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CONFIGURATIONS OF ALLIANCE GOVERNANCE SYSTEMS****ABSTRACT**

Using the configurational approach, I synthesize alliance governance research by interpreting alliance governance systems as organizational form. I identify and analyze a set of design and contingency parameters and their interrelationships resulting in five configurations of alliance governance systems. These configurations are valuable for scholars in that they deepen our understanding of alliances along organization theoretical dimensions and expand the organization design literature to the field of interfirm alliances. For management practice, these configurations are valuable in that they can serve as diagnostic tools for alliance design.

JEL-Classification: L14, L24, U10.

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1 INTRODUCTION

Since the 1980s, interfirm alliances have become one of the most prominent instruments of corporate strategy and have received considerable research attention (for example, Child, Faulkner, and Tallman (2005); Contractor and Lorange (2002); Dussauge and Garrette (1999); Hennart (2006)). However, especially in the field of alliance governance, researchers have used alternative theoretical foundations to create a multitude of concepts and approaches, resulting in a vast number of studies with important, but partially contradictory, results (for example, Mellewigt, Madhok, and Weibel (2007)). For example, transaction cost-based studies such as that by Gulati and Singh (1998) emphasize the importance of hierarchical controls of equity-based alliances to counter high levels of behavioral uncertainty, but resource-based-view-oriented studies such as Das and Teng (2001a) suggest that in such situations, firms will choose less hierarchical alliance types.

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Furthermore, prior research uses the label of alliance governance structures to distinguish between alliance forms in terms of equity and non-equity arrangements, addressing when and why a separate entity might be used (Gulati (1998); Gulati and Singh (1998); Osborn and Baughn (1990); Oxley (1999)). Researchers have tried to explain the structure and effectiveness of alliances by focusing on simple types of cooperative agreements and by studying the influence of single situational factors on the preferability of these simple, generic structures. Although such contributions have added considerably to our understanding of the contingencies that affect well-known alliance forms, I suggest that there is a need to analyze the dependent variable, the alliance type or generic alliance governance structure, more deeply. Although this issue was identified by Grandori (1997) and Gulati and Singh (1998), as yet it has received only scarce attention (e.g., Albers and Zajac (2008); Contractor (2005)).

Following the configurational approach to organization design and strategy (Fiss (2007); Meyer, Tsui, and Hinings (1993); Miller (1986); Mintzberg (1979); Wolf (2000)), in this paper I address the alliance governance issue. I identify and assess a set of key design parameters, major contingency factors, and their interrelationships. The result of my analysis is that I propose five configurations of alliance governance systems that exhibit consistent patterns of design and contingency factors. These configurations balance the different requirements of context and their design elements and thus represent pure types. I use the configurational approach here because of its systemic, multidimensional nature, which seems to be especially relevant to the study of strategic management (Fiss (2007); Ketchen, Thomas, and Snow (1993); Short, Payne, and Ketchen (2008)). Furthermore, the configurational approach's synthesizing nature appears to be well suited and instructive for the as yet fragmented research on alliances and their governance.

The paper proceeds as follows: based on the interpretation of alliance governance systems as an organizational form, I identify and assess contingency factors that affect the design parameters of these organizations in section 2. In section 3 I derive and explain the features, conditions, and major issues of the Primus, Senate, Technocratic, Advocate, and Committee alliance governance system configurations. In section 4 I discuss further implications.

2 AN ALLIANCE-SPECIFIC GOVERNANCE MODEL

Strategic alliances are defined as institutionalized voluntary cooperation between two or more firms toward a common goal. Doz and Hamel (1998) define alliance governance as "... 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". Accordingly, in this paper I define alliance governance systems as the set of formal and informal arrangements used to manage, organize, and regulate an alliance. These systems have a unique structure and use mechanisms to coordinate, monitor, and influence the evolution of an alliance and its performance over time. The systems are the result of a conscious design process that is performed in order to meet the specified terms and conditions of an interorganizational agreement between the partner firms. The design domain of alliance governance systems exclusively focuses on interfirm relations. Therefore, alliance

governance systems are a unique organizational form, a specific type of organization, which in principle should be accessible for description and analysis through concepts and findings from traditional organization theory research (Grandori (1997)). However, these concepts and findings need to be adapted to allow for the consideration of the peculiarities of alliances (Albers and Zajac (2008)). These peculiarities are their second-order status and their self-governing features (Borys and Jemison (1989); Garrette and Dussauge (2000)).

Conceptually, alliance governance systems are second-order organizations that lack the feature of a unitary (corporate) actor (Borys and Jemison (1989)). Thus, alliance organizations differ from firm organizations in that the governed actors are not individuals, but firms (Theurl (2005)). Firms are the contracting parties of an alliance; they agree on cooperative relationships, the pooling of resources, and the exchange of goods and services. The partner firms join voluntarily and agree to relinquish certain freedoms, and to constrain parts of their activity under the regime of the closed alliance agreement. Therefore, alliances introduce an additional organizational domain. The first-order organizations of the partner firms, which are comprised of individuals (the firms' employees), are complemented by a second-order organization, the alliance governance system, which includes parts of each of the partner firms as members.

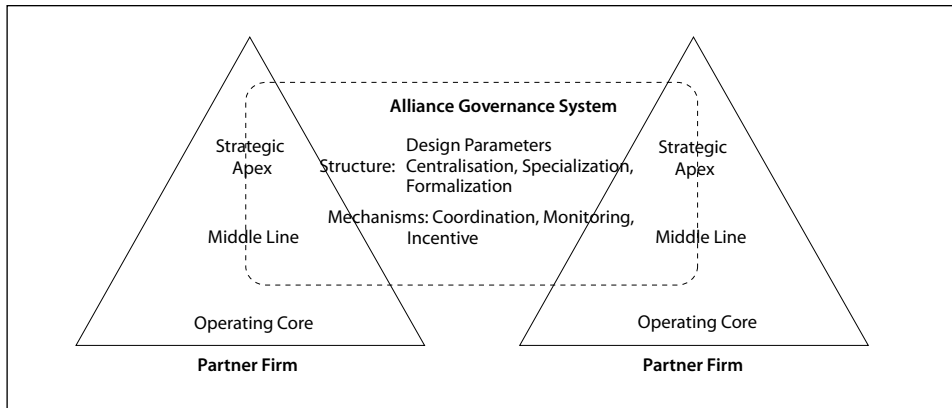
Even though the partnering firms forgo certain rights and resources, they do not give up their overall autonomy. Thus, bargaining plays a major role in alliances' decision-making processes (Garrette and Dussauge (2000)). The absence of a single top-level central authority that can align interests and resolve conflicts between the partners through its formal decision power, which is the capstone of hierarchies, is frequently seen as specific to alliances (e.g., Wildemann (1997)). The alliance partners have to agree on a decision-making mechanism for the alliance activities, although this mechanism can be altered and changed in the course of the alliance's lifecycle. The partners also usually maintain an exit option from the alliance. These aspects lead to the perception of alliances as mainly self-governed arrangements (Parkhe (1993); Reihlen (1999)). The firms that are part of the alliance are the governed, but at the same time they emerge as determining the alliance governance system and exercising influence through this governance system.

The analysis of alliance governance systems as self-governed, second-order organizations that of necessity involve parts of the partner firms' organizations requires a basic conceptual model of the member firms and the alliance organization (see *Figure 1*). For this analysis, I distinguish the strategic apex, the middle line, and the operating core of an organization (Mintzberg (1979)). Each organizational level is involved in a different manner in the alliance-related activities of the firm. For example, a firm's strategic apex usually plays a critical role in any alliance, because it articulates the firms' strategy. Thus, it is usually involved in setting up a strategic alliance, overseeing it, deciding on strategic issues for the alliance, adapting it, and dissolving it. In its role as part of the alliance organization, members of the firms' strategic apexes constitute the most senior body, the alliance governors' board that is part of any alliance. However, day-to-day operations are usually passed down the hierarchical chain to middle-line managers, who are either exclusively appointed for alliance management positions or who are serving in line positions in their organization and managing the alliance in addition to their regular tasks.

