rival firms on various aspects of marketing to promote and penetrate their goods. Microsoft entering into an alliance with Chinese Lenovo and Acer to promote a simplified version of Windows for the Asian market is an example of a marketing alliance (Fang et al. 2016). Marketing partnerships have important implications for risk because risk is often linked to demand uncertainty and marketing alliances provide access to external marketing resources to replace deteriorating internal resources and amass new

resources that firms use to generate and stabilize demand (Thomaz and Swaminathan 2015). To support this view, Table 7 summarizes the scant prior research in this domain. This research has shown that there is a link between a firm's marketing and product alliances and its risk profile (Mani and Luo 2015; Thomaz and Swaminathan 2015).

Interestingly, despite some attention has been given to the impact of embeddedness of a marketing alliance in the overall alliance network, prior literature has maintained a sole focus on the effects of individual marketing alliances. Yet firms engage in multiple marketing alliances with different partners simultaneously, forming portfolios of alliances. They engage in co-branding, joint marketing, sharing of distribution alliances with domestic, foreign partners, with rivals, buyers, or suppliers. For example, in our data we observe that in 2000 International Business Machines Corporation (IBM) had 69 and Hewlett-Packard had 44 marketing alliances on various aspects of marketing in their portfolio. While each alliance individually captures part of the overall picture, a firm's collection of marketing alliances reflects an emergent or deliberate alliance portfolio strategy and overall access to external marketing resources. Managing alliance portfolios rather than individual alliances in isolation may generate value beyond what is generated from individual alliances (Sarkar, Auklah, and Madhok 2009). Thus, it is important to explore how the collection of marketing partnerships, a market-based asset (Srivastava, Shervani, and Fahey 1998), can enhance a firm's ability to generate value.

Against this backdrop, we are taking a portfolio perspective in this study to explore the impact of marketing alliances on a firm's shareholder risk. Our premise is that for academic research to guide managers to develop an overall alliance strategy, it should account for the totality of alliance activity as reflected in the firm's marketing alliance portfolio. To the best of our knowledge, the literature does not offer any theoretical discussion, let alone empirical evidence, on the consequences of marketing alliance

portfolios. Our approach is in line with the developments in the business world where firms like Lufthansa and Siemens, which have established centers for alliance managers and appointed created titles like “director of alliances”, realize the need for better information in developing and configuring alliance portfolios (Hoffman 2005). Our approach is also broadly in line with the alliance literature that has advised a shift from an alliance perspective to a portfolio perspective to analyze performance implications of alliances (Cui and O’Connor 2012; Hoffmann 2007; Wuyts, Dutta, and Stremersch 2004).

We build on the governance theory and resource-based view of the firm to examine how to best compose a marketing alliance portfolio to promote stability and, thus, reduce shareholder risk. Two important strategic decisions managers make when building partnerships are: “with whom to work with?” and “what to work on?” (Tang, Fisher, and Qualls 2016). To explore these two strategic portfolio composition elements, we investigate portfolio composition with respect to partner type and alliance domain. We select the partner characteristics on the basis of inter-organizational governance theory and resource-based view. Governance theory has amply demonstrated that problems are bound to arise when working with competitors (Luo, Rindfleisch, and Tse 2007; Rindlfleisch and Moorman 2003) or with international partners (Cui and O’Connor 2012; Combs and Ketchen 2003). Resource -based view and operating efficiency arguments exhibit that the scope of an alliance activity can have important risk implications for firms (Koh and Venkatraman 1991; Tang, Fisher, and Qualls 2016). Thus, we focus on the role of level of competition, national dispersion, and domain relatedness to explain shareholder risk.

Both resource-based view and alliance literature have pointed out that firm size may explain the heterogeneity in benefits from alliance activity (Das, Sen, and Sengupta 1998; Mani 2016). Resource-constrained firms benefit more from gaining access to external resources by entering alliances (Mani 2016; Oviatt and McDougall 1994). However, they are

more vulnerable to partners' self-serving behavior, which can threaten the stability of partnerships and incur costs for the focal firm (Noteboom 2000). Acknowledging that alliance portfolio benefits may differ for small versus large firms, we further include the moderating role of a firm's resource endowments (firm size) in our conceptual framework.

We compose a unique sample by tracking the marketing alliance portfolios of 137 public U.S. manufacturing firms over a ten-year period. Our measure of performance is shareholder risk as reflected in both systematic and idiosyncratic risk. Using a random effects model that accounts for unobserved heterogeneity, we demonstrate that there is no uniform effect of marketing alliance portfolios on shareholder risk. The type of alliance partners and the nature of alliance domains that typify the alliance portfolio exert differential effects on risk. We find that overlap in terms of partners (active in the same industry, HQs in the same nation) as well as overlap in terms of alliance activities (in related rather than unrelated domains) decreases risk. In addition, these effects are moderated by firm size. For example, smaller firms benefit more from the risk reducing effect of level of competition while they suffer more from the risk enhancing effect of national dispersion.

This paper contributes to the literature in several ways. First, we explicitly study a firm's portfolio of marketing alliances and add to marketing alliance and alliance portfolio literature. To the best of our knowledge, this is the first study to consider marketing alliance portfolios as a standalone entity with its own set of managerial challenges and important performance implications. Not only has prior literature only recently begun to develop an understanding of the performance consequences of individual marketing alliances (i.e., Swaminathan and Moorman 2009), it has not offered any theoretical discussion or empirical evidence on the isolated effects of marketing alliance portfolios which limits the efforts to gain a better understanding of the value of marketing investments made in these partnerships (Srivastava et al.1998).

Second, we add to the research stream that is interested in the accountability of the marketing investments. Specifically, we add to the mounting evidence in marketing that links marketing investments to shareholder risk which provides an independent information from shareholder returns and is of definite interest to investors (Srinivasan and Hanssens 2009).

Third, we aim to extend the resource-based view of the firm by studying the effects of overlap in terms of partners as well as overlap in terms of alliance activities in the portfolio on the volatility of stock returns. Resource-based view has suggested that successful partnerships bring non-redundant resources (Jap 1999; Barney 2001). We examine the changing role of resource redundancy to reduce the volatility of stock returns, and hence, limit shareholder risk.

This research also has managerial relevance. The previous literature on marketing alliances has mostly considered the marketing alliance as a uniform, monolithic form of organization, ignoring heterogeneity in the nature of these alliances (see exception: Thomaz and Swaminathan 2015). However, such differences are a likely source of heterogeneity in terms of external resource endowments and in terms of partner control benefits and challenges. We identify actionable portfolio descriptors that capture the heterogeneity in external resource accesses and control ability and we show empirically that the nature of alliance partners and alliance domains exerts differential effects on risk. Thus, we recommend that a simple accumulation of marketing alliances does not guarantee lower risks, a firm should consider how they configure their alliances if their aim to reduce risks.

The remainder of the paper is organized as follows. We begin with presenting our theory and research hypotheses. We follow by describing the data, the research method, and empirical results. We conclude with a discussion of the implications of our findings along with limitations and future research ideas.

