CHAPTER 3

ANTECEDENTS TO VALUE CREATION AND VALUE APPROPRIATION OUTCOMES OF STRATEGIC ALLIANCES

The Moderating Role of Governance Mode

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ABSTRACT

Research interest in the value derived from alliances has been expressed through investigation of multiple perspectives of the outcomes of alliances using terminologies such as performance, success, termination, effectiveness, strategic goal fulfillment, and achievement of partners' objectives. The present chapter considers the antecedents to value creation and appropriation and the moderating role of governance configuration of the alliances in the antecedents-outcomes relationship. To do so, it adopts the property rights theory, which is considered to extend transaction cost economics and

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resource-based view. According to our proposed model, value creation of alliances depends on a number of contingency factors related to alliance's history and orientation as well as partners' relatedness. Value appropriation of alliances also depends upon partners' relatedness, but it is only affected by other factors, such as firm's bargaining power and absorptive capacity. Through the proposed model, we argue that the choice of appropriate governance configuration moderates (strengthens or weakens) the effect of the above contingency factors on value creation and appropriation. In addition, we support that value creation affects value appropriation, and vice versa.

INTRODUCTION

Alliances can create value in different ways depending on the growth strategy that they serve and factors such as past relationships and relatedness of the partners involved. Different alliance content and contextual factors naturally affect the firms' individual expectations for value creation and capture, which in turn affect the ways in which alliances should be designed and managed. Thus, a first step in designing a strategic alliance is to identify the underlying value creation logic (Doz & Hamel, 1998) and the partners' strategic motives in forming the alliance (Tsang, 1998). Prior alliance research has assessed value creation in alliances in several ways. The most common measures, sourced from the literature of alliance performance and success, include alliance duration, stability, and termination as well as assessment of partners' ongoing relationship and fit.

Partners do not always extract commensurately equal value from an alliance (Gulati & Wang, 2003). As prior research suggests, there are many cases in which one partner may race to learn the other's skills, while the other has no such intentions. As a result, one partner may acquire greater value from the alliance than its partner. Recently, there is an ever-increasing research interest in understanding why two firms experience differential wealth gains when they form an alliance (Adegbesan & Higgins, 2010; Gulati & Wang, 2003; Kumar, 2010).

A variety of measures has been suggested for measuring the ability of firms to capture value from alliances. The typical value capture measures comprise financial indicators including firms' performance and include firm's profitability, net income, growth of sales, return on investment or return on assets, and stock market gains. In addition to financial data, a set of subjective measures has been used, such as the managers' satisfaction with the outcome of the alliance and the firms' ability to meet its strategic objectives (Anand & Khanna, 2000).

Several researchers have tried to make sense out of the breadth of existing performance measures by arguing that a measure's appropriateness varies with the context or depend on the conceptual frameworks that catego-

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rize different perspectives of performance (Olk, 2006). Nevertheless, only a few studies have clearly distinguished between the value creation (VC) and the value appropriation (VA) outcomes. Although several researchers have empirically assessed the comparability of select measures, research studies examining how VC and VA outcomes are differentiated on the basis of the alliance's governance mode are missing.

While there are many empirical studies having investigated the alliance governance and alliance performance issues, very few have explored their interconnection. Most of the existing empirical works have drawn on transaction cost principles, the principal theoretical perspective of the alliance governance literature, in order to explain the differential impact of governance mode on performance (Leiblein, 2003). Specifically, these studies examine whether governance modes that deviate from transaction cost economics principles lead to poorer performance, what is called the "misalignment hypothesis" (Yvrande-Billon & Saussier, 2005). Sampson (2004), in her study of R&D alliances in the telecommunication industry, differentiates the performance effect of choosing an equity joint venture rather than a pooling contract and the consequence of making the reverse mistake. Her results indicate that innovative performance is affected most by selection of governance that imposes excessive bureaucracy (equity alliances) rather than governance that allows excessive opportunism hazards (nonequity alliances). Using data on alliances in the German telecommunications industry, Hoetker and Mellewigt (2009) test the relationship between alliance content, the choice of governance mechanisms, and the performance of the alliance. They conclude that the optimal configuration of formal and relational governance mechanisms depends on the assets involved in an alliance, with formal mechanisms best-suited to property-based assets and relational governance best-suited to knowledge-based assets. Taken together, these studies suggest that future research would benefit from the definition of a model appropriate to assess either alliance or firm performance on the basis of alternative alliance governance modes.