The value-adding processes the alliance is founded for are performed on the operational level, within the operational cores of the partner firms. It is here that the actual research, procurement, production, and other such operations are carried out.

I argue that the role and elaboration of these different levels, their specific arrangement, and the mechanisms used to achieve the joint performance of tasks involved in the alliance vary considerably according to a variety of contextual or contingency factors. Before I assess these contingency factors, I introduce the specific design parameters of alliance governance systems. These fall into two categories. Just as firms are seen as organizational systems with a fixed structural skeleton and mechanisms used to organize flows within this skeleton, alliance governance systems can be viewed as organizational systems that consist of a static formal framework, its *governance structure*, and dynamic components that bring or prevent change to the system or its elements (Bunge (1997)), the alliance *governance mechanisms*.

Figure 1: Alliance governance system model



2.1 DIMENSIONS OF ALLIANCE GOVERNANCE STRUCTURE

The alliance governance structure is the static formal framework for the activities that are pursued by at least two cooperating firms, and shows how the alliance is managed, organized, and regulated. The alliance governance structure includes the formally fixed rules and regulations for the governance of an alliance. The alliance governance system's structure is conceived along the dimensions of centralization, specialization, and formalization.

Mintzberg (1979) refers to the locus of authority and its dispersion among actors as the degree of *centralization* in organizations. An alliance governance structure is vertically centralized if the authority over alliance relevant aspects is concentrated on the higher hierarchical levels. In the extreme case, this level might be the alliance governors' board. If major decisions concerning the alliance's activities are delegated to lower managers,

then the alliance governance structure is vertically decentralized. Horizontal centralization describes the degree to which the decisional authority is concentrated or dispersed among actors on the same hierarchical level.

An alliance governance structure is *specialized* if the partnering firms establish dedicated positions or units for managing or performing the alliance-related tasks. These positions or units can be embedded within the firms' organizational boundaries, as are, for example, the alliance managers of the middle line. These positions can also be set up as separate, external organizational units. I consider that a higher number of alliance-specific positions is an indicator of a higher degree of specialization. If no dedicated alliance management unit or position is installed by the partner firms, for instance, if no alliance manager is present, then I consider an alliance governance structure as not specialized at all. In this case, the ongoing alliance management would be taken over by the partnering firms' senior management, which operationalizes the decisions of the alliance governors' board through their own organizational structures.

Formalization of the alliance governance system refers to the degree of predefined, described, and fixed contingencies, and to adequate responses to these contingencies by the partner firms. The number of potential situations and conditions that require action and response is one indicator of the degree of formalization. The degree of detail in which adequate responses are formulated and documented is a second indicator of formalization.

2.2 ALLIANCE GOVERNANCE MECHANISMS

Even though the terminology varies, scholars agree that every governance system consists of mechanisms to *coordinate*, to *monitor* (or control), and to *incentivize* (or motivate) the behavior of its members (Jensen (1983)).

It is one of the basic functions of the alliance governance system to *coordinate* the dispersed activities of the alliance partners so that the alliance objective can be fulfilled. A significant variety of typologies of organizational coordination mechanisms have been proposed (e.g., March and Simon (1958); Thompson (1967); Van de Ven, Delbecq, and Koenig (1976)). Mintzberg (1979) puts forward a useful synthesis for our purposes. Mintzberg differentiates mutual adjustment, which he defines as the informal exchange of information, often on an if-necessary basis; direct supervision carried out by the giving of orders; and standardization, for example, by predefining processes or outputs.

The assessment of contributions and duty fulfillment of the alliance partners is the main objective of the alliance *monitoring* mechanisms (Cravens, Piercy, and Cravens (2000); Gulati (1998)). My focus here is on the monitoring of the alliance partner firms with regard to the aims and scope of the alliance (Gulati and Zajac (2001)), rather than on the monitoring of the alliance per se from the perspective of a partner firm (Ariño (2003)). I follow the intra-organizational literature (Baliga and Jaeger (1984)), distinguishing between formal (performance indicators and reports) and informal (social) alliance monitoring mechanisms and applying them to the inter-organizational setting as well.

Incentive mechanisms for alliance organizations support the coordination and monitoring functions. In general, management uses incentives to ensure compliance with the overall objective of an organization by appealing to actors' inherent desires. Thus, incentives are aimed at achieving compliance or goal-directed behavior by creating a setting in which the relevant actor decides voluntarily to engage in the behavior that benefits the alliance (Parkhe (1993)). Such incentives can be differentiated into safeguards and type of synergy allocation rule. Safeguards are defense mechanisms that discourage opportunistic tendencies by imposing a punishment on the respective firm (Dyer and Singh (1998)). Synergy allocation rules refer to motivational effects of benefit appropriation ("pie sharing") from the alliance (Contractor and Ra (2000); Jap (2001)).

Table 1 summarizes the design parameters of alliance governance systems.

Table 1: Alliance governance system design parameters

Alliance Organization Dimensions	Design Parameter	Instrument / Parameter Value
<i>Governance Structure</i>	Centralization	Vertically and horizontally; authority concentration
	Specialization	Presence of dedicated alliance positions
	Formalization	Degree of detail of contingencies and responses
<i>Governance Mechanisms</i>	Coordination	Mutual adjustment
		Direct supervision
		Standardization
	Monitoring	Formal: performance indicators, cooperative scorecard, alliance accounting system
		Informal
Incentive	Safeguards	
	Synergy allocation rules	

2.3 CONTINGENCY FACTORS

Many studies, both conceptual as well as empirical, have investigated some selected and isolated sets of influencing factors of alliance governance modal choice (Albers (2005)). Based on a review of alliance literature, I identify the most prominent contingency factors relating to governance modal choice and synthesize their impact on the governance system's design parameters (*Table 2* provides an overview). These contingency factors relate to characteristics of the member firms (member firm size and alliance experience) to features of the internal environment of the alliance (alliance size and scope, trust and behavioral uncertainty, and alliance goals) as well as to the alliance's external environment (Albers and Zajac (2008)).

Table 2: Contingency factors of alliance governance modal choice in the alliance literature (overview)

Contingency Factor	Conceptual Studies	Empirical Studies
Member Firm Size	Cauley de la Sierra (1995); Child and Faulkner (1998); Cooper (2001); Spekman, Isabella, and Avoy (2000)	Doz (1988); Oxley (1999); Pangarkar and Choo (2001)
Alliance Experience	Child and Faulkner (1998); Spekman, Isabella, and Avoy (2000); Sydow (1992)	Anand and Khanna (2000); Kale and Singh (2007); Kale, Dyer, and Singh (2002); Lyles (1988); Simonin (1997); Teng and Das (2008)
Alliance Size	Doz and Hamel (1998); Sydow (1992); Van de Ven (1976); Das and Teng (2002); Gomes-Casseres (2003); Medcof (1997); Hwang and Burgers (1997)	Gulati (1995); Oxley (1999); Kim and Park (2002); Dialdin and Gulati (2004)
Alliance Scope	Child and Faulkner (1998); Doz and Hamel (1998); Khanna (1998); Khanna et al. (1998)	Inkpen (2000); Kim and Park (2002); Oxley (1999); Oxley and Sampson (2004)
Trust and Uncertainty	Child and Faulkner (1998); Das and Teng (1996), (1998), (1999), (2001a), (2001b); Koza and Lewin (1998); Ring and Van de Ven (1992), (1994); Sydow (1992); Tallman and Shenkar (1994); Thorelli (1986)	Casciaro (2003); Gulati (1995); Gulati and Singh (1998); Krishnan, Martin, and Noorderhaven (2006); Lui and Ngo (2004); Oxley (1999); Sengupta and Perry (1997); Zaheer and Venkatraman (1995)
Alliance Goal	Garrette and Dussauge (2000)	Dussauge and Garrette (1995); Pangarkar and Klein (2001); Sengupta and Perry (1997);
Complexity and Stability (External Environment)	Das and Teng (2001a); Gomes-Casseres (1996); Hoffmann and Schaper-Rinkel (2001); Sydow (1992)	Casciaro (2003); Folta (1998); Osborn and Baughn (1990)

