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Managing dynamics through robust alliance governance structures: The case of KLM and Northwest Airlines

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Summary As alliances are mainly used in dynamic industries, extant theory assumes that alliance governance structures undergo frequent changes. This article aims to show, however, that some governance structures are more robust in dealing with internal and external dynamics than others. We develop propositions about the characteristics that need to be built into an alliance for it to be robust. These propositions are grounded in a case study of the KLM—Northwest alliance. After frequent changes in the governance structure of their alliance, KLM and Northwest found a model that has withstood turbulence in the airline industry for over a decade. This model, the virtual joint venture, has among others as a key characteristic a fifty—fifty profit sharing arrangement.

Introduction

The large increase in the number of alliances (Hagedoorn, 2002) requires companies to build up skills in developing alliance governance structures to control a variety of inter-organizational relationships. As alliances are typically used in dynamic environments (Duysters and De Man, 2003), changes in alliance governance structures are expected to occur frequently (Bamford et al., 2003; Reuer et al., 2002; Ziegelbauer and Farquhar, 2004).

The literature on alliance governance (e.g. Das and Teng 2000, 2001) however has focused mainly on studying alliance governance structures at one point in time (e.g. De Man and Roijakkers, 2009). There is only a small literature that looks at changes in alliance governance structures over time (Reuer et al., 2002). The key assumption of this literature is that internal and external dynamics in alliances (Das and Teng, 2000) force companies to adapt to changing conditions. As a consequence extant literature has studied the number and type of changes in alliance governance structures. Ernst and Bamford (2005) and Reuer and Zollo (2000) claim alliance governance needs to change to meet changing business requirements. Large scale research has

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been done by Reuer and Zollo (2000, 2002). They show that of 145 alliances, 44% had experienced a change in governance structure. This was measured by looking at changes in contracts, changes in alliance boards or alliance steering committees and the introduction or formalization of mechanisms for alliance monitoring.

We propose to ask a question opposite to what the literature studied so far: do alliance governance structures exist that are robust and that do not require adaptations in response to internal or external dynamics? And if so, what characteristics do such structures have? The purpose of this paper is to advance propositions that address these issues. It contributes to the emerging literature on change in alliances by showing that some governance structures are more suited to absorb dynamics than others. Hence, the effect of internal and external dynamics on the number of changes in a governance structure may be moderated by the properties of the governance structure itself.

This is also relevant for managers because changing alliance structures may be a complex and costly affair. It requires much management attention and often demands the involvement of lawyers to review contracts. In addition changes may increase the risk of alliance break-up, as existing relations between people may be severed and new ones need to be built up. The outcome of such a process is always unsure. Even though changing governance structures may be necessary, if it can be avoided by a clever alliance design that would be preferable.

The case of KLM and Northwest Airlines, which have been collaborating for almost two decades, provides a good opportunity to study the robustness of alliance governance structures. In the early days of the alliance, the governance structure changed a number of times. Since 1997, however, there were no significant changes even though the business environment remained very turbulent. Apparently, the KLM—NWA governance structure is relatively immune to this turbulence. To explore why the KLM—NWA alliance is robust, this article first discusses the nature of alliance governance and the reasons why governance changes occur. Next the alliance governance of the KLM—Northwest alliance is analyzed over the years 1989—2007. The final sections identify propositions about robust governance structures and contain a discussion of our findings.

Elements of alliance governance

Alliance governance structures are the result of a detailed design process in which attention is paid to several elements of governance, such as legal form, communication structures, cultural differences, and trust. The sum of all formal and informal elements of governance makes up the ultimate alliance governance model that may vary widely across alliances depending on the specific situation. Furthermore, if changes in the environment or within the partners occur during the course of the cooperation, this uniquely combined set of elements that make up the governance model can be adapted to fit the new circumstances. A well-designed alliance governance structure coordinates and ensures the contribution of all partners to the alliance and provides for an equal division of revenues from activities performed within the alliance (Todeva and Knoke, 2005). The main elements of alliance governance are discussed below.

Goal

The key element determining an alliance governance structure is the goal. Following Chandler's dictum that structure follows strategy (Chandler, 1962) the governance structure should be geared towards realizing the goal of the alliance. Alliance goals may be adapted during the course of the alliance to fit changing circumstances in the environment (for instance changing market demands) or in the partners (for instance reduced importance attached to the alliance by one or both of the partners). Alliance goals are usually translated into performance indicators that an alliance should meet. The goal of the alliance should also make clear the relevance of the alliance to the partners. Following from the goal is the division of labor in the alliance, which determines which company performs what task.

Legal form

Partners can shape their cooperative agreements (Duysters and Hagedoorn, 2000). In general, we can make a distinction between contractual agreements and equity relations in which a shareholding relationship is involved (for example a joint venture). The legal form of an alliance can change during the course of cooperation between partners. A relatively loose collaboration may transform into a long-term alliance when new opportunities for collaboration are discovered.

Financial agreements

Financial agreements refer to contractual clauses related to issues such as profit sharing, transfer pricing, dividends, risk sharing, reinvestment of earnings, and ownership of assets. These clauses can be adapted during the course of the alliance, for example, due to a shift in the balance of activities carried out by partners. The planning and control cycle of an alliance should be agreed upon as well.

Scope and exclusivity

Another governance element that may be subject to change over time is the scoping of alliance activities. Partners typically choose to cooperate in a specific area and decide to limit the scope of their cooperative agreement to include only those business areas that deliver most value from working together. The focus of alliance activities may be on a certain product, country, and/or technology. Also, partners typically choose to cooperate for a limited amount of time. The degree of exclusivity of an alliance refers to the extent to which partners are allowed to cooperate with other companies on activities that are within the scope of the alliance. Scope and exclusivity changes may occur when new areas of collaboration are found. For example, an R&D alliance may initially be directed at technology A, but may be extended later to include technology B.