In this chapter, our aim is to address this gap by providing a governance-moderating model of value creation and value appropriation. The model includes three types of relationships, each of which correspond to a different research question. First, we investigate the direct effects of several contingency factors, sourced from alliance literature, on a set of VC and VA outcomes, based on literature of organizational performance. Then we examine the moderating role of governance in each of the above effects, thus identifying a significant parameter indirectly affecting both value creation and value appropriation potential. In doing so, we wish to shed light on how equity alliances (joint ventures, minority investments) differ from nonequity alliances (contractual agreements) in their impact on value creation and value appropriation outcomes. Finally, we argue in favor of a

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bidirectional relationship between value creation and appropriation, or between common and private benefits accrued by an alliance. While these two concepts are commonly investigated, their relationship remains blurred. The ultimate goal of this research stream is to propose a model able to predict the value outcomes of alternative governance configurations ex ante, thus enabling firms to improve their decision making on the design and structure of their alliances. Thus, the governance literature constitutes the prime research area to which our investigations contribute.

The next section provides a comprehensive review of the alliance governance literature and presents the main findings of empirical studies regarding the prime determinants of alliance's governance mode. The third section of this chapter reviews the literature on value creation and value appropriation and ends by categorizing the associated performance outcomes. The section that follows introduces the proposed governance-moderating model of value creation and value appropriation. The chapter concludes by discussing the implications of this model and suggestions for further research.

THE ALLIANCE GOVERNANCE CHOICE

The term "governance" has been broadly defined as a "mode of organizing transactions" (Williamson & Ouchi, 1981). Stated differently, alliance governance defines how an alliance is managed, how it is organized and regulated by agreements and processes, and how the partners control and influence its evolution and performance over time (Doz & Hamel, 1998). Several theories have been proposed to explain the formation and governance of STAs including, among others, the transaction cost economics theory, the resource-based view of the firm, the real options theory, and the property rights theory. Each of these provides a different perspective on why alliances occur and how firms choose to structure their alliance.

Alliance Governance Modes

Most studies of governance have been based on the dichotomy of equity versus nonequity alliances (Pangarkar & Klein, 2001; Pateli & Lioukas, 2011). Whereas equity alliances include joint ventures and minority investments, nonequity alliances refer to all other contractual arrangements that do not involve equity exchange. Equity alliances are seen as quasi-hierarchies, since they rely more on hierarchical governance mechanisms, while nonequity alliances are seen as quasi-markets, since they rely more on arm's-length market transactions.

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Alliance governance modes are mainly discerned by their level of integration. Nevertheless, they also differ with respect to the set of mechanisms that they employ for coordinating and safeguarding exchanges among the collaborating parties. The mechanisms rule how the alliance parties integrate their contributions while ensuring equity, resolving conflicts, and mitigating opportunism. The following paragraphs discuss the primary features of each of the three above-defined governance modes, while Table 3.1 provides a summarized discrimination of them with regard to a number of governance dimensions (i.e., integration, command structure and authority, conflict resolution mechanism).

By forming a joint venture, partners agree to create a new entity that is owned jointly. The partners of joint venture are highly integrated, while

TABLE 3.1 Discrimination of Governance Modes

	Governance Modes		
Dimensions	**Joint ventures**	**Minority investment**	**Contract-based agreements**
Organizational Structure	Joint entity	Networked entities	Distinct corporate entities
Hierarchical Continuum	Quasi-hierarchy	Quasi-hierarchy (but less than JV)	Quasi-market
Integration	High	Medium	Low
Command Structure and Authority	Independent command structure and legitimate authority system	Via a joint board of directors	Ongoing activities jointly coordinated and decisions made ad hoc
Shared Ownership	Shared ownership of all assets	Each partner has minority equity in the other	Property rights legally specified
Control Over Resources and Outcomes	Residual control of the alliance's resources and outcomes	Mutual but shared control over the resources and outcomes	Agreement on their control rights over resources and outcomes
Scope of Alliance Activities	Wide	Limited (depending on the equity level)	Limited and specified a priori
Monitoring of Alliance Activities	High through joint managerial control	High through shared board membership	Low (legal contracts)
Incentive Systems	Concern about the value of the joint venture's equity	Partners' concern for the value of their equity	Few if any official mechanisms
Mechanisms for Dispute Resolution	By fiat	Through board member intervention	Reliance on contracts

Source: Adapted from Pateli & Lioukas, 2011

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each of them contributes its own relative resources and knowledge to produce mutual benefits. The partners keep shared ownership of all corporate assets, while the joint venture keeps the residual control over the alliance's resources and outcomes. Compared with the other governance modes, joint ventures are more effective in transferring tacit knowledge.