Member firm size. Alliance studies emphasize that firm size is a relevant point to consider in the setup and management of alliances (Child and Faulkner (1998); Cooper (2001); Doz (1988); Pangarkar and Choo (2001)). Alliance scholars usually refer to aspects of relative firm size. Some studies, such as those by Cauley de la Sierra (1995), Child and Faulkner (1998), and Pangarkar and Choo (2001), postulate that firms prefer to ally with similar sized partners. Other studies, such as those by Oxley (1999) and Spekman, Isabella, and MacAvoy (2000), dispute this hypothesis. Focusing on absolute firm size, large firms carry structural attributes that are also reflected in their alliances. Large firms have traditionally been associated with higher degrees of formalization, specialization, and decentralization (Child (1973); Donaldson (2001)). Furthermore, they can access a larger resource pool. With these features comes a greater desire to control activities in the organization, implying that such alliances will have extensive accounting, and especially reporting, systems in place. When large firms ally, researchers suggest that these firms transfer their preferences to the alliance as well. Due to the larger variety and quantity of resources available, large firms can more easily install managers in positions that are dedi-

cated for alliance management than can small firms. Hence, the more large firms that are involved in an alliance, the more formalized and specialized the alliance governance system, and the more elaborate the monitoring system, will be. Small firms are associated with greater flexibility and speed of decision making, which is the result of their slim organizational structure (Cooper (2001); Doz (1988)). To maintain this swift decision making, small firms tend to push for coordination mechanisms of direct supervision in the alliance, but large firms will press for a greater degree of standardization and mutual adjustment.

Member firm alliance experience. Studies such as that by Kale, Dyer, and Singh (2002) suggest that experience in allying affects the degrees of specialization and centralization, and also the monitoring and coordination mechanisms in alliances. Specialization tends to increase, and vertical centralization tends to decrease, in alliances that involve partner firms that are experienced in allying, since these firms try to capture, store, and disperse their alliance-related knowledge by such organizational means as the installation of a dedicated alliance management function (Kale, Dyer, and Singh (2002); Kale and Singh (2007)). The managers in charge of these alliance functions are reported to push for the development of specific alliance metrics and performance evaluation systems, thus increasing the proliferation of the alliances' monitoring mechanisms. Experienced firms imply a greater reliance on an alliance function, so they also tend to more easily appoint a dedicated alliance manager for each alliance. Thus, they facilitate the application of mutual adjustment in their alliances. Kale, Dyer, and Singh (2002) report that experienced firms codify their alliance knowledge in manuals and guidelines, resulting in a greater possibility of using standardization as a coordination mechanism in subsequent alliances.

Alliance size and scope. Despite separate contingency factors, there is a similar logic underlying the effect that both alliance size and scope exert on alliance governance design. Both size and scope relate to the number and variety of issues, i.e., opinions, tasks, processes, and values, that need to be considered in the alliance governance task. Issues to coordinate, monitor, and to consider in designing effective incentive mechanisms increase as the number of partner firms grows (Dialdin and Gulati (2004); Dussauge and Garrette (1995)). The same considerations apply to an alliance between just two firms, but also to cases in which the scope of the alliance is broadened to include an increasing number of domains, e.g., markets or functional areas (Doz and Hamel (1998); Inkpen (2000)). Hence, as alliance size and/or scope increases, so also do coordination mechanisms of standardization and direct supervision increase in effectiveness, bypassing mutual adjustment (Mintzberg (1979); Oxley (1999)). Vertical centralization decreases because decisional authority needs to be passed down to lower levels in order to cope efficiently with increasing complexity. Formalization tends to increase in order to encode duties and rights in a manner that is easily accessible and similar to all partner firms and involved units. Specialization increases as well, since a broader scope of the alliance or a higher number of partners results in more issues that require higher processing capabilities of dedicated units and resources.

Trust and behavioral uncertainty. Even though they are different theoretical concepts, trust and behavioral uncertainty are closely related in how they affect the design of alliance governance systems. High trust involves low behavioral uncertainty, since trust mitigates uncertainty about the partner's behavior (Casciaro (2003); Das and Teng (2001a);

Gulati (1995); Krishnan, Martin, and Noorderhaven (2006)). Transaction cost-related studies examine the control features of hierarchies, implying increasing efficiency of more hierarchical governance structures with increasing uncertainty (e.g., Gulati and Singh (1998); Ring and Van De Ven (1992)). Conversely, some scholars such as Das and Teng (1996; 2001a) argue that high uncertainty implies an increased likelihood of failure, and recommend that partner firms avoid more hierarchical control modes, such as equity based alliances. However, both types of studies focus on different features of alternative arrangements. The control features on which transaction cost theorists focus are related to the monitoring mechanisms, the degrees of formalization, and the coordination mechanisms. As the degree of behavioral uncertainty increases in an alliance, formalization tends to increase as well, because management tries to unambiguously fix agreed-upon procedures, to ensure commitment to these agreements, and to clearly encode consequences of potential misbehavior. The degree of elaboration of the monitoring mechanisms also increases with growing uncertainty, as does the reliance on standardization as coordination mechanism. Further, the reliance on third-party enforceable safeguards tends to expand in alliances with uncertain partners. Strategic management studies that recommend the avoidance of more hierarchical governance arrangements in situations of high uncertainty focus on the minimization of dedicated investments in alliances with uncertain partners. Since alliance-specific investments are a form of self-enforcing safeguards, a reduced use of self-enforcing safeguards can be stipulated in high uncertainty alliances.

Goals. Studies by Dussauge, Garrette, and Mitchell (2000; 2004) distinguish between efficiency-oriented alliances and growth-oriented alliances. Since efficiency measures usually reduce redundancies and lead to the pooling of assets, they are more critical to agree upon among the still-autonomous alliance partners. Therefore, Garrette and Dussauge (2000) argue that efficiency-oriented alliances tend to be less effective than growth-oriented alliances, which leverage complementary skills and learning. These authors suggest that efficiency goals are better pursued by merging, which would circumvent the extended negotiation rounds that characterize alliances. Hence, efficiency-oriented alliances need to replicate hierarchical structures and mechanisms as closely as possible. The importance of mutual adjustment decreases when standardization, price, and direct supervision are more frequent. Thus, efficiency-oriented alliances are more formalized, and the elaboration of their monitoring system is higher, compared to that of growth-oriented alliances. Furthermore, efficiency-oriented alliances are based on tasks, resources, and procedures that are familiar to all partner firms. These alliances aim at exploiting cost-saving possibilities rather than exploring new terrain. In growth-oriented alliances, in which the partners join complementary resources, there is a clear potential for misunderstandings due to experience gaps in the field of activity of the partner. Hence, dedicated management positions are more relevant for growth-oriented alliances. Due to the strategic relevance of abandoning (pooling) resources and assets, higher hierarchical levels tend to be more involved in efficiency-oriented alliances than in growth-oriented alliances. Thus, efficiency-oriented alliances are characterized by lower degrees of specialization and horizontal centralization, but a higher degree of vertical centralization than growth-oriented alliances.