3.2. Theory and Hypotheses

Shareholder risk is the volatility of stock returns (Srinivasan and Hanssens 2009). Investors who buy assets in the stock market expect to earn returns over their investment time. Their actual returns over this holding period may be different from the expected returns, and this difference is the cause of stock return risk. Stock return risk entails a systematic and an idiosyncratic part. Systematic risk is a stock's sensitivity to overall market changes. Idiosyncratic risk represents volatility in stock returns, stemming from the firm's idiosyncratic actions. Overall, shareholder risk stems from various factors such as volatility at macroeconomic levels (e.g. interest rate shifts, exchange rates), at industry level (e.g. unstable industries), at project- or firm-level outcomes (e.g. management failure) and product-market competition (Srinivasan and Hanssens 2009). Taken together, the volatility of a stock return is reduced when a firm shields itself from the negative impact of market fluctuations, competition, and company-specific events, thus, promotes stability in operations (Srivastava et al. 1998).

We use two theoretical lenses to explain how a firm's marketing alliance portfolio can help firm reduce risk: the resource-based view and governance theory.

From a resource-based view perspective, alliances are means to access external marketing resources. A firm is a bundle of resources (Barney 1991) and it can gain competitive advantage by combining and recombining valuable resources (Teece, Pisano, and Shuen 1997). Resources derived though alliances form a unique resource base that a firm can utilize to create organizational advantage (Lavie 2006). The marketing resource base created through marketing partnerships can help the firm to protect itself from internal and external volatilities through scale advantages, secure resource access, and a stronger competitive position. We propose that a firm's ability to *leverage* alliance resources to decrease risk

depends on whether they can combine and utilize them. We expect the firms who can leverage resources can shield themselves against shocks at firm and market level.

From a governance theory perspective, strategic alliances are susceptible to partners' potential opportunistic behavior (Hamel, Doz, and Prahalad 1989). The unpredictable and volatile environment makes it harder to monitor partners (Willliamson 1975), and thus accentuates problems associated with opportunism (Williamson 1985). Because marketing alliances have direct implications on demand and have interdependencies with partners (Parkhe 1993), it is important to prevent opportunistic behavior in times of uncertainty to stabilize demand. The way a portfolio is constructed can act as a self-enforcement mechanism by safeguarding the firm against the hazards of partner opportunism. A portfolio can promote enhanced communication, and coordination thereby providing the firm the ability to monitor its partners' performance. These safeguarding benefits associated with an alliance portfolio in turn determine the degree to which alliance portfolios help promote stability in alliance and firm operations.

In summary, a firm can reduce the volatility in their stock return when it can leverage external marketing resources gained through alliances and safeguard the alliance against opportunistic behavior of their partners. Given these two theoretical lenses, we formalize our expectations for the effects of marketing alliance portfolio composition elements on shareholder risk in the hypotheses section below.

3.2.1. Hypotheses on Portfolio Composition and Firm Risk

3.2.1.1. Level of Competition

Level of competition describes the degree to which the focal firm collaborates with competitors, the firms located in the same industry, in its marketing alliance portfolio. Engaging in marketing alliances with competitors may be considered as a form of "virtual

consolidation" of resources and demand: the focal firm pools the marketing resources and capabilities of its alliance partners that are located within the same industry (Bucklin and Sengupta 1998). With increased virtual firm size, the firm can force buyers to accept higher prices and suppliers to accept lower prices, and gain economies of scale benefits in production and distribution (Chatterjee 1986; Das and Teng 2000), thus strengthen their market position. Doing business in the same market also provides familiarity with partners' resources and business activities, and facilitates communication with partners due to the similarity in experiences and knowledge bases. Familiarity and ease of communication foster ability to combine and assimilate resources and enhance market performance (Hamel et al. 1989). We expect that the stronger market position and ability to leverage partner resources enhance a firm's ability to respond to changing market conditions, and therefore become less susceptible to idiosyncratic changes and macro economic forces.

In addition, firms can secure resource access by maintaining multiple partners with similar resources. The dominant logic in prior research has suggested that having access to similar resources is creating redundancy and inefficiency while resource dissimilarity creates potential for synergy (i.e., Baum, Calabrese, Silverman 2000; Wuyts, Dutta and Stremersch 2004). However, there is research challenging this view suggesting that maintaining resource similarity in alliance portfolio can be beneficial when faced with uncertain markets (Cui 2013). While competition introduces redundancies to the portfolio, it can also enhance the stability of resources and help firms to insulate themselves from market risks. Collaborating with competitors may thus be beneficial for firms interested in ensuring the stability of operations and avoiding shocks leading to competitive reordering.

From a governance perspective, partnering with competitors, which share similar knowledge structures and capabilities (Rindfleisch and Moorman 2001), can increase the firm's ability to communicate with their partners and to diagnose and monitor its partners'

progress against each other continuously (Hamel et al. 1989; Luo et al. 2007). Thus, collaboration with competitors act as a self-enforcement mechanism. Interestingly, an opposing argument can be made. Competition may stimulate partners to copy the focal firm's marketing and technological capabilities (Wu, Balasubramanian, and Mahajan 2004), and thus, increase the tendency of alliance partners to behave opportunistically (Luo et al. 2007). Yet, we believe the alternative argument, that competition engenders opportunism, is less compelling when taking a portfolio perspective. In line with brokerage logic, portfolios that include a high proportion of competitors provide flexibility to play partners against each other by allocating resources to competing partners in case of an opportunistic act (Burt 1992; Lavie 2007). Since the partners are similar in terms of resources and capabilities, they can easily be substituted, which should reduce rather than enhance their motivation to act opportunistically.

Taken together, the scale and resource leverage benefits, internal benchmark advantage (ability to compare the progress of partners against each other), and flexibility to play partners against each other provide stronger market position, adaptability to change and stability in operations. . Thus:

H_1: The level of competition in a firm's marketing alliance portfolio decreases (a) systematic and (b) idiosyncratic risk.

3.2.1.2. National dispersion

National dispersion describes the extent to which a focal firm's alliance partners are distributed across countries. Engaging in alliances with firms from different countries bring differences in industry structures, economic, political, and cultural systems (Jiang, Tan, and Thursby 2010). These differences reduce the common grounds that are required to combine and utilize external resources. In addition, differences inhibit coordination effectiveness by reducing "the firm's ability to assess the knowledge characteristics, evaluate the condition of

the source, and develop linkages with the source" (Cui and O'Connor, p. 27); therefore they limit firm's ability to transfer and combine resources. The coordination difficulties would be even higher during instable times. Hence, when the national dispersion is high, we expect firms to become more susceptible to internal, external shocks and competitive moves, and consequently become more exposed to stock risk.