Minority investments are partnerships in which firms agree to share equity with each other without creating any new entity, thus the partners are considered to be networked. The partners keep mutual but shared control over the resources contributed to the alliance as well as the alliance's outcomes. They are mostly preferred by large firms in order to acquire access to promising new technology or exceptional knowledge of smaller partners.

Finally, contract-based agreements involve legal contracts signed by partners on the production and transfer of their resources. Compared to equity alliances, contractual agreements are featured by low integration between partners. Partners *a priori* agree upon their control rights over the alliance's outcomes. Ongoing activities are jointly coordinated and decisions are made ad hoc. This mode may be preferred over joint ventures and minority investments due to its increased level of flexibility.

Contingency Factors of the Alliance Governance Choice

Most empirical studies on alliance governance ground their arguments on transaction cost economics (TCE), which propose that choosing an appropriate alliance governance structure is an important mechanism that firms employ to protect themselves from partners' opportunistic behavior. According to them, equity forms of alliances are preferred in cases where there is a need for more protection than efficiency in partners' transactions. Based on empirical results, these are alliances that involve more than two partners (Colombo, 2003; Oxley & Sampson, 2004) or partners of different countries (Gulati & Singh, 1998; Teng & Das, 2008), include exchange of relation specific assets (Chen & Chen, 2003), or are formed under conditions of high partner behavioral uncertainty (Chen & Chen, 2003). Instead, nonequity alliances are preferred in industries featured by high R&D intensity (Hagedoorn & Narula, 1996; Osborn & Baughn, 1990).

Additional considerations from the resource-based view (RBV) and knowledge-based view (KBV) support governance forms that maintain a balance between allowing sufficiently open resource/knowledge/technology exchange to achieve alliance objectives, while controlling exchange flows to avoid unintended leakage of valuable resources/knowledge/technology (Colombo, 2003; Oxley & Sampson, 2004). Thus, empirical studies show that firms choose a more hierarchical governance mode (i.e., joint venture) when partner strategic interdependence is expected to be high

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(Gulati & Singh, 1998), alliance scope (range of activities involved in the alliance) is broad and involves a technology component (Gulati & Singh, 1998) or joint R&D activities (Colombo, 2003; Osborn & Baughn, 1990; Pangarkar & Klein, 2001). Instead, nonequity alliances are favored in cases where partners have similar capabilities (Colombo, 2003), and complementary resources (Chen & Chen, 2003) and substantial competitive overlap in either the product or geographical market level (Oxley & Sampson, 2004).

Empirical studies supported by other theoretical perspectives, including social exchange theory, real options, and property rights theory, have either contradicted the above results or complemented them with a new set of governance antecedents. Grounded in social exchange theory, empirical work on alliance governance has shown that prior ties provide partners with more trust, thus rendering the use of more hierarchical modes less compelling (Gulati & Singh, 1998). Nevertheless, this finding is contradicted by researchers following either a competence-based perspective (Colombo, 2003) or a property rights perspective (Pateli & Lioukas, 2011). Using the real options perspective in combination with the transaction economics theory, Santoro and McGill (2005) have argued in favor of nonequity alliances in industries characterized by an increased level of technological uncertainty. Last, but not least, following a property rights approach, a recent empirical study on information technology alliances reveals that equity structures are preferred when partners keep a competitive relationship and follow a growth strategy, whereas nonequity structures are chosen when partners exhibit high resource complementarity (Pateli & Lioukas, 2011).

RESEARCH ON VALUE CREATION AND APPROPRIATION

Conceptualization of Value Creation and Value Appropriation

Value creation mechanisms enhance the firms' ability to generate value from their partners as they collectively pursue shared objectives and produce relational rents that cannot be generated independently by individual participants in alliances. In turn, value appropriation, also commonly termed value capture, mechanisms do not create new value but instead determine the relative share of relational rents that each partner can appropriate. In other words, partners competitively pursue self-interested objectives in an attempt to increase their share of appropriated relational rent (Lavie, 2007).