External Environment. The relevance of the external environment for organizational structure is a cornerstone of organizational theory. Mintzberg (1979) differentiates the

dimensions of environmental complexity as the number of factors to be considered, their diversity, and dispersion; and defines stability as the predictability of environmental changes. Mintzberg hypothesizes that the more dynamic the environment, the more organic, and the more complex the environment, the more decentralized will be the structure of an organization. Dynamic and complex environments often favor similar organizational features of alliances. Environments that are complex or dynamic or both require less formalized alliance governance structures, because the number of factors to consider and the possible consequences and contingencies to fix and formalize become increasingly difficult and potentially inadequate. However, in these environments, more specialization is required to observe and cope with the numerous factors and changes that occur. Vertical decentralization is augmented to allow for rapid decision making and quick adaptation. To further support decision speed, which is critically important in environments in which numerous factors impact the organization and change is hardly predictable, horizontal centralization tends to increase as well. Mintzberg (1979) also notes that due to their fewer bureaucratic features, there is a greater use of direct supervision and mutual adjustment, since these coordination mechanisms are more effective in dynamic environments (Mintzberg (1979)). Contrary to the intra-organizational context, as an alliance coordination mechanism, direct supervision also increases in effectiveness in complex environments.

3 FORMING CONFIGURATIONS OF ALLIANCE GOVERNANCE SYSTEMS

3.1 ACHIEVING CONFIGURATION

Alliance governance systems comprise an ensemble of interacting specific instruments and structural provisions. Therefore, the effectiveness of the alliance governance system's building blocks is determined not only by the external contingency factors, but also by the design parameters' compatibility. In a comparable manner, the contingency factors do not appear in isolation or in sequence, but instead exercise their influence on the governance system simultaneously. Hence, the presence of some combinations of contingency factors can reinforce or mitigate specific governance provisions. These provisions are important, because they render specific combinations, or patterns, of design and contingency parameter values either more or less effective and so result in configurations of alliance governance systems.

3.1.1 INTERRELATIONSHIPS

Organizational size is influenced by the organization's age; large organizations are usually old organizations. With age comes experience (Mintzberg (1979)). Thus, I hypothesize that both the presence of large organizations and that of experienced organizations among the alliance member firms favor more specialized governance structures, encourage the use of mutual adjustment and standardization as coordination mechanisms, and imply more elaborated systems of monitoring and control. However, size and experience are still discrete contingency factors. But unless the two factors occur jointly they exert strong forces towards their preferred design parameter values.

The structural dimensions of specialization, formalization, and centralization are closely intertwined with the coordination mechanisms. For instance, mutual adjustment always comes with a greater degree of decentralization. Increased specialization describes the establishment of more dedicated units for the purposes of the alliance. An increased number of dedicated staff results in the establishment of an increased number of work groups and committees among the cooperating firms. These work groups and committees are needed for the alliance specialists to communicate and exchange ideas on their respective fields. However, once the alliance passes a certain threshold of specialization, mutual adjustment can no longer be exclusively relied upon. Therefore, as the number of specialized units increases, mutual adjustment is gradually complemented by standardization or direct supervision.

Specialized alliance governance structures are also likely to come with more elaborate alliance monitoring systems. On the one hand, to allow for sufficient monitoring, more dedicated units for special purposes require a greater number of more specific performance indicators. On the other hand, these dedicated units are not only objects, but also subjects, of monitoring, and tend to advocate for more fine-grained and sophisticated monitoring systems (Kale, Dyer, and Singh (2002)).

Standardization is based on formal rules and regulations and both require and cause increasing formalization. If formalization is reduced or only limited, then direct supervision or mutual adjustment becomes necessary. Formalization also affects the alliance monitoring mechanisms. A certain degree of formalization is necessary if formal monitoring mechanisms are to apply. However, as the degree of elaboration of the alliance monitoring system increases the need to formalize also increases.

Formalization is also related to the alliance incentive mechanisms. The use of third-party enforceable safeguards is accompanied by an increased degree of formalization. To be enforceable, decisions and consensus by the contracting parties need to be documented, i.e., formalized. For the synergy allocation rules it can be stated that the simpler the allocation rule, the less formalization is needed. Complex allocation rules require a greater degree of formalization, since all the necessary parameters, such as compensation basis and the computation of shares for the partners, not only must be determined in the alliance agreement, but also assessed and evaluated in the ongoing alliance management phase.

3.1.2 CONFIGURATIONAL CORES

As noted above, I define alliances as institutionalized voluntary cooperation between firms for a common goal. Firms agree to coordinate parts of their activities in order to achieve advantages over their competitors. For these advantages to materialize, their actions must be coordinated, and an authority structure for alliance-related decisions must be defined. Firms are highly sensitive to sharing or delegating authority over parts of their own organizations to external parties. Thus, the two factors of authority allocation and concentration in an alliance, i.e., the design parameter of centralization, and the way in which authority

is utilized to coordinate work among the partners in an alliance are pivotal dimensions of alliance governance design. These factors are closely intertwined as well. In the intra-organizational context, horizontal centralization is related to the coordination mechanism of direct supervision, but decentralization is usually related to functioning and nature of mutual adjustment (Mintzberg (1979)). The orchestration of decisions in a horizontally decentralized alliance structure relies on mutual adjustment. In a horizontally centralized structure it is achieved by direct supervision. With regard to vertical centralization (decentralization), the installation of different hierarchical levels involves the creation of superior and subordinate relations and thus, the use of direct supervision as well. Standardization is a mechanism designed to reduce direct communication and thus mutual adjustment, and the involvement of higher levels, and hence falls in between the two poles of centralization and decentralization on both dimensions (Mintzberg (1979)).

The result is four pairs of centralization and coordination constellations that represent the cores of alliance governance systems. These cores are defined in *Table 3*. The remaining design parameters and the contingency factors fall into consistent patterns around these cores and result in five configurations of alliance governance systems (Albers (2005)). Instead of four configurations, five emerge, because the horizontally and vertically decentralized core gives rise to two ideal types.

Table 3: Cores of alliance governance systems by centralization and coordination mechanism

	Horizontally centralized	Horizontally decentralized
Vertically centralized	Autocratic governors board, direct supervision dominates <i>Primus configuration</i>	Only alliance governors board, mutual adjustment and standardization dominate <i>Senate configuration</i>
Vertically decentralized	Management unit; standardization and direct supervision dominate <i>Technocratic configuration</i>	Teams and committees on various levels of the alliance; mutual adjustment dominates <i>Advocate and Committee configurations</i>

3.2 THE PRIMUS GOVERNANCE SYSTEM

3.2.1 ILLUSTRATIVE CASE

General interest in the other company and a feeling of empathy among senior executives are the basis of many interfirm cooperative agreements. When Joachim Hunold met Niki Lauda on his skiing vacations in Lech (Austria), a spectacular deal was initiated. Hunold’s airline, Air Berlin, and Lauda’s latest airline startup, Niki, would cooperate in the major production, scheduling, and downstream activities such as marketing and sales. On the

basis of only rough, informal agreements, Air Berlin was given significant autonomy on sales and network planning, not only for itself, but also on behalf of Niki. Without any official agreement, both entrepreneurs returned to their headquarters and announced the new agreement to their surprised employees. No alliance manager was appointed in either company. Hunold, who was also managing director of his airline, and Michael Frahm, who was Lauda's managing director for Niki, would communicate directly and on an informal basis. Even one year after their initial agreement, and nearly 11 months after the first cooperative activities were implemented, the formal alliance agreement was still not finalized and signed by the partners. However, Air Berlin took a 24% equity stake in Niki.