The contextual differences also impose communication barriers. It hinders the possibility to engage in frequent interpersonal communication, which could have helped firms to form strong ties and develop trust with partners (Ganesan, Malter and Rindfleisch 2005; Granovetter 1973). When there is less trust, partner firms are more likely to act opportunistically rather than to pursue mutually compatible interests. When communication barriers coupled with aforementioned coordination difficulties, the threat of opportunism will be higher. The focal firm needs to dedicate substantial resources to monitoring these partners to safeguard their investments in alliances. Supporting this view, geographic dispersion is one of the most frequently cited causes of high monitoring costs (Combs and Ketchen 2003). Therefore, high national dispersion hinders a portfolio's ability to act a self-enforcement mechanism.

In sum, a marketing alliance portfolio featuring a high degree of foreign partners reduces the firm's ability to combine and utilize external resources and leaves firm more vulnerable to opportunistic behavior. Thus the firm is exposed to negative effects of idiosyncratic changes or external shocks. Thus:

H_2: The level of national dispersion in a firm's marketing alliance portfolio increases (a) systematic and (b) idiosyncratic risk.

3.2.1.3. Ratio of Unrelated Alliances

The ratio of unrelated alliances refers to the extent to which a firm's marketing alliance portfolio covers businesses domains different from its own core business. This portfolio

descriptor captures the domains covered in the set of alliances within the portfolio. It is an indicator of activity scope, rather than partner scope. An alliance partner can be a competitor of the focal firm, in that are located in the same industry (e.g. hardware), while the domain of their alliance may differ from the focal firm's core business (e.g. they may ally on a new software project).

As a firm contracts alliances unrelated to its primary market or product offerings, it is required to assemble and integrate a wide range of information on the relevant parameters of new business domains such as consumer demands, competitive landscape, and other potential success factors. The introduction of other business domains that are increasingly diverse leads to difficulties in coordination for the focal firm (Williamson 1985). Thus, entering in a diverse set of domains through partnering cause difficulty in coordinating and assimilating resources across alliances. We expect this inefficiency in leveraging resources to leave the firm vulnerable to idiosyncratic changes, and competitive moves and external shocks in various business domains they operate in. However, an opposing argument can be made for the relationship between alliance domain and idiosyncratic risk. Firms diversify their operations to reduce idiosyncratic risk, which stems from firm-specific factors, by compensating a potential failure in one market with success in other markets (Hitt, Dacin, Levitas, Arregle, and Borza 2000). Firms can form marketing alliances to enter to new domains to diversify the risk in their own market (Thomaz and Swaminathan 2015), and hence reduce idiosyncratic risk.

From a governance perspective, the portfolios lead to difficulties in ensuring the stability of performance across alliance operations. The firm is threatened by increased costs and difficulty in evaluating the quality of performance in new domains (Minkler 1990). Since the firm does not have a wide range of information on relevant business performance

requirements, it will be difficulty and costly monitor its alliances' performances. These conditions diminish the self-enforcement effect of the portfolio.

We expect firms to be more susceptible to macroeconomic forces and become vulnerable to systematic risk due to the difficulty in utilizing resource and controlling partners. We also expect the problems associated with resource combination and control to overwhelm the potential diversification benefit and increase idiosyncratic risk. Thus:

H_3: The ratio of unrelated alliances in a firm's marketing alliance portfolio increases (a) systematic and (b) idiosyncratic risk.

3.2.2. Moderating Effect of Firm Size

Firms are heterogeneous in terms of their resource endowments and their ability to control partners' opportunistic behavior in an alliance. Therefore, firms should also be heterogeneous in terms of benefiting from external alliances to reduce risk. We propose firm size as a critical moderator of the effects hypothesized in H_1- H_3.

Access to external resources through alliance partnerships is more valuable for resource-constrained firms (Oviatt and McDougall 1994). Small firms lack the resources to invest in the competitive activities that are critical to gaining a foothold in the market and defend or enhance their market position (Hitt, Nixon, Clifford, and Coyne 1999). However, small firms are more vulnerable to opportunism because they have less financial resources to invest in safeguarding and less available documented information to evaluate and monitor their partners (Noteboom 2000). Thus, if a small firm can access to external marketing resources, gain a strong competitive position and utilize its portfolio of alliances as a self-enforcement mechanism to promote stability in operations, it can reduce firm risk.

In line with these general observations, we predict smaller firms to benefits more from partnering with competitors in its marketing alliance portfolio. Because the scale effects and effectiveness in combining and securing marketing resources can be more valuable for

smaller firms who have less bargaining power and resource endowments. Moreover, the control benefits provided by these portfolios can help a smaller firm to promote stability in alliance operations and reduce its vulnerability to idiosyncratic changes and external shocks. Thus:

H_4: The risk reducing effects of the level of competition in a marketing alliance portfolio are stronger for smaller firms.

We expect smaller firms to be more sensitive to the negative impact of national dispersion on shareholder risk. Higher level of national dispersion makes it difficult to transfer, combine and deploy resources across alliances due to differences in legal systems, culture, and industry structures. These difficulties are expected to be a greater concern for smaller firms because they are less likely to have experience and knowledge in managing partners from different backgrounds, whereas larger firms are more likely to have diversified businesses across domains and countries. So, smaller firms are expected to have more difficulty in managing the resources gained through nationally dispersed alliance partners. When it is combined with the aforementioned difficulty in exercising control in alliance management against opportunism, we expect smaller firms to be more vulnerable to risk compared to larger firms. Thus:

H_5: The risk enhancing effects of level of national dispersion in a marketing alliance portfolio are stronger for smaller firms.

A portfolio with diverse business domains is expected to increase the difficulty of combining and utilizing resources accruing from unrelated domains. However, resource-constrained firms benefit more from entering into new business through forming alliances to reduce the risk of doing it alone. While the difficulties in combining resources and

controlling partners may be even more pronounced for small firms, once external resources are successfully accessed small firms are more likely to reap more benefits of unrelated alliance activities as they have greater difficulty venturing into new domains on their own compared to larger firms. Hence, we expect small firms to become less susceptible to macroeconomic or idiosyncratic changes when they enter to new business domains through alliancing. Thus:

H_6: The risk enhancing effects of the ratio of unrelated alliances in a marketing alliance portfolio are weaker for smaller firms.

3.3. Method

3.3.1. Data

The sample consists of public U.S.-based firms in industrial, commercial, computer, electronic, transportation, measuring, and analyzing equipment industries (i.e., Standard Industrial Classification (SIC) codes 35, 36, 37, and 38). We drew the sample of firms from these industries because they have experienced dynamic and extensive alliance activity (Kandemir, Yaprak, and Cavusgil 2006) and they feature high proportion of publicly traded firms with complete data, thus diminish potential size-related biases that can be expected to arise when small firms are underrepresented (Lavie 2007). The unit of analysis in this study is the marketing alliance portfolio. For each firm, we constructed its marketing alliance portfolio for each year by collecting alliance information in the preceding five years. This study's timeframe spans the period from 1998 to 2011, with historical alliances tracked back to 1993 in order to incorporate information on active alliances that were formed before 1998. This five-year window follows the standard assumption regarding the duration of alliances (Stuart 2000; Lavie 2007). We include only firms that had formed more than one marketing alliance. Alliance records on its time of formation, activities involved, primary SIC code

along with partners' SIC codes and nations are compiled from the SDC Joint Ventures & Strategic Alliances (SDC) database.