The disparity between value creation and value appropriation is akin to the distinction between common and private benefits or between "size of the pie" and "share of the pie." Thus, VC mechanisms are collective processes that generate common benefits and contribute to the development of

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the largest possible size of the pie, whereas value appropriation mechanisms determine the distribution of these common benefits to individual partners as well as the capacity of partners to extract the largest possible share of the pie that has been jointly created. Stated differently, value creation is a cooperative effort of partners to maximize the value of alliances by serving the strategic imperatives that incited its formation, while value capture is the individual effort of partners to capture the greatest possible share of the value created. The aforementioned distinction makes it obvious that value creation is related to the agreed-upon (by the involved parties) purpose of alliance formation, while value capture is related to the value outcomes of the alliance for each individual partner (Doz & Hamel, 1998). Nevertheless, the combination of VC and value appropriation mechanisms accounts for the contribution of the alliance to each partner's performance.

While there is increasing evidence that alliances are an important source of value creation and competitive advantage, we know less about how collaborating firms split the value (rents) generated as a result of the collaboration. Previous research on value of alliances has focused largely on measuring the benefits generated from the alliance on a collaborative level. But less attention has been paid to measuring the gains that are realized by individual firms in the alliance (Dyer, Singh, & Kale, 2008).

Measuring Value Creation and Value Appropriation

Prior alliance research has assessed value creation and value appropriation of alliances in several ways. Despite numerous studies and reviews (Olk, 2006), there remains no single view of how to measure them. Following, we present a review of relevant empirical studies. In order to improve organizing, and thus increase understanding of the associated performance measures, we have developed a two-dimensional framework. The first dimension of the framework concerns the "type of value" that is measured and includes either value creation or value appropriation. As said earlier, value creation measures benefits at the collaborative level, while value appropriation measures benefits at the individual level. The second dimension of the framework concerns the "multiplicity of the measures" employed and distinguishes between single measures (single variables) and multiple measures (constructs). The resulting framework is provided in Table 3.2. While only two dimensions are defined, in essence, a third dimension is also discussed; the distinction between objective and subjective evaluation measures.

According to Doz and Hamel (1998), researchers should employ a different set of measures for assessing the performance of alliances based on the value creation logic that alliances serve. Doz and Hamel group the value creation logic of alliances into three categories: (a) co-option, which

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TABLE 3.2 Value Creation, Value Appropriation, and Associated Performance Measures

	Value Creation (collaborative level)	Value Appropriation (individual level)
Single Measures	• Stability • Duration • Termination • Partners' Aggregated Market-to-Book Value • Partners' Aggregated ROI or ROA	• Individual Firm's Market-to-Book Value • Individual Firm's ROI or ROA • Firm Profitability/Productivity • Innovation Outcome (e.g., patents) • Managers' Satisfaction with Alliance Performance
Multiple Measures	• Partners' Compatibility/Fit (operational, cultural, strategic) • Ongoing Relationship (trust, conflict, opportunistic behavior) • Alliance Effectiveness • Innovation Performance (e.g., patents, new products/ services)	• Strategic Objectives' Achievement • Expected Alliance Value • Balanced Scorecard (financial, customer, process, growth)

motivates firms to join forces and thus collaborate for improving their competitive position in existing or new markets; (b) co-specialization, the synergistic value creation that results from combination of partners' resources, skills, and knowledge; and (c) learning, which considers alliances as an avenue for internalizing new skills and thus creating conditions for developing core competence.

VC outcomes are commonly sourced from literature on alliance performance and effectiveness. Existing literature has typically assessed the value creation potential of alliances by using an event-study methodology to examine stock market reactions to alliance announcements. Apart from the stock market reactions, a variety of other financial indicators, such as return on investment (ROI), return on assets (ROA), net income, and growth of sales, has dominated the alliance performance literature (Anand & Khanna, 2000; Combs & Ketchen, 1999; Gulati & Wang, 2003). These are usually calculated for each of the partners involved and then are summed to provide an aggregated measure. Apart from the above financial measures, a number of operational measures have also been employed to assess alliance performance; the most common of which include alliance's duration, termination, and stability (Lunnan & Haugland, 2008).