3.2.2 DESCRIPTION

Niki and Air Berlin illustrate the Primus alliance governance model, which is characterized by high degrees of centralization on both the horizontal and vertical dimensions. One of the most senior executives, or a small group of them, takes the lead, either as a result of personal engagement or because of their company's relative dominance in the alliance. This core group of executives leads the alliance in an effective manner. Direct supervision is a major means of coordination and reflects a high degree of centralization. The governance structure's formalization is limited. Direct supervision does not require formalization, so the initial alliance agreement concentrates on the goals and visions of the alliance rather than on detailed contingencies and adequate responses. The senior executives are confident that their counterparts can manage and respond appropriately under all major circumstances. The degree of specialization is low. Specialized alliance units are not necessary for the Primus model, as the partners' senior management takes on these roles to some extent. All alliance-relevant tasks and non-alliance functions are performed by their respective organizations' employees and units. Because of these features, the alliance is a very prominent part of each of the partner firms' organizations, and thus their identity as well.

The Primus model comes with direct supervision as important coordination mechanism. The alliance partners agree on the division of competencies and responsibilities for alliance-related tasks, and thus may issue orders for the alliance partner(s) within their area of responsibility. The lean shape of the Primus alliance is reflected in its reliance on only a selected set of performance indicators for monitoring the partners. Because the senior executives have direct communication channels and a high commitment to the alliance, the formal monitoring system is very limited and reflects the low degree of formalization. Self-enforcing safeguards, mainly in the form of equity arrangements and alliance-specific investments, dominate the Primus configuration. Senior management commitment and interest, together with the low degree of formalization, renders the option of third party enforced safeguards an unnecessarily complicated and complex means. Incentivizing is a minor problem, since the relevant representatives of the member firms are, at least in early stages of the alliance's lifecycle, the most convinced and committed promoters. Therefore, although it becomes a more relevant issue as the alliance evolves, incentivizing is a minor issue in the initial phases of the alliance. Therefore, the synergy allocation rules set out in the alliance are as simple as possible.

3.2.3 CONDITIONS

Relying on direct supervision as a coordination mechanism within the alliance is not possible without a high degree of trust among the partner firms. The senior executives who are at the nexus of this alliance governance system trust each other and rely on one another's judgment. Opportunistic tendencies are not expected. This degree of trust is increasingly difficult to achieve and maintain as the number of alliance partners increases (Tröndle (1987)). Thus, the Primus model is most often found in alliances involving few firms.

The Primus configuration is also chosen primarily by alliance partners whose goal is to use the alliance for growth-oriented purposes rather than to exploit efficiency potentials. In growth-oriented alliances, horizontal centralization is facilitated because revenue generation tasks are more easily transferred to an external authority, compared to efficiency-related decisions that involve the elimination of redundancies. The expected streams of additional revenue compensate for a loss of decisional discretion, which is, in any event, only temporary.

The Primus model is used in both dynamic and complex external environments. The dynamic character of the environment is countered by the high degree of horizontal centralization and the prominent use of direct supervision. The dynamic and complex traits of the Primus model's environment are also reflected in the low degree of formalization. The dynamic environment especially encourages the use of informal monitoring mechanisms. In the Primus configuration, informal (social) control is strong, due to the close personal relations of the executives and their mutual understanding; however, informal control is supplemented by selected performance indicators that are related to the environment's complexity.

The Primus configuration typically involves a significant share of small partner firms among its members, and reflects the organizational features of small organizations to a significant extent. The model exhibits low degrees of formalization and specialization, less elaboration of the formal alliance monitoring system but a high level of centralization, and is governed by entrepreneurs at the apex and thus by direct supervision as the primary means of coordination. These features suggest another characteristic of the Primus member firms: they are inexperienced in forming alliances. The partners are predominantly small and may be young firms in complex, dynamic environments. These firms have not yet been involved in a great variety of alliances. The senior executives who initiate the alliance on personal accounts see the alliance as their topic, so they treat the alliance the same way they treat every challenge and business opportunity they have hitherto encountered: mainly guided by intuition.

3.3 THE SENATE GOVERNANCE SYSTEM

3.3.1 ILLUSTRATIVE CASE

To lower their logistics costs, seven large manufacturers of fast-moving consumer goods in Germany (Beiersdorf, Henkel, Colgate Palmolive, Glaxo SmithKline, Sara Lee, Johnson

& Johnson, Wella) formed an alliance to bundle part truck load shipments (PTL) in their distribution logistics to retailers. The operational activities are delegated to a special logistics service provider, TTS Global Logistics GmbH. Therefore, for the alliance member firms, ongoing alliance management is of secondary importance. The governing body of the alliance is composed exclusively of the partnering firms' senior logistics representatives who communicate every three months and negotiate the individual terms and conditions among one another and with TTS. Realized savings are allocated to the partners by a specially designed algorithm, based on each partner's share of the volume.

3.3.2 DESCRIPTION

Like the Primus model, the Senate governance system is characterized by high vertical centralization. It joins the strategic apexes of the partner firms with the alliance governors board as exclusive official body of its structure. However, unlike the Primus model, the Senate model is decentralized on the horizontal axis. The alliance governors board is democratic, a forum of negotiation that can only decide by consensus and thereby resembles one of the parliamentary chambers in a democratic system. Thus, mutual adjustment takes a prominent role in the ongoing management of the alliance. However, because the democratic process of decision making is time-consuming, cooperative concerted actions among the partners are difficult to achieve. To counter this problem, the members rely on formalization; decisions once agreed upon are documented and serve as references and guidelines for future decisions. Due to their fundamental relevance and the requirement to explicitly acknowledge all partners' opinions, the degree of detail of these formal records is extensive. This formalization tendency in turn reveals that in the Senate model, standardization takes a prominent secondary role to mutual adjustment as a means of coordinating in this configuration.

The specialization of the Senate configuration is limited; the alliance governors board is the only dedicated unit of the alliance governance system. Decisions taken at the alliance governors board level are operationalized and implemented within the respective member firms by units and employees as additions to their usual tasks. To solve issues of special relevance or urgency, in alliances that involve more than two firms, subforums and committees on the governors board level are occasionally implemented. Mutual adjustment is the primary coordination device in these subgroups as well, and the results of these committees' work are proposals that are eventually turned into formal plans for the alliance by the alliance governors board.

The Senate model primarily uses formal monitoring mechanisms that cover a wide spectrum of performance indicators and reports. Thus, its monitoring system is quite detailed, and corresponds to its general level of formalization. All firm representatives require a close monitoring of the partner firms' behavior and contributions to the alliance. However, due to confidentiality concerns and the rejection of too close integration among the partners, the alliance avoids installing a dedicated alliance accounting system.

Because of the complex negotiation and bargaining processes, the speed and dynamics of which can only be guessed at, and together with the prominent role of standardization and

formalization, the partners heavily rely on third-party-enforced safeguards. The partners avoid self-enforcing safeguards because of the high degree of behavioral uncertainty and the number of partners involved, both of which are major contingency factors of the Senate configuration. Complex synergy allocation rules are utilized. These rules are the results of the complex bargaining processes and the awareness of the partners that once they agree on a consensus decision, it will be difficult to renegotiate at a later point in time.

3.3.3 CONDITIONS

The Senate model is most often found in alliances that have only a small, limited number of partner firms. Mutual adjustment decreases in effectiveness as the number of partner firms goes beyond a certain threshold. A high degree of behavioral uncertainty is characteristic of the Senate system, a fact that is partially explained by the Senate model's prominent role in alliances among competitors. Due to the uncertainty among the partners, a certain reluctance to appoint or elect special representatives with more far-reaching rights is present, and underscores the use of mutual adjustment as a primary coordination device. A lack of trust also results in detailed prescriptions for contingencies and adequate responses, and in a detailed initial alliance agreement, rendering third-party enforcement a viable option.