We align COMPUSTAT and CRSP data with marketing alliance portfolio data for each firm for each year. Complete annual accounting information is collected from COMPUSTAT. Data for daily stock returns is obtained from the Center of Research on Stock Prices (CRSP) and details from the Fama and French four factors are obtained from Dr. Kenneth French's website. The integration of data across sources yields a sample of 137 publicly listed U.S.-based firms and 1232 firm-year observations.

3.3.2. Measures

Dependent variables. We use the four-factor Fama-French model to obtain the measures of systematic and idiosyncratic risk (Fama and French 1996). Following precedent in marketing research (e.g., Bharadwaj et al. 2011; Rego et al. 2009), for each firm year in our sample we collect daily stock returns for each fiscal year. For each firm i, we estimate Equation (1) for each trading day (t) corresponding to year T for which alliance and accounting data are aligned and stock returns are calculated. In this equation, β_{1iT} represents the systematic risk for firm i for year T, and the standard deviation of residuals obtained from this equation represents idiosyncratic risk (Bharadwaj et al. 2011).

(1) $R_{it}–R_{ft} = \beta_{0iT} + \beta_{1iT} (R_{mt}–R_{ft}) + \beta_{2iT}SMB_t + \beta_{3iT}HML_t + \beta_{4iT}UMD_t + \varepsilon_{it}$,

where R_{it} is the stock return of firm i at day t, R_{ft} is risk-free rate of return for day t calculated using U.S. Treasury bonds, R_{mt} is the average stock market rate of return for day t, SMB_t are the differential returns to portfolios comprising small versus large capitalization firms, HML_t are the differential returns to portfolios comprising high versus low market-to-book ratio firms, and UMD_t are the differential returns to portfolios comprising firms with high versus low prior returns.

Level of competition. We operationalized competition as the number of partners who share the same four digits of their SIC codes with the focal firm in a marketing alliance portfolio (Lavie and Miller 2008). Note that in order to obtain all portfolio variables, we collected information of each firm's alliances with a marketing function formed in the preceding five years.

National dispersion. National dispersion is measured as the number of unique nations of partner firms in the portfolio.

Ratio of unrelated alliances. We measure this variable at the level of the alliance rather than the partner. We count the number of alliances with agreed-upon alliance activities that are situated in an industry other than the focal firm at the four-digit SIC level, divided by portfolio size. We obtain the SIC codes for alliances from SDC database. We measure portfolio size as the total number of alliances formed in the preceding five years.

Firm Size. We measure size by the natural log of the firm's total assets reported in COMPUSTAT.

Control variables. Our controls included annually updated firm-, portfolio-, and industry-level variables that were lagged by one year relative to the dependent variables. Firm-level controls include various financial and accounting variables (leverage, liquidity, dividend pay, and market-to-book ratio), which are traditionally controlled for risk calculations since they are shown to be drivers of systematic and idiosyncratic risk (e.g., Luo and Bhattacharya 2009; Tuli and Bharadwaj 2009). We measure leverage as the ratio of long- and short-term debt to the book value of equity. We control for liquidity, which is measured by the ratio of the current assets to current liabilities. Dividend pay is measured, as dividend dummy that equals 1 if the firm pays dividends and 0 otherwise. Market-to-book ratio is the ratio of market value of equity to book value of equity, which captures the value of intangible assets. We also included firm diversification, measured as the number of industries a firm has

operations in, and R&D resource intensity, measured as the firm's R&D expenses to total assets.

Portfolio-level controls include marketing portfolio size, ratio of equity alliances, marketing alliances with an R&D component and ratio of multilateral alliances in our model. At the industry level, we control for competitive intensity, measured as the SIC four-digit concentration index. In addition, we use industry-dummies SIC two-digit level. Finally, to control for time-specific effects, we use year dummies. Only the ones with significant effects are included in the final model.

Table 8 presents measures and data sources for each variable used in the model. Table 9 presents the descriptive statistics and the correlations between the variables.

3.3.3. Model

We tested our hypotheses regarding the effects of various portfolio descriptors on systematic and idiosyncratic risk using Equation (2) and (3), respectively. We estimated two random effects models, one being systematic risk model and the other being idiosyncratic risk model, to account for intra-firm correlation as we have multiple observations per firm. This approach is consistent with recent studies that investigated the impact of alliance activity on stock return and stock risks (Mani 2016; Mani and Luo 2015; Tang, Fisher, and Qualls 2016). The models have the following structure:

$$(2)\ SR_{it} = \beta_{SR0} + \beta_{SR1}(Com)_{it} + \beta_{SR2}(ND)_{it} + \beta_{SR3}(Unr)_{it} + \beta_{SR4}(Com \times Size)_{it} + \beta_{SR5}(ND \times Size)_{it} + \beta_{SR6}(Unr \times Size)_{it} + \beta_{SR7}(Control\ (1))_{it-1} + \ldots + \beta_{SR18}(Control\ (12))_{it-1} + \beta_{SR19}(Industry\ dummies) + \beta_{SR20}(Time\ dummies) + \varepsilon_{SR}$$

$$(3)\ IR_{it} = \beta_{IR0} + \beta_{SR1}(Com)_{it} + \beta_{IR2}(Int)_{it} + \beta_{IR3}(Unr)_{it} + \beta_{IR4}(Com \times Size)_{it} + \beta_{IR5}(Int \times Size)_{it} + \beta_{IR6}(Unr \times Size)_{it} + \beta_{IR7}(Control\ (1))_{it-1} + \ldots + \beta_{IR18}(Control\ (12))_{it-1} + \beta_{IR19}(Industry\ dummies) + \beta_{IR20}(Time\ dummies) + \varepsilon_{IR}$$

where i = 1, 2, …, 137 firms and t = 1, 2, .., 14 years; SR_{it} is systematic risk, IR_{it} is idiosyncratic risk; Com is the level of competition, ND is level of national dispersion, and Unr is the ratio of unrelated alliances in the marketing alliance portfolio.

We use the lags of firm-level and industry-level control variables. The independent variables involved in interactions were mean-centered before calculating the interaction terms.

3.4. Results

Table 10 outlines the estimation results for the systematic and idiosyncratic risk models. The variance inflation factors are below the suggested cutoff value of 10 (the highest value is 4.92) (Mason and Perreault 1991). This result indicated that multicollinearity is not a significant concern in this model.

H1 posits that the level of competition in a marketing alliance portfolio decreases both systematic and idiosyncratic risk. The effects of competition on systematic risk (-.0007, $p <$ .01) and idiosyncratic risk (-.0013, $p < .05$) are negative and significant; thus. H1 is supported. This indicates that when the moderator variable, firm size, is at its mean level, level of competition has a risk reducing effect.