Although not a common practice, multiple measures have also been used to assess the value creation of alliances, such as partners' fit in terms of strategic, operational, and cultural compatibility (Futrell, Slugay, & Stephens, 2001) as well as assessment of partners' ongoing relationship in terms of trust, conflict resolution, and presence of opportunistic behavior (Olk,

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2006). Realizing the multifaceted nature of alliance value on the one hand, and wishing to connect it with the firm's strategic motives for forming alliances on the other, prior research has provided a number of multidimensional constructs measuring the alliance effectiveness. One such example includes the expected alliance value (EAV) construct, used to measure the degree of attaining milestone goals set by each firm at the outset of the strategic alliance (Pateli & Giaglis, 2007). The EAV items have been defined based on alliance formation motives, being specified by studies on strategic alliances formation (Hagedoorn, 1993; Tsang, 1998; Vilkamo & Keil, 2003). The construct includes seven dimensions, considered as strategic contributions of cooperative arrangements (Contractor & Lorange, 1988)—risk reduction, economies of scale and/or rationalization, complementary technologies and patents co-opting or blocking competition, overcoming government-mandated investment or trade barrier, initial international expansion, vertical quasi-integration—and are represented by 20 evaluation items. Another way to measure value creation, commonly used for R&D and technology alliances, involves the estimation of alliance's innovative performance in terms of patents counts and citations, new products/services counts, and R&D expenditures (Hagedoorn & Cloodt, 2003; Jiang & Li, 2009).

To measure value appropriation, researchers commonly turn to models of firm performance. The abovementioned financial measures (e.g., growth of sales, market-to-book value, return on asset) are assessed by each individual firm. Since accurate data on the above financial indicators are onerous, if not impossible, to collect, scholars have often looked at firms' expectation of whether and how much the firm will capture value from the alliance (Gulati & Wang, 2003). Thus, subjective measures of financial indicators in terms of predicted values are used instead of the objective measures. However, given the difficulties of forecasting the cash flows associated with a particular alliance with any precision, several researchers have opted for the subjective nonfinancial measurement of alliance performance. Accordingly, subjective measures (management evaluations) of performance are preferred when nonfinancial performance is involved or when objective financial measures are not available (Geringer & Hebert, 1991). Moreover, partners are usually reluctant to provide objective measures of performance, and thus subjective measures, such as managers' satisfaction with the outcome of the alliance and firms' ability to meet the strategic objectives set at the outset of the specific alliance, are often employed.

Last, the Balanced Scorecard method has been used as a value assessment tool able to link a firm's expected benefits to its strategic motives for entering an alliance. The value items of this tool are categorized into the four dimensions of the Balanced Scorecard (Kaplan & Norton, 1996), and thus may include financial value items, such as cost economization or maximization of return on assets; customer value items, such as delivery of prod-

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ucts/services at lower prices and improved after sales support; operational value items, such as access to new resources and capabilities and decrease of time-to-market; as well as growth value items, such as differentiation of products and services. Although the Balanced Scorecard has achieved widespread acceptance in the business world, in practice it has been criticized by scholars for requiring a large bulk of organizational information that is difficult to collect as well as for uncertainty as to how to combine these data into an overall performance (Meyer, 2002).

A GOVERNANCE-MODERATING MODEL OF VALUE CREATION AND APPROPRIATION

Examining the VC and VA outcomes under the moderating effect of the appropriate governance mode choice constitutes an underresearched field of the alliance literature. So far, research studies examining the relationship between alliance governance and performance has been oriented toward examining the cost of misaligned governance in terms of performance (Hoetker & Mellewigt, 2009; Sampson, 2004) as well as comparing the differences in performance between equity and nonequity alliances (Glaister & Buckley, 1998). In the last case, evaluation of performance has been limited to assessment of managers' satisfaction with the alliance. Taken together, these studies suggest that future research would benefit from the construction of integrated models of firms' governance choices and their performance implications. Hereinafter, we provide some first insight by investigating the way in which the choice of alliance governance mode affects the relationship between certain groups of antecedents, and VC and VA outcomes.

In order to extract contingency factors, we follow the property rights theory, which is considered an extension of the most widely used resource-based view and transaction cost economics theories in a number of ways (Foss & Foss, 2005). Based on this theory, a firm's ability to create and appropriate value from an exchange depends on the property rights that it holds as well as on the transaction costs associated with the definition, protection, and exchange of these rights.

To develop our model, we have reviewed research on governance (Chen & Chen, 2003; Colombo, 2003; Pateli & Lioukas, 2011; Sampson, 2004; Santoro & McGill, 2005) as well as research on value creation and appropriation (Adegbesan & Higgins, 2010; Kumar, 2010; Ritala & Hurmelinna-Laukkanen, 2009). This research has indicated several predictors of value creation and capture, the most important of which have been grouped under three categories: (a) alliance history and orientation, (b) partners' relatedness, and (c) firms' power. The governance mode has been handled as moderator, due to its ability to either reinforce or weaken the relationship between anteced-