The Senate is a configuration that is designed to achieve efficiency goals for the alliance's members. The negotiation-based interaction in the alliance governors board is a necessary prerequisite if the alliance members are to be able to identify efficiency potentials, but it is especially important to implementing the required measures. As a function of the primary alliance motivation, the proposed inferences of vertical and horizontal centralization (decentralization) are perfectly reflected in the Senate configuration.

The Senate configuration is found in alliances with a narrow scope. With the alliance, the partner firms pursue efficiency goals for a specific, limited domain, such as a certain geographical market or product group. In broad-scope alliances, the high number of issues for decision making need more elaborated alliance governance systems.

The simple, stable environment in which the Senate configuration is found allows for its high degree of formalization and the use of standardization as a secondary coordination mechanism. The environment also partially accounts for its small degree of specialization. Especially the stable character, but also the environment's simplicity, permit extended debates and the slow pace of decision making among the alliance governors. But at the same time, the alliance governors are not confronted with a multitude of discontinuities in their environment, so they can handle all major decisions themselves, which is why vertical decentralization is discouraged. The simple, stable environment not only favors the use of third-party-enforced safeguards rather than self-enforcing safeguards as incentive mechanisms, but also allows for complex synergy allocation rules to be negotiated and applied among the partner firms.

3.4 THE TECHNOCRATIC GOVERNANCE SYSTEM

3.4.1 ILLUSTRATIVE CASE

Five airlines founded the Star Alliance in 1997, but the number of partners has meanwhile increased to 21 airlines, and the inclusion of additional candidates is only a matter of time. Driven by consumer wishes for seamless traveling and worldwide coverage of their route networks, the member airlines coordinated their networks and schedules, established extensive code-sharing agreements, provided access to each other's frequent flyer programs and airport lounges, and communicated the resulting benefits to their consumers under the Star Alliance brand. This alliance achieves significant revenue gains, but the partners are also pursuing measures and programs to achieve cost reduction through joint efforts.

The Star Alliance is governed by the Chief Executive Board (CEB), in which the CEOs of all partner firms meet twice a year to discuss issues of strategic importance. Within this top governance forum, all members have the same voting power. On the next lower level is the Alliance Management Board (AMB). This level consists of all alliance managers of the member firms that operationalize and implement the decisions taken on the CEB level. These alliance managers are appointed solely for the purpose of the Star Alliance, communicate with their counterparts at the other airlines directly, and oversee and promote the partner firms' activities for the alliance. These alliance managers are not usually in isolated positions within their organizations, but are assisted by a significant number of support staff. In addition, the member firms have created a separate coordinating and managing unit exclusively for issues of this alliance, the Star Alliance Service GmbH, located in Frankfurt am Main, Germany. A dedicated staff of about 60 employees facilitates cooperation among the members by developing proposals on how to generate further benefits for the partner firms, thereby supporting the alliance managers and the partner firms' CEOs in managing the alliance.

3.4.2 DESCRIPTION

The Star Alliance closely resembles the Technocratic governance system. It exhibits a detailed alliance structure. Vertically decentralized, the alliance governors board is involved only in the grand issues of strategic importance. Operational tasks are delegated to dedicated alliance managers. The alliance managers usually have support staff at their disposal, indicating a high degree of specialization of the alliance governance structure. Most striking is the creation of a separate administrative unit that is exclusively charged with coordinating the various activities of the partners, and may also use direct supervision as a coordination mechanism. The central management unit supports the member firms in participating, managing, and leveraging the benefits of their cooperative venture. This special unit can take a multitude of forms such as an equity joint venture, but is not involved in the partners' core value-adding activities.

In addition to direct supervision, standardization takes a prominent role as a coordination mechanism in this configuration. The Technocratic configuration's reliance on standardization is reflected in the high degree of formalization. Its detailed alliance agreement

spells out the duties and rights of the partners very precisely. Also reflecting the high level of formalization and standardization is the presence of a detailed alliance monitoring system with many performance indicators, all of which are systematically computed and evaluated by all members. A partial integration of the partners' own accounting systems is typically pursued to generate relevant reports and information on time, and to "feed" the variety of specialized units and employees to further improve and align the diverse activities within the member firms for the purposes of the alliance.

The extensive degree of formalization favors third-party enforceable safeguards. The extensive monitoring mechanisms together with the high level of formalization and specialization pull this alliance governance system toward using complex synergy assessment and distribution rules.

3.4.3 CONDITIONS

The Technocratic configuration is found in alliances with a broad scope. The elaboration of its structure is extensive and is only borne by the member firms if the number of issues with which members must cope is sufficiently high and complex, requiring that specialized units be installed within their own organizations, and even beyond as a separate management unit. The effect of broad scope on the alliance governance system design is often reinforced by the high number of partner firms in such an alliance.

The majority of the member firms are large firms that are experienced in cooperating. With regard to specialization, coordination, and monitoring mechanisms, both contingency factors favor the Technocratic system's features. The prominent role of dedicated alliance managers as liaisons is a typical trait, one that is amplified in its tendency if large firms represent an important share of the alliance's member firms.

Behavioral uncertainty among the partners is usually moderate. The significant degree of formalization and standardization greatly mitigates behavioral uncertainty among the members. The high level of specialization, with the member firms installing a dedicated unit for alliance management purposes, is not only an effective means of coordinating the ongoing processes in the alliance, but also a way to constantly observe and monitor the partner's behavior.

The Technocratic configuration is used in alliances that are primarily set up to pursue growth-oriented goals. The alliance covers a variety of areas to benefit from the partners' know-how, product range, or geographical coverage. For these aims to materialize, the alliance governance system requires specialized units for its own purposes and a governors board that is willing to delegate authority to the lower ranks (vertical decentralization).

High administrative setup costs are borne by the partners. These are sunk costs if individual firms leave the alliance, and represent self-enforcing safeguards in the form of alliance-specific investments by all partners.

The Technocratic alliance governance system is typically found in complex and stable environments. Its high degree of specialization, vertical decentralization, and horizontal centralization, often including a supporting central management unit, reflect the environmental complexity. Because the alliance governors board has a broad focus on issues of strategic relevance, both the specialized alliance managers and the central management unit's staff have a significant degree of autonomy within the strategic frame posed by the governors as general reference, and, if present, within the portfolio of standardized situations and responses on a more detailed level. The high degrees of formalization and the prominent role of standardization render it especially effective in stable environments.

3.5 THE ADVOCATE GOVERNANCE SYSTEM

3.5.1 ILLUSTRATIVE CASE

In 1997, Hewlett-Packard (HP) and Cisco Systems agreed to collaborate closely in technology development, product integration, professional services, and customer support. In early 2002, the companies tried to further expand and strengthen the alliance, mainly by increasing formalization and standardization, and by specifying the manner and domain of the alliance's coverage in greater detail. The alliance's goal was growth-oriented: co-development and co-marketing of enterprise network solutions were its main goals. And in fact, the alliance generated steady revenue increases in the period from 1997 to 2001.

To govern the alliance, both HP and Cisco appointed dedicated alliance managers with their own support staff and special unit, and made this group exclusively responsible for this inter-organizational venture. Their tasks are described vividly by Casciaro and Darwall (2003) "In both HP and Cisco, the primary responsibility for the management of the alliance fell on the alliance manager. Alliance managers had a challenging charter involving strategy, sales, and technology. They were expected to develop a business strategy for optimizing the value of the alliance, disseminating the strategy upwards [...] and downwards [...]."

Thus, the alliance managers at HP and Cisco were personally responsible for the success or failure of their alliance. Every two weeks managers and their teams held conference calls about operational issues. In addition to their direct communication, both alliance managers pushed for more formalization and standardization within the alliance, which in their view allowed for greater impact and easier communication with their various contacts in both their own and their partners' organization. The two CEOs were only marginally involved, acting as a supervisory board overseeing the alliance and reviewing the input from their alliance team. The alliance's performance was closely monitored by a set of formal key performance indicators, which also reflected the alliance managers' responsibilities.