H2 states that national dispersion increases shareholder risk. Significant and positive effects of national dispersion on systematic risk (.0012, $p < .01$) and idiosyncratic risk (.0034, $p < .01$) provide support for H2.

H3 predicts that the ratio of unrelated alliances increases risk. Its effect on systematic risk (.0003, $p < .05$) and idiosyncratic risk (.0006, $p < .10$) are significant and positive in support of H3.

H4 indicates that firm size positively interacts with level of competition. The results show a positive and significant effect on systematic (.0005, $p < .05$); and idiosyncratic risk

(.0009, $p < .05$); thus H4 is supported. This indicates that the risk reducing effect of competition level is stronger for smaller firms.

H5 posits that firm size negatively interacts with national dispersion. The effects of firm size on systematic (-.0008, $p < .01$) and idiosyncratic risk (-.0016, $p < .01$) are negative and significant. The results imply that risk enhancing effect of national dispersion is stronger for smaller firms.

For H6, we predict that firm size positively interacts the relationship between the ratio of unrelated alliances in the portfolio and firm risk. The effects of firm size on systematic (.0004, $p < .05$) and idiosyncratic risk (.0022, $p < .01$) are both positive and significant, in support of H6. This result suggests that the risk enhancing effect unrelated alliance ratio is weaker for smaller firms.

The results of the financial control variables are largely in line with prior work in marketing and finance. For example, we find that leverage increases and idiosyncratic risk, supporting the view that a highly leveraged firm, which has more debt than equity, is more susceptible to internal and external shocks. The results show that dividend pay has a negative significant effect on idiosyncratic risk, in line with the argument that dividend payment is valued by investors and shareholders as a positive signal of firm stability. In addition, we find that market-to-book ratio decreases both systematic and idiosyncratic risk. Moreover, we find that ratio while multilateral alliances increase idiosyncratic risk and R&D emphasis in portfolios decreases this risk. Finally, we show that the size of marketing alliance portfolio d not have an effect on shareholder risk. This finding points out that the simple accumulation of alliances does not guarantee lower shareholder risk

3.5. Discussion

The ability to reduce firm shareholder risk by leveraging internal and external marketing resources remains vague for many firms (Srinivasan and Hanssens 2009). Our results provide evidence of how a firm can compose its portfolio of marketing partnerships to leverage external resources to achieve this goal. The results show that the simple accumulation of alliances in the portfolio does not have a role in reducing shareholder risk. Instead, firms should pay attention to their portfolio composition that has shown to have a role in reducing risk. Firms should consider the composition elements: "whom to work with?" and "what to work on?" We find that overlaps in terms of partners (active in the same industry, HQs in the same nation) as well as an overlap in terms of alliance activities (in related rather than unrelated domains) decrease risk. In addition, these effects are moderated by firm size. Smaller firms benefit more from partner overlap, while they find it more valuable to engage in new domains of business through alliances compared to larger firms.

From a theoretical perspective, this study complements marketing alliance and portfolio research and establishes the marketing alliance portfolio as a standalone entity with its own set of managerial challenges and important performance implications. While there is some attention given to effects of an individual marketing alliance contingent upon its position in a firm's overall alliance network (i.e., Swaminathan and Moorman 2009) and a firm's overall alliance portfolios (i.e., Cui 2013), prior research failed to yield a single study on the implications of a firm's portfolio of marketing alliances. We focus on the isolated effects of marketing alliance portfolios to gain a better understanding of the value investments made in this market-based asset (Srivastava et al. 1998).

Second, we add to the research stream that is interested in linking marketing actions to financial outcomes, specifically shareholder risk. Shareholder risk provides independent information from shareholder returns and is of definite interest to investors (Srinivasan and

Hanssens 2009). Echoing this sentiment, Moody's Global Credit Research states that strategic alliances have important impact in firm's risk profile (Moody's Investor Service 2006). We extend the research stream interested in the accountability of marketing investments by providing evidence on the role of alliance portfolio composition in reducing financial risk.

Third, we extend the resource-based view of the firm by challenging the dominant assertion that external partnerships contribute to superior performance by providing access to novel resources. Resource-based view has suggested that firm's ability to exploit and combine resources that are rare and non-redundant provides competitive advantage (Peteraf 1993; Teece et al. 1997). Prior research on alliance portfolios show that access to redundant resources is inefficient and limits a firm's growth prospects (Baum et al. 2000), innovativeness (Wuyts and Dutta 2014), and firm performance (Jiang et al. 2010). Our results, however, suggest that overlap in terms of partners as well as overlap in terms of alliance activities can be beneficial: they decrease the volatility of stock returns and shareholder risk. We add to the evidence pointing out the changing role of resource similarity in uncertain markets (Cui 2013), and suggest that alliance partner and activity overlap can provide benefit during instable times.

Finally, our findings posit that not all firms benefit equally from marketing alliance portfolios: these benefits are contingent on a firm's size. Research has suggested that access to external resources is more valuable for resource-constrained firms (Oviat and McDougall 1994). However, small firms are more susceptible to the opportunism, which threatens the stability of alliance operations (Noteboom 2000). Our findings indicate that firm size have a moderating effect between alliance composition and firm risk. Recourse-constrained firms find partnering with firms located in the same industry and same nation, and entering in new business domains through alliances.

From a managerial perspective, we show the importance of considering marketing partnerships jointly as a portfolio instead of as standalone partnerships. While a single marketing alliance with a competitor can induce risk, we find that a portfolio rich in competitors helps firm reduce financial risk. Thus, the alliance strategy and composition of alliance portfolio should provide basis for the individual alliance decisions (Hoffman 2005). In addition, insignificant effect of marketing portfolio size on risk pointed out the fact that the managers should not rely on simple accumulation of alliances. Instead, managers should effectively learn to optimize portfolio configurations. Moreover, our findings directly translate to actionable recommendations to help firms compose their portfolios. The conditions under which a firm can reduce their shareholder risk provide guidance for designing and managing alliance portfolios. Given the unusual benefits of partner and domain overlap in reducing risk, it is imperative that managers evaluate benefits and limits of their portfolios and consider the firm's overall strategy to create value either by increasing shareholder return or reducing shareholder risk.

3.6. Limitations and Further Research

Our study is not without limitations. While this study focuses on the effect of marketing alliance portfolio composition on stock risk, firms with high-risk profile may be more likely to engage in certain partnerships with certain partner types. In response to this concern, following the precedence in the alliance portfolio literature we lagged the independent variables in the model (Cui and O'Connor 2012; Lavie 2007). Portfolio composition is predetermined before the current period; thus, at a given time, a firm's alliance portfolio is predetermined through its past partnering activities, and it is modeled to influence the firm's stock risk in the next period. Hence, the lagged values of portfolio composition are expected

to be uncorrelated with current period error term (Cui and O'Connor 2012; Greene 2003). Even though this approach is in line with previous literature, future research can address this issue more thoroughly.