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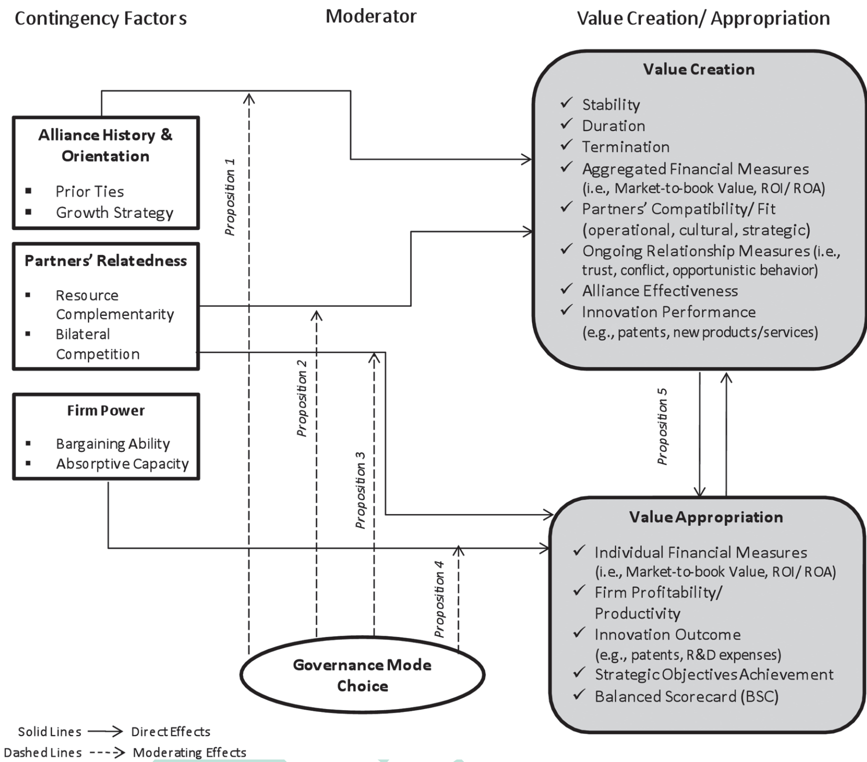

Figure 3.1 A governance-moderating model of value creation and appropriation.

ents and outcomes of value creation and value appropriation. Thus, we argue that the relation between the groups of antecedents factors and the VC and VA outcomes is not equally strong for both equity and nonequity alliances. Instead, in some cases, this relation may become stronger for joint ventures and weaker for contractual agreements, or vice versa.

As Figure 3.1 depicts, the model comprises three sections of relationships. The first section includes the direct effects of key contingency factors on the value creation and appropriation potential. The second section comprises the moderating role of the governance mode choice in the relationship between of the contingency factors and the VC and VA outcomes. The last section of the figure includes the bidirectional effect between the VC and VC outcomes.

Alliance History: Orientation and Value Creation

Alliance history is primarily referring to the number of prior ties between partners as well as the duration, the performance, and the gover-

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nance of these ties. Studying these factors enables managers to estimate the contractual hazards involved as well as the opportunities that may emerge, and thus make their decisions on the best governance mode for a prospective alliance. On the other hand, alliance orientation concerns the ultimate goal for which the alliance has been formed, and usually this concerns a growth strategy, such as expanding into new market segments or new geographical areas, or even producing new products/services.

Joint ventures imply a wide scope of joint activities between partners, which enable them to increase experience of each other and even enhance trust between them. In cases where firms have cooperated more than once in the past, their integration through a joint venture structure may increase trust and decrease probabilities for conflicts and opportunistic behavior, thus affecting positively the VC-related performance measures. Moreover, in cases where alliances are formed to serve a common partner's goal for growth—in terms of either expansion into new markets or diversification of existing products/services to target new market groups—a hierarchical governance mode may enhance opportunities for sharing resources and dividing control rights, thus increasing common benefits accruing for all partners involved. Instead, the choice of a contractual agreement may decrease the effect of alliance history and orientation on VC outcomes, since it turns the primary interest of partners from achieving growth to protecting themselves from partners' opportunistic behavior, and thus hinders the generation of value. The above arguments lead to the formulation of the following proposition:

> **Proposition 1:** *The greater the ability of the partner firms to learn about each other at the formation stage of the alliance, the more confident they will be about the relational risk and performance risk inherent in the venture.*

Partners' Relatedness and Value Creation

Partners' relatedness involves a comparison of partners in terms of several key features, such as competitive position, resource contribution, technological capabilities, and cultural compatibility. Hereinafter, we identify two features—resource complementarity and bilateral competition—that have been found in alliance literature (Chen & Chen, 2003; Hamel, Doz, & Prahalad, 1989; Hoffmann & Schlosser, 2001; Lavie, 2007; Ritala & Hurmelinna-Laukkanen, 2009) to affect critical alliance decisions, such as the selection of partners, the choice of governance mode, the size of partners' investment and their share over the total returns.