3.5.2 DESCRIPTION

The Advocate configuration is characterized by vertical and horizontal decentralization. Nearly all authority is vested in dedicated middle line managers; thus, the alliance managers

are the crucial group at the core of this configuration's functioning. They are responsible for the alliance in all respects in their own firm. They also promote the alliance upwards (towards the senior executives) and downwards into their own organizations.

The principal coordination mechanism is mutual adjustment. Formal authority is equally distributed among the alliance managers who communicate and discuss regularly during their alliance management committee meetings. The difficult task of coordination within the new alliance is supported by standardization. The alliance governance structure's moderate degree of formalization supports this secondary coordination device, and the use of formal performance indicators for monitoring purposes. The degree of specialization is moderate as well; alliance managers are appointed, but have only limited additional staff at their disposal.

The moderate degree of formalization renders the use of third-party-enforced safeguards a viable means to align interests and prevent opportunistic behavior. The synergy allocation rules are moderate in complexity.

3.5.3 CONDITIONS

The contingency factors that best describe the Advocate configuration are low behavioral uncertainty among a small number of mainly large partner firms with comparable bargaining power for the pursuit of growth-oriented goals. A low number of representatives on the alliance managers committee correlates positively with the effectiveness of coordination by mutual adjustment. Low behavioral uncertainty is an important prerequisite for this configuration, and is even nurtured in ongoing management actions by the close interaction of the alliance managers. The moderate degree of formalization reflects an atmosphere of trust, but also mirrors the need for standardization as a supporting coordination mechanism.

Dedicated positions for alliance management are more easily agreed upon by large alliance partners. The large firms in the Advocate configuration also exhibit a significant experience in forming alliances, which is reflected in the organizational context in which the alliance managers are embedded. These managers are often part of the member firms' alliance portfolio function, which involves a variety of units exclusively responsible for alliances of their organizations. Alliance experience is reflected in the degree of vertical decentralization and the use of mutual adjustment and standardization in the Advocate configuration.

Both broad scope and growth-oriented objectives, pull the Advocate model toward a higher degree of specialization. Specialization tendencies are partially compensated by the Advocate's secondary coordination mechanism, because standardization and formalization reduce the alliance management team's time and efforts in their negotiations.

The Advocate configuration is used in complex and stable environments. Like the Technocratic model, the combination of mutual adjustment and standardization renders it an especially suitable setup in this context. In this environment, the alliance managers and

their support staff are perfectly positioned to observe the environment, react, and initiate adequate responses, both within their own organizations and among themselves. The Advocate configuration relies on a system of key performance indicators as monitoring devices.

3.6 THE COMMITTEE GOVERNANCE SYSTEM

3.6.1 ILLUSTRATIVE CASE

Technical and Computer Graphics (TCG) is a Sydney-based alliance of 24 small Australian computer service firms (Miles and Snow (1995)). Linked by general contractual agreements that include requirements and prerequisites for joining this alliance, and also rules and guidelines for membership, subsets of the partner firms cooperate selectively if new business opportunities occur. Every member firm autonomously scans its relevant market environment for new product or service possibilities, and when an opportunity appears, checks with the required cooperation partners inside the TCG multilateral alliance. In the TCG network, the initiating partner firm assumes the role of promoter and leader for this particular project. However, the overall alliance agreement is purely democratic, with no central committee or encompassing formal governance structure in place. Thus, at any given point in time every TCG member firm can be involved with one or more of its partners in several project-oriented mini-alliances in different areas.

3.6.2 DESCRIPTION

The TCG example shows that the Committee governance configuration is, like the Advocate, marked by its decentralized setup along both horizontal and vertical dimensions. Democratic forums and committees prevail on all alliance governance levels. Mutual adjustment is the dominant, and almost the only, device used for coordination. However, these committees are responsible for specialized issues and have little interlinkage. In fact, the committee configuration appears as a variety of single, focused alliance initiatives between the same set of firms. Each alliance initiative comprises a specialized committee that is focused on its isolated cooperative issue in trying to identify and leverage synergy potentials for all partners. The partner organizations are organized under only a very general and unspecific agreement and join to explore potential fields of cooperation on various organizational levels and in various parts of their organizations.

Every alliance partner firm appoints a high ranking manager as commissioner for the alliance, rather than as active alliance manager. This commissioner only establishes contacts, but leaves further specification and negotiations to the respective representatives in its organization. Thus, the degree of specialization is low.

Since these individual initiatives receive only minor senior management support but emerge as individual mini-alliances among the partners, the Committee governance model resembles a meta-structure for them. Each of these committees is charged with identifying synergistic potentials in their fields, but over time will take on the organizational

form that is best suited to their needs. Thus, ultimately, there may be all other types of configurations functioning as the governance systems of these mini-alliances. This configuration is characterized by a high degree of participation on all levels. A variety of representatives meet to discuss details on “their” cooperative ventures, and these discussions and information exchanges are productive for all sides. The representatives are experts in their areas and thus can quickly understand and evaluate the statements and arguments of the partner. For the overall alliance agreement, performance measures are few and simple, since the synergistic effects result from its project-like sub-alliances.

The degree of formalization is low. The primary alliance agreement is formulated in general terms, rather than specifying definite aims and measures or even contingencies and rules.

Due to the overly general character of the alliance agreement, incentive mechanisms on the organization-wide level are almost non-existent. The vague commitment to collaborate and to jointly identify areas where synergies can be generated requires neither extensive safeguards nor the establishment of synergy allocation rules.

3.6.3 CONDITIONS

The scope of the alliance governed by the Committee governance system is broad. To allow for the highest number of initiatives to materialize, almost no part of the organization and no functional activity is excluded. However, these initiatives later take focused forms that cover a narrower set of issues. Because the alliance agreement stipulates only vague visions and aims, the number of partners participating in this form of alliance is mostly unrestricted. However, the Committee governance model depends on individual initiatives by lower ranks. These initiatives take the form of democratic forums at the outset of their creation. But because there is so much mutual adjustment involved, their effectiveness and efficiency is restricted in alliances with many partners. Nevertheless, the autonomy granted to the lower governance levels for exploring potentials for synergies, together with the predominant cultural traits of the partner firms, facilitates such a grassroots model of alliance creation and governance. Furthermore, mutual adjustment predominates as a trait of the meta-alliance, with the mini-alliances taking on the form that best suits their contexts. Hence, the sub-alliances can account for a great variety of members, depending on the willingness and capabilities of all member firms to participate in every or only in a few of them.

Since in such alliances vague statements of missions and intentions happen at the senior executive level, and thus there is also only an ill-defined specification of duties among the partners, such an agreement is easily initiated and agreed upon, but its practical force remains questionable. Hence, for the Committee governance system to reach its potential as a very flexible governance system, the degree of behavioral uncertainty among the partners needs to be low. Only in an atmosphere of understanding and mutual trust are the vague specifications in the agreement disseminated throughout the member organizations and its potentials realized. The appointment of an alliance commissioner rather than an alliance manager reflects the partners’ goodwill toward the alliance. In this ideal

situation, neither partner has an incentive to dominate the other. But for the individual sub-alliances, the situation can be very different, depending on the stakes that are negotiated for the lower managers.

The reliance on mutual adjustment and the significant degree of decisional discretion that is passed on to lower ranks reflect the high degree of trust the partner firms have for their own organizational skills. The partner firms exhibit alliance experience because an adequate understanding of both the possibilities and the risks involved in alliances is necessary to allow for the sub-alliances to form and develop their potential. The option to choose adequate governance systems for every initiative involved in their cooperative agreements offsets the pull for more specialization.