This study prompts more research questions. We argue that marketing partnerships can help firms manage their way out of intra-firm and external shocks. As a direct extension of this study, further research can investigate the effect marketing portfolio composition on firm performance during economic recession. How the firms change their partnering strategies during "normal" economic conditions versus economic downturns would be useful to understand how firms use partnering strategies in a response to uncertainty.

Our use of secondary data precluded consideration of organizational factors (i.e., absorptive capability, culture, strategic flexibility), which are critical in leveraging alliance partnerships. Further research could relate organizational factors to alliance composition elements to get a better understanding how firms utilize their alliance partnerships.

Finally, we only investigate the direct effects of portfolio elements and we do no find any interaction effects between these variables. However, we can expect some contingencies between partner types and domain activities in portfolios. Future work that explores interactions between portfolio composition elements would be useful.

Chapter 4 - Conclusion

This dissertation makes important contributions both to theory and managerial practice. From a theoretical perspective, this research develops and empirically tests two frameworks showing how to manage complex marketing partnerships. From a managerial perspective, this research derives implications that will allow managers to make more informed decisions when they are managing co-branding alliances in the wake of a brand crisis or building marketing alliance portfolios with the intention to reduce stock return risk, which are both valid concerns in todays rapidly changing business environment.

4.1. Major Findings and Implications

In Chapter 2, reasoning that firms need to be flexible in their strategic decisions to face the uncertainty of managing a common alliance and an individual brand during a brand crisis, we suggest that governance of alliance relationships can reduce the negative spillover of a brand crisis affecting the common brand. We find that alliance partners who maintain ties with the alliance characterized by frequent information exchange protects their individual brand reputations, while a vested interest in the alliance either via positive appraisal or via economic investments make the firm more vulnerable to negative brand evaluations.

We contribute to the brand crisis literature by examining the negative spillover from a common alliance brand to alliance member's individual brands in a multilateral co-branding alliance context. Next, we extend the governance literature by showing that how a firm coordinates its relationship with the alliance has a role in shielding dilution in brand reputation in the wake of a crisis. Finally, by shifting the focus of research on alliance performance in times of stability to times of change, we show that the relationship between governance and performance is complex and governance dimensions that work under a brand

crisis do not necessarily have an impact on brand reputation in times of stability.

In Chapter 3, we investigate the role of a firm's portfolio of marketing alliances in protecting the firm from shareholder risk, in response to the largely neglected role of marketing investments in determining risk. The results suggest that overlap in terms of partners (active in the same industry, HQs in the same nation) as well as overlap in terms of alliance activities (in related rather than unrelated domains) decreases risk and promote stability in operations. In addition, firms are heterogeneous in terms of benefiting from external alliances to reduce risk. Smaller firms benefit more from partner overlap, while they find it more valuable to engage in new domains of business through alliances compared to larger firms.

We establish the marketing alliance portfolio as a standalone entity with its own set of managerial challenges and important performance implications. In addition, we add to the mounting evidence linking marketing investments to shareholder risk by adding the role of investments made in external marketing partnerships. Finally, we extend the resource-based view of the firm by challenging the dominant logic that external partnerships contribute to superior performance by providing access to novel resources. Our results show overlap in terms of partners as well as overlap in terms of alliance activities can be beneficial to reduce shareholder risk.

4.2. Limitations and Directions for Future Research

Each chapter provides a limited view of complex marketing partnerships. In Essay 1, we examine one multilateral co-branding alliance, limiting the generalizability of the research, and we focus on three types of governance dimensions, disregarding the other potential governance strategies. In Essay 2, we only look at certain types of composition elements

disregarding other portfolio arrangement considerations. While our research is a step forward in explaining these complex partnerships, it allows for richer studies.

This dissertation prompts more research questions. An intriguing question is "How can firms shine in dark times through partnering?" We show that marketing partnerships can help firms manage their way out of internal and external shocks depending on the portfolio composition. So, we have a reason to believe alliance strategies to have a role in responding to uncertainty. However, we do not have empirical evidence on how partnerships can help firm transition away from economic recessions. Future research can investigate how firms adapt their alliance portfolios in response to recessions and whether these alliance strategies increase firm performance. Another important extension would be comparing the partnering strategies in contraction periods with economic expansion to see if these strategies are unique to economic recessions.

Another interesting issue is the role of economic downturns on partnering behavior in marketing context. From our data, I observe that alliance activity declines in years following economic recessions. It can be valuable to explore if this decrease is due to the decrease in overall marketing and R&D investments or due to the re-allocation of external marketing investments to internal marketing activities in the wake of a crisis.

Marketing scholars has pointed out that "marketing is a contextual discipline" (Sheth 2011, p.166) and the discussion of partnering strategies can benefit from expanding this research in emerging market settings. Although developed markets is the mainstay of world economy and research due to the availability of data, emerging markets, which are expected to contribute a vast majority of future growth (Prahalad and Hammond 2002), should be explored. I expect differences in partnership strategies in emerging economies due to their higher macro-level vulnerabilities. Additional scholarly efforts are needed to examine

alliancing in emerging economics as well as alliancing with firms located in emerging economies.

Appendix

Construct Measures (Scale Sources)

Bank reputation (customer reported)

"Reputation of [the bank]"

"Reputation of [the bank] as perceived by your friends"

Frequency of information sharing (adapted from Cannon and Homburg 2001)

"We regularly share information about new products and services that can benefit our customers."

"We regularly share information about new solutions that can benefit our bank."

"We regularly share information about how we can strengthen our market position."

Positive appraisal (adapted from Olsen and Johnson 2003)

"Think back to your experiences with Terra-Gruppen, overall how satisfied or dissatisfied are you with Terra-Gruppen?"

"Think about an ideal partner, how close to this ideal is Terra-Gruppen?"

"To what extent does Terra-Gruppen meet your expectations?"

"To what extent does Terra-Gruppen meet your expectations?"

"Based on your experiences with Terra-Gruppen, how attractive do you find Terra-Gruppen compared to other partners (e.g., other product/services providers)?"

Relationship tenure

"How long have you been banking with this bank (less than 1 year, end interview)?"

Terra reputation (customer reported)

"Reputation of Terra-Gruppen?"

"Reputation of Terra-Gruppen as perceived by your friends?"