According to Lunnan and Haugland (2008), complementary resources positively affect short-term and long-term performance of alliances. How-

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ever, if partners are competitors, then resource complementarity between them is rather low, thus decreasing possibilities for alliance stability and success. Equity alliances tend to be more robust than nonequity alliances when the initial contributors retain a competitive relationship (Pateli & Lioukas, 2011). The reason is that by applying the structural mechanisms (internal control, authority, and dispute resolution) of dealing with multiple transaction costs, joint ventures can reduce information asymmetry or partners' opportunism. Based on the aforementioned reasoning, choosing a hierarchical governance mode may increase the positive effects of both resource complementarity and competitive relationship on joint value creation. The above ideas are summarized in the following proposition:

Proposition 2: *The alliance governance mode moderates the effect of partners' relatedness (resource complementarity, bilateral competition) on value creation.*

Partners' Relatedness and Value Appropriation

When there is some degree of resource complementarity between partners, then their partnership results in the generation of a surplus (Adegbesan & Higgins, 2010). The magnitude of the surplus created is proportional to the degree of complementarity between the partners, and the way it is split between them is indeterminate ex ante. On the other hand, collaborating with competitors has been found to negatively affect value appropriation potential (Ritala & Hurmelinna-Laukkanen, 2009).

In cases where partners are characterized by high resource complementarity, meaning that both partners contribute unique and highly valuable resources, contractual agreements will enable firms to exploit their partner's unique resources without spending time and resources on assuring their property rights. Legally reinforced agreements regarding their control rights over resources and outcomes will provide a safe environment for them to produce new services and products without the fear of losing control over either their valuable resources or the final outcomes of their alliances. Instead, joint ventures, while assuring residual control of the alliance's resources and outcomes, do not involve explicit definition of the share of these control rights between partners. Moreover, given the wide scope of joint activities between partners of joint ventures, there is a great possibility for valuable knowledge and resources to leak. In that case, if partners hold competitive positions, the alliance may create disproportional opportunities for value capture. Hence, the foregoing proposition is developed.

Proposition 3: *The alliance governance mode moderates the effect of partners' relatedness (resource complementarity, bilateral competition) on value appropriation.*

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Firm Power and Value Appropriation

The firm power within an alliance is usually denoted by its contributed resources as well as its ability to learn from its partners, and thus enhance its competences. Current literature on value distribution of alliances combines bargaining ability with absorptive capacity in order to determine value appropriation (Adegbesan & Higgins, 2010; Dyer et al., 2008; Kumar, 2010).

Joint ventures are considered as a rather safe environment for firms to exchange valuable resources as well as develop their learning and exploitation capabilities. Firms endogenously choose joint ventures over market contracts in situations where the knowledge bases to be combined are tacit and are not fully protected by patents and strong appropriability regimes (Kumar, 2010). Instead, given the incomplete nature of alliances' contracts, partners of contractual agreements become less interested in developing joint value and more keen on extracting private benefits for themselves. The above arguments suggest that joint ventures are likely to be inherently associated with greater potential for value appropriation than contractual agreements due to the incomplete nature of contracts and the opportunities for enhancing learning that they provide. We summarize the foregoing in the following proposition:

> **Proposition 4:** *The alliance governance mode moderates the effect of firm power (bargaining ability, absorptive capacity) on value appropriation.*

Value Creation and Value Appropriation

As described above, value creation potential is influenced by a range of factors, some of which are in common with value appropriation potential. All factors affecting value creation are associated with features of the alliance unit (i.e., strategic goal, prior ties) or features deriving from comparison of partners (i.e., complementarity, competition). On the other hand, the value appropriation potential concerns individual firms and thus is primarily determined by firm's power in negotiation as well as in exploitation of resources.