The dominance of mutual adjustment in this configuration is a response to the need to generate as many individual initiatives, and to include as many parts of the partner organizations, as possible. The Committee governance model is a viable configurational form in both complex, dynamic settings, and in stable, simple environments. However, the configuration's suitability differs according to the primary goals associated with its underlying alliance agreement.

On the one hand, this configuration works well in dynamic and complex environments. The high degree of flexibility and responsiveness to environmental change, and the number of potentially relevant trends and forces to be taken into account, are all reflected in the major role of the committees that make the name of this configuration. The alliance is formed primarily for growth-oriented goals. The high degree of involvement of lower-level specialists who know their area of expertise and who are therefore capable of judging the benefits and potentials in disposing of more resources or further specialists by the partner organizations is leveraged by these means.

On the other hand, the Committee governance configuration can also be an effective form in a completely different environment. In simple, stable environments, it is not the flexibility and responsiveness that gives rise to this configuration, but its basic character in identifying efficiency potentials and in implementing the respective actions by smaller cooperative projects. The applied decentralized structure and the low degree of reinforcement by senior management officials indicated that urgency in decisions and actions, as well as the quick adaptability that is typical of highly dynamic environments, are not important matters here. This efficiency-oriented form of the Committee governance configuration is a way to identify further efficiency prospects for organizations that have already eliminated most obvious and high-impact cost reduction measures, know their environment, are forced to further improve their cost structure, and are otherwise restricted in their actions.

4 DISCUSSION AND CONCLUSION

My analysis and subsequent synthesis identifies five configurations of alliance governance systems: (1) the Primus, which has a lean and comparably concentrated authority struc-

ture; (2) the Senate, which has its negotiation forum on the level of the strategic apexes of the partner organizations; (3) the Technocratic system, with its detailed structure and supporting separate management unit for the alliance; (4) the Advocate, with its predominant role of the alliance managers from the partner organizations' middle line; and (5) the Committee governance system, which has a superstructure within which individual initiatives form. *Table 4* provides an overview of these five forms, their design parameter values, and the dominating contingency factors.

I have used the configurational approach here because of its holistic and synthesizing nature. These qualities are especially valuable in research fields that are marked by a great variety of contributions based on different theoretical bases that originate in different disciplines, and which suggest alternative terms and concepts for underlying phenomena that are often similar. This is certainly the case for the alliance field. Configurational research is recognized as having significant descriptive, explanatory, and predictive potential (Meyer, Tsui, and Hinings (1993); Short, Payne, and Ketchen (2008)), but it also faces serious criticism. Most notably, configurations are criticized because they do not adequately reflect the complexity of real life organizations, and they are difficult to test empirically. Donaldson (1996), for example, describes configurations as "simplistic caricatures" and thus contests their practical utility and theoretical validity. Mintzberg (1989), as one of the foremost proponents of this research stream, agrees that configurations are caricatures, and that they are ideal types which do not exist in reality. However, it is not simplification per se, but rather the manner and degree of simplification that needs to be discussed, as well as the usefulness the theory reveals (Mintzberg, Ahlstrand, and Lampel (1998)). The degree of simplification varies among proposed typologies. Well-conceived configurational theories are attributed with significant complexity despite their mostly intuitive appeal, apparent clarity, and simplicity (Doty, Glick, and Huber (1993); Miller (1996)). Configurational models are based not only on analytical processes, such as the identification of relevant variables, postulation of causalities, and interrelationships, but also, as their most prominent feature, involve the synthesizing processes of identifying patterns and coherent forces among the variables, and thus developing ideal types. Configurations are difficult to test empirically, since they are, by definition, ideal types that will always deviate to a greater or lesser degree on one or more of the enclosed variables from real life organizations. In fact, configurations are not primarily conceived as subjects of empirical testing. They are designed to be overstatements that can be used to clarify, explore, and pinpoint causalities and interrelationships in a complex setting to the utmost extent. However, their overstatement character does not imply empirical insignificance or serve as an argument to negate the usefulness of ideal types. The popularity of, for example, the Miles and Snow (1978) and Mintzberg (1979) typologies relates to their intuitive appeal, not because they are simple, but because scholars and practitioners are able to understand existing organizations and to relate them as more or less corresponding to one of these types. Thus, scholars and practitioners are enabled to understand the underlying logic of these real organizations, the features that differ among ideal types and real organizations, to question and examine why they differ, and to use the ideal type to explore the reasons of their limited success.

Table 4: The five alliance governance system configurations

	Primus System	Senate System	Technocratic System	Advocate System	Committee System
<i>Horizontal Centralization</i>	Centralized	Decentralized	Centralized	Decentralized	Decentralized
<i>Vertical Centralization</i>	Centralized	Centralized	Decentralized	Decentralized	Decentralized
<i>Major Coordinating Mechanism</i>	Direct supervision	Standardization, mutual adjustment	Standardization, direct supervision	Mutual adjustment, standardization	Mutual adjustment
<i>Specialization</i>	Low	Low	High	Moderate	Low
<i>Formalization</i>	Low	High	High	Moderate	Low
<i>Control</i>	Key performance indicators, less elaborated	Elaborated	Elaborated	Single indicators	Single indicators
<i>Incentive</i>	Self-enforcing, simple	3 rd party safeguards, complex synergy allocation rule	Self-/3 rd party, complex synergy allocation rule	3 rd party enforced prevail	Depending on issues, no synergy allocation rule
<i>Alliance Size</i>	Small	Small/moderate	Large	Small	(indefinite)
<i>Goal</i>	Growth	Efficiency	Growth	Growth	Growth or efficiency (closely related to environment)
<i>Scope</i>	(indefinite)	Narrow	Broad	Broad	Broad (general), narrow (individual)
<i>Uncertainty</i>	Low	High	Moderate	Low	Low
<i>Firm Size</i>	Small firms/majority of small firms	Majority of large firms	Majority of large firms	Large firms	(indefinite)
<i>Experience</i>	Inexperienced firms	(indefinite)	Majority of experienced firms	Experienced	Experienced
<i>Environment</i>	Dynamic and complex	Simple and stable	Complex and stable	Complex and stable	Simple and stable or complex and dynamic (closely related to goals)

The alliance governance configurations that I develop in this paper can benefit the academic as well as the practitioner. The set of structural and instrumental design parameters represents a level of detail that has hitherto not been achieved in the interorganizational context. The resulting alliance governance configurations provide a basis for understanding and explaining alliances and their organizational design from a theoretical point of view, and can serve as points of reference to support the design of alliance governance systems from a practical perspective.

However, further empirical support is needed for a variety of the contingency-design interrelationships. Even though I derive the interrelationships from the current, mostly empirical, research, enhanced degrees of detail and refinements brought about by further studies are required. An empirical validation of the ideal types is difficult to achieve, even though methodological refinements have recently been proposed (Fiss (2007)) that can be fruitfully applied in the alliance field.

Also, the development of an evolutionary model of alliance governance systems is worth pursuing. Organizations evolve, their environment changes, and so do alliances. The configurations' internal and external consistency generate strong coherence that results in a high degree of inertia – organizations are said to be caught within an archetype that also functions under changing conditions. For example, the organizational track model proposed by Greenwood and Hinings (1988) allows for a differentiated discussion and provides a starting point in the analysis of dynamics of alliances and their governance systems. Their framework explicitly allows for unresolved changes and could be extended by one or more tracks that lead to the termination of the underlying alliance. Many types of alliances exhibit a significant lifespan and therefore will reflect adaptations of their structure. Several advances have been made in this direction. However, these efforts focus on adaptations of individual governance mechanisms (Reuer, Zollo, and Singh (2002)). The broader concepts of organizational tracks for alliances and their governance systems promise to yield further insights into alliance organizational dynamics and evolution.

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