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Table 1: Illustrative Research on Brand Crises Spillover

Study	Crisis Type	Affected Party	Predictors of Spill Over
Roehm and Tybout (2006)	Brand crisis	Other competing firms in the same product category	Similarity between firms
Barnett and King (2008)	Industry crisis	Other firms in industry	Industry self-regulatory institution
Lei, Dawar, and Lemmink (2008)	Product harm crisis	Focal brand and sub-brands	The structure of relatedness in a brand portfolio
Yu, Sengul, and Lester (2008)	Organizational crisis	Other firms in industry	Characteristics of the organization, others firms and industry
Jonsson, Grece, and Fujiware-Greve (2009)	Organizational crisis	Other “like” firms	Similarity and status

Table 2: Descriptive Statistics and Correlation Matrix

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1 Customer's Reputation Score for the Bank	8.43	0.63	1											
2 Year	2.53	1.11	**-0.09**	1										
3 GDP Growth	0.05	0.16	**0.10**	**-0.62**	1									
4 Customer Age	48.08	14.39	**0.25**	0.06	-0.04	1								
5 Customer Education	2.36	0.27	**-0.08**	**0.09**	**-0.10**	**-0.32**	1							
6 Customer's Relationship Tenure with the Bank	22.62	12.89	**-0.14**	0.01	-0.01	**0.21**	-0.03	1						
7 Customer's Reputation Score for Terra	6.50	1.65	**0.26**	**-0.50**	**0.69**	0.02	**-0.20**	**-0.04**	1					
8 Municipality (Dummy)	0.07	0.25	**-0.16**	0.00	0.00	0.00	0.03	0.00	**-0.11**	1				
9 Profit	12957.73	17137.08	**-0.09**	**0.20**	-0.02	0.01	-0.01	0.00	**0.09**	**0.04**	1			
10 Information Sharing with Terra	3.49	0.90	0.05	**-0.06**	**0.14**	-0.01	**-0.09**	0.01	**0.17**	-0.03	**0.09**	1		
11 Appraisal of Terra	4.50	0.79	-0.01	**0.10**	**-0.04**	0.00	**-0.02**	0.02	**0.06**	-0.01	**0.07**	**0.40**	1	
12 Equity Stake in Terra	-4.62	0.71	**-0.11**	**-0.04**	**0.05**	0.01	-0.02	-0.02	0.01	**0.08**	**0.38**	**0.19**	-0.02	1

Note: Bold values are significant at $p < .05$.

Table 3: The Effects of Relationship Intensity Dimensions on Customer Reputation in the Aftermath of a Brand Crisis

	Hypothesis (effect)	Coefficient
Main effects		
Information Sharing with Terra	+	0.067 **
Appraisal of Terra	-	-0.041 *
Equity Stake in Terra	-	-0.087 **
Controls		
Year		-0.065 **
GDP Growth		0.182 *
Customer Age		0.011 **
Customer Education		0.126 **
Customer's Relationship Tenure with the Bank		-0.010 **
Customer's Reputation Score for Terra		0.143 **
Municipality (Dummy)		-0.256 *
Profit		-0.001 **
Intercept		6.734 **

**p < .01, *p < .05, † p < .10.

Notes: One-tailed tests for hypothesized effects and two-tailed test for the control variables.

Table 4: Results for Post-Hoc Analysis

	Hypothesis (effect)	Four year Main Effects Model	Four year Model with Interactons	One Year Model (Pre-crisis Model)
		Coefficient	Coefficient	Coefficient
Main effects				
Information Sharing with Terra	+	0.047 **	0.029	0.008
Appraisal of Terra	-	-0.033 *	-0.002	0.032
Equity Stake in Terra	-	-0.055 *	-0.010	-0.061
Interactions				
Information Sharing with Terra x Post-Crisis Dummy			0.034 †	
Appraisal of Terra x Post-Crisis Dummy			-0.035 †	
Equity Stake in Terra x Post-Crisis Dummy			-0.080 *	
Controls				
Post-Crisis Dummy			0.270	
Year		0.010	-0.085 **	
GDP Growth		-0.330 **	0.197 *	
Customer Age		0.013 **	0.012 **	0.012 **
Customer Education		0.104 **	0.138 **	0.134 **
Customer's Relationship Tenure with the Bank		-0.010 **	-0.010 **	-0.080 **
Customer's Reputation Score for Terra		0.106 **	0.169 **	0.266 **
Municipality (Dummy)		-0.241 **	-0.197 *	-0.090
Profit		-0.001 **	-0.001 **	0.001
Intercept		6.903 **	6.266 **	5.008 **

**p < .01, *p < .05, † p < .10.

Notes: One-tailed tests for hypothesized effects and two-tailed test for the control variables.

Table 5: Robustness Checks

	Hypothesis (effect)	Base Model	Lower number of cohorts	Higher number of cohorts
		Coefficient	Coefficient	Coefficient
Main effects				
Information Sharing with Terra	+	0.067 **	0.077 **	0.081 **
Appraisal of Terra	-	-0.041 *	-0.063 *	-0.060 *
Equity Stake in Terra	-	-0.087 **	-0.085 **	-0.090 **
Controls				
Year		-0.065 **	-0.068 **	-0.079 **
GDP Growth		0.182 *	0.046	0.119 *
Customer Age		0.011 **	0.015 **	0.012 **
Customer Education		0.126 **	0.128 **	0.147 **
Customer's Relationship Tenure with the Bank		-0.010 **	-0.017 **	-0.010 **
Customer's Reputation Score for Terra		0.143 **	0.132 **	0.165 **
Municipality (Dummy)		-0.256 *	-0.232 *	-0.235 *
Profit		-0.001 **	-0.001 **	-0.001 **
Intercept		6.734 **	6.882 **	6.640 **
		Number of cohorts per bank: 5. Average number of customers in cohorts: 25.	Number of cohorts per bank: 10. Average number of customers in cohorts: 47.	Number of cohorts per bank: 20. Average number of customers in cohorts: 14.

**p < .01, *p < .05, † p < .10.

Notes: One-tailed tests for hypothesized effects and two-tailed test for the control variables.

Table 6: Illustrative Research on the Impact of Marketing on Risk

Study	Asset Metrics	Equity risk	Findings
McAlister, Srinivasan, and Kim (2007)	Advertising and research-and-development expenditures	Systematic risk	Significant negative effect on systematic risk.
Sorescu and Spanjol (2008)	Breakthrough and incremental innovations	Total risk	Significant positive effect of breakthrough innovation on total risk but no significant effect of incremental innovation.
Tuli and Bharadwaj (2009)	Customer satisfaction	Systematic and idiosyncratic risk	Significant negative effects on overall and downside systematic, and idiosyncratic risk
Rego, Billett, and Morgan (2009)	Customer-based brand equity	Systematic, idiosyncratic, and bankruptcy risk	Significant negative effects on all risk metrics.
Luo and Bhattacharya (2009)	Corporate social responsibility	Idiosyncratic risk	Significant negative effect on idiosyncratic risk.
Bharadwaj, Tuli, and Bonfrer (2011)	Brand quality	Systematic and idiosyncratic risk	Significant positive effect on systematic risk and negative effect on idiosyncratic risk
Osinga, Leeflang, Srinivasan, and Wieringa (2011)	Consumer advertising	Systematic and idiosyncratic risk	Significant negative effect on systematic but positive effect on idiosyncratic risk.