While there are several studies investigating the factors of value creation, and fewer but quite a few recent studies investigating the factors of value distribution, their relationship has not been explicitly defined. A relevant attempt has been made by Dyer et al. (2008) in developing a contingency framework providing alternative scenarios for the stability of alliances with regard to both private and common benefits derived for partners. Nevertheless, the relationship between common and private benefits is not investigated. Moreover, in a recent work, Adegbesan and Higgins (2010) identify

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that value appropriation is not independent of value creation, and so they urge future research toward capturing the dynamic relationship between these two value outcomes. Hereinafter, we argue that as value creation potential increases, the size of the common pie to share also increases, thus opening up opportunities for firms to capture more private benefits. Also, as firms become able to extract more private benefits from a given partnership, they become willing to invest more of their resources and competences in keeping it alive, which means profit and thus viability for all the partners involved, as long as possible. The above ideas lead to the formulation of the following proposition:

> **Proposition 5:** *Value creation has a direct effect on value appropriation, and vice versa.*

DISCUSSION AND FUTURE RESEARCH

The intent of this chapter is to increase our understanding regarding the relationship of key antecedents of value creation and appropriation, the choice of governance mechanisms, and the performance of the alliance. Current research and practice has provided a great diversity of alliance performance in terms of collective and private benefits generated for the alliance's partners. Nevertheless, less attention has been paid on the way in which the initial choice of governance mode influences the effects of several prime contingency factors on value creation and appropriation. Therefore, this chapter proposes a model that draws from the property rights theory to describe the moderating role of the governance mode in the relationship of several contingency factors of value with performance measures used to assess value generation and distribution.

Our model comprises a first attempt toward developing an integrated governance-moderating model of value creation and value appropriation. The model can be improved by empirically testing its proposed relationships and exploring its implications for the design as well as the management of alliances. An assessment of the entire model will provide important findings in the alliance governance literature, since it will reveal the value potential of equity and nonequity alliances. Moreover, it will contribute to the alliance performance literature by differentiating the group of VC outcomes from the group of VA outcomes and identifying the contingency factors that affect each group.

Testing the model raises a number of challenging issues. On the one hand, the contingency factors of the model comprises three different groups of factors, each of which includes a set of antecedents, conceptualized as either single variable or constructs. On the other hand, the value pa-

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rameters of our model are assessed with the use of several constructs, each of which includes multiple indicators. Each of these parameters provides insight into the diverse evaluation aspect of alliances. As such, all of them are considered as candidate-dependent variables. The moderating variable of the model includes the governance mode variable, which is usually conceptualized as either a binary variable (equity vs. nonequity alliance) or a categorical variable (joint venture, minority investment, contractual agreements). Thus, testing this model will likely require causal modeling. This method is well-suited for evaluating the effect of one or more independent variables on multiple dependent variables, conceptualized as constructs. Moreover, it enables the parallel testing of multiple moderating relationships. Nevertheless, the magnitude of the data-collection task means that either a large-sized sample will be used or the testing will be the result of more than one empirical study. It is possible that future research will end up splitting the model into sections and focusing on a subset of relationships each time.

To develop our model, we have primarily followed the considerations and arguments of property rights perspective. Therefore, the model does not explore how contingency factors, resulting from other theoretical perspectives such as TCE and RBV, may affect the VC and VA outcomes in a direct or indirect way. Future research that incorporates the influence of other antecedents (e.g., scope of activities, alliance management experience, and similarity of partners' technology capabilities) will enhance the power of the model and enable comparison of the power of each theoretical perspective in handling the difference between the performance outcomes of value creation and appropriation.

This model has implications for theories in the alliance governance field. The great majority of existing studies in the area have applied TCE in order to explain firms' decision making on the structure of their alliance by focusing on the cost of misaligning transaction with governance structures (e.g., Leiblein, Reuer, & Dalsace, 2002; Sampson, 2004; Yvrande-Billon & Saussier, 2005). Fewer but quite a few works integrate transaction cost perspective with resource-based perspective in order to balance the cost and resource considerations of various scholars in the alliance literature. As discussed above, this chapter applies a property rights perspective, which is considered to extend TCE and RBV, to explain the performance implication of diverse governance modes. When the model is tested and the relationships of the contingency factors, the governance mode, and the diverse value creation and appropriation outcomes become better known, the power of the property rights theory on the governance and performance field will be reinforced.

Finally, the propositions underlying our model could contribute to the alliance management research area. Alliances that last several years could

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change structure from time to time. Thus, a contractual agreement on developing new products/services may evolve into the establishment of a joint venture, which will commercially exploit the new products/services. The reverse transformation, evolving from an equity to a nonequity alliance, may be less frequent but not impossible. Thus, the model could capture changes in performance as the alliance evolves from one structure to another. To test such a model, longitudinal data for long-lasting alliances are required.

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