Table 7: Previous Literature on Marketing Alliances and Stock Risk

Study	Alliance Function	Alliance vs. Portfolio	Explanatory Variables	Dependent Variable
Das, Sen, and Sengupta (1998)	Marketing and R&D	Alliance	Profitability, firm size	Total risk
Mani (2016)	Product	Alliance activity in the last year	Scale vs. link alliances, firm size	Idiosyncratic risk
Mani and Luo (2015)	Product	Alliance activity in the last year	Network density, and closeness centrality	Systematic and idiosyncratic risk
Thomaz and Swaminathan (2015)	Marketing	Alliance	Repeated tie, own and partner network density	Systematic and idiosyncratic risk

Table 8: Variables and Measures

Variable	Measures	Data source
Systematic risk	β_{1i} obtained from Equation for each firm i year t: (1) $(R_{it}-R_{rft})= \beta_{0i} + \beta_{1i}(R_{mt}-R_{rft}) + \beta_{2i}SMB_t + \beta_{3i}HML_t + \beta_{4i}UMD_t + \varepsilon_{it}$ R_{it}: the stock return for firm i at time t; R_{rft}: the risk-free rate of return at time t; R_{mt}: the average market rate of return in period t; $R_{mt} - R_{rft}$: Market risk factor; SMB_t: Size factor; HML_t: Value factor; UMD_t: Momentum factor.	CRSP
Idiosyncratic risk	Variance of daily firm residual ε_{id}, obtained from Equation (1) for each firm i year t.	CRSP
Level of competition	Number of partners who share same four digits of their SIC codes with the focal firm.	SDC Platinum
National dispersion	Number of unique nations of partner firms in the portfolio.	SDC Platinum
Ratio of unrelated alliances	Number of alliances that are situated in an industry other than the focal firm at four-digit SIC level, divided by portfolio size	SDC Platinum
Firm size	The logged value of total assets of a firm.	COMPUSTAT
Leverage	The ratio of long-term debt to total assets.	COMPUSTAT
Liquidity	The ratio of current assets to current liabilities.	COMPUSTAT
Dividend pay	Dividend dummy that equals 1 if the firms pay dividends and 0 if otherwise.	COMPUSTAT
Market-to-book ratio	The ratio of market value of equity to book value of equity.	COMPUSTAT
Firm diversification	Number of industries a firm has operations in.	COMPUSTAT
R&D intensity	The firm's research and development expenses to total assets.	COMPUSTAT
Portfolio size	Number of alliances in the focal firm's portfolio.	SDC Platinum
Ratio of joint ventures	Number of equity alliances, divided by portfolio size.	SDC Platinum
Alliances with R&D function	Number of alliances with R&D function, divided by portfolio size.	SDC Platinum
Ratio of multilateral alliances	Number of multilateral alliances, divided by portfolio size.	SDC Platinum
Competitive intensity	The SIC four-digit concentration index of firm revenues.	COMPUSTAT

Table 9: Descriptive Statistics and Correlation Matrix

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Systematic Risk	0.010	0.005	1																
2 Idiosyncratic Risk	0.030	0.019	0.033	1															
3 Level of Competition	0.013	1.015	-0.047	-0.020	1														
4 National Dispersion	0.012	1.046	0.024	**-0.093**	**0.526**	1													
5 Ratio of Unrelated All.	0.011	0.970	**-0.066**	-0.012	**-0.073**	0.023	1												
6 Firm Size	0.014	0.985	**0.206**	**-0.555**	**0.174**	**0.388**	-0.034	1											
7 Leverage	0.391	0.205	**0.072**	-0.008	**0.116**	**0.099**	-0.023	**0.308**	1										
8 Liquidity	0.322	0.137	**-0.069**	**0.195**	**0.114**	0.012	0.047	**-0.240**	-0.038	1									
9 Dividend pay	0.347	0.476	**0.067**	**-0.360**	**0.088**	**0.249**	**-0.068**	**0.510**	**0.229**	**-0.199**	1								
10 Market-to-book ratio	0.116	4.954	**-0.103**	-0.039	-0.001	-0.004	0.029	-0.060	-0.022	0.089	-0.031	1							
11 Firm Diversification	1.570	1.469	**0.072**	**-0.234**	0.046	**0.323**	**0.064**	**0.495**	**0.253**	**-0.105**	**0.424**	-0.002	1						
12 R&D Intensity	0.089	0.103	-0.010	**0.290**	0.053	0.013	0.039	**-0.306**	**-0.139**	**0.092**	**-0.245**	-0.016	**-0.218**	1					
13 Portfolio Size	4.240	9.212	-0.057	**-0.099**	**0.705**	**0.790**	0.030	**0.305**	**0.103**	0.054	**0.204**	-0.007	**0.219**	0.000	1				
14 Ratio of JV Alliances	0.088	0.220	**0.101**	0.028	**0.079**	**0.115**	**-0.213**	0.044	**0.115**	**-0.074**	**0.185**	-0.031	**0.111**	**-0.101**	0.011	1			
15 Ratio of All. w. R&D	0.004	0.994	0.028	**0.067**	**0.073**	**0.054**	-0.014	**-0.123**	**-0.086**	-0.053	-0.046	-0.017	**-0.095**	**0.065**	**0.053**	**0.107**	1		
16 Ratio of Multilateral All.	0.056	0.163	-0.049	0.048	**0.134**	**0.196**	**0.051**	**0.121**	0.062	-0.058	**0.124**	0.008	**0.156**	**-0.068**	**0.107**	**0.064**	0.052	1	
17 Competitive Intensity	0.320	0.228	-0.115	**-0.062**	**-0.128**	-0.010	**0.175**	**0.067**	**0.182**	**0.098**	0.012	**0.065**	**0.167**	**-0.163**	-0.001	**-0.090**	**-0.214**	0.003	1

Note: Bold values are significant at $p < .05$.

Table 10: Effects of Marketing Alliance Portfolio Composition on Systematic and Idiosyncratic Risk

	Hypothesis (effect)	Systematic Risk Model Coefficient (in %)	Idiosyncratic Risk Model Coefficient (in %)
Main effects			
Level of Competition	H_1 (-)	-0.07 **	-0.13 *
National Dispersion	H_2 (+)	0.12 **	0.34 **
Ratio of Unrelated Alliances	H_3 (+)	0.03 *	0.06 †
Interaction effects			
Level of Competition x Firm Size	H_4 (+)	0.05 **	0.09 *
National Dispersion x Firm Size	H_5 (-)	-0.08 **	-0.16 **
Ratio of Unrelated Alliances x Firm Size	H_6 (+)	0.04 *	0.22 **
Controls			
Firm Size		-0.13 **	-1.39 **
Leverage		0.17	1.54 **
Liquidity		-0.01	0.29
Dividend pay		-0.02	-0.35 **
Market-to-book ratio		-0.02 **	-0.06 **
Firm Diversification		-0.01	-0.02
R&D Intensity		-0.01	0.44
Marketing Portfolio Size		-0.01 *	-0.01
Ratio of Joint Venture Alliances		0.07	-0.11
Ratio of Alliances with R&D Component		0.01	-0.12 **
Ratio of Multilateral Alliances		-0.15	1.23 **
Competitive intensity		-0.08	-0.38
Intercept		1.20 **	2.05 **

**p < .01, *p < .05, † p < .10.
Notes: One-tailed tests for hypothesized effects and two-tailed test for the control variables. Standardized coefficients are reported for the independent variables involving interactions.