Decision-making

There are various ways to decide on issues in an alliance. Majority voting, consensus, blocking votes or lead partner decision-making are among the possibilities. Who decides what and under what conditions is an important element of alliance governance, specifically because alliances are subject to change. When for example one partner's investments in the alliance increases over time, he may claim more voting rights.

Governance bodies

Governance bodies are the steering committees, working groups and alliance teams in which staff from the alliance partners jointly discuss, solve or execute alliance activities. The composition of these bodies is an important point of attention. When an alliance progresses over time form R&D to production to marketing, other experts should be involved and new alliance teams have to be set up.

Communication structures

Good communication between partners is essential for the optimal functioning of an alliance. A widely used communication structure for alliances is the multiple points of contact model where at different hierarchical levels a particular employee in partner A acts as the main contact for his counterpart in partner B at the same hierarchical level. This structure ensures that issues are discussed at the right level in the partner organizations. In addition, partners typically make use of linking pins and teams. Besides communication between partners, internal communication regarding the alliance within each of the partner organizations is also of high importance. Alliance managers need to fulfill the task of informing internal stakeholders about the alliance and often must play the role of their partner's ambassador. They need to explain to their own colleagues why the partner organization wants things done in a certain way. Communication is not only of a formal nature but also has informal aspects to it. Formal gatherings of alliance managers can be organized in such a way that there is also time for social events. As alliance managers of the different partner organizations get to know each other better, they may be willing to share more and richer information, which may benefit the alliance as a whole.

Culture

Cultural differences at the level of companies and/or countries that cannot be overcome may harm an alliance. Specifically, national and organizational cultures can differ to such a large extent that these differences result in divergent ways of communicating and decision-making. A lack of understanding between partners concerning these differences can lead to serious conflicts between companies. By contrast, cultural differences can also be a source of value for alliance partners when these differences are used as a source of learning. A thorough understanding of cultural differences is required to understand how alliance governance needs to be adapted to profit from cultural differences or avoid culture clashes. Over time the impact of culture may change: when partners collaborate intensively a separate alliance culture may emerge that bridges the distinct cultures of the partners.

Trust and commitment

Trust and commitment compose the next two elements of governance (Cullen et al., 2000). Partners can trust each other on the basis of visible characteristics such as competence, consistency, and trustworthy behavior in the past (McAllister, 1995). As the development of trust typically leads to less formalization, fewer rules and control mechanisms, and less detailed contracts, it can improve the efficiency of the alliance. Trust can also lead to higher effectiveness of the alliance as partners that trust each other are more likely to share knowledge and information resulting in new ideas for optimization and innovation. Commitment and trust are related concepts. The level of commitment of partners to an alliance refers to the extent to which they want to contribute to the cooperation and feel connected to the alliance.

By combining these elements of alliance governance in a consistent way, companies can develop viable alliance governance structures. According to Reuer and Zollo (2000) some elements of alliance governance may affect the robustness of a governance structure. They focus on the elements of goal and scope, when they state that alliances with a broad scope, a less clear division of labor, higher relevance for the partners and a high chance of broadening the scope of the alliance are more likely to require changes in the governance structure. These characteristics increase the number of touching points between the partners and in their view this higher complexity makes the alliance less robust and thus more likely to change over time.

Causes of changes in governance during the life of the alliance

The literature identified various other causes of changes in alliance relationships. A first group of causes is environmental dynamics. Changes in competition, governmental regulations or technology may require firms to adapt their alliance to the new reality.

Internal changes in one of the partners are a second cause of change in governance. A partner may change its strategy which may lead to an increased or decreased relevance of an alliance. Key alliance people that change positions in a company may also lead to a change in the alliance, as does a new CEO or an internal reorganization.

Success or failure of the alliance business may also impact alliances. Success may induce further intensification of the relationships, requiring more investment or an extension of the scope of the alliance. An alliance may focus on more markets or products than initially expected. Similarly, failure of an alliance to achieve its goals may mean an alliance has to be disbanded or investments have to be reduced. With alliance failure rates of around 50% (De Man, 2005), alliance failure is a frequent source of changes in governance structures.

Relationship building is the fourth source that affects alliance governance. When partners get to know each other they may simplify their alliance governance structure (Gulati, 1995) or spot new opportunities for the alliance, that require a change in the alliance contract. When partners get to know each other better, they may find new opportunities to collaborate.

Fifth, there are some inherent tensions in alliances that need to be managed and may direct an alliance to a more complex or simpler governance structure (Das and Teng, 2000; De Rond and Bouchikhi, 2004). For example, many alliance partners are competitors as well. The balance between collaboration and competition may shift over time, necessitating adaptations to the governance structure. Also it is difficult to strike the right balance between dependence and autonomy. On the one hand companies in an alliance depend on each other; on the other hand they are still responsible for their own bottom line.

Taking into account these sources of dynamics, alliances are likely to experience changes in their governance structure. Indeed, Ernst and Bamford (2005) even claim alliances may be too robust. When an alliance has not been changed for some time, managers may wonder whether they are managing them adequately. Only a few articles deal with the extent to which governance changes occur in practice. Some cases provide an indication of the relevance of this phenomenon. In an alliance between Bayer and Millennium Pharmaceuticals for researching and developing new drugs, no less than six contractual changes were implemented between 1998 and 2003 (Ziegelbauer and Farquhar, 2004).

Hence, these research results indicate that changes in governance structures are a relevant topic. On the one hand, changes in structures may come with the territory. Since alliances are particularly useful in turbulent industries (Duysters and De Man, 2003), frequent changes in governance structure may be necessary. On the other hand, if a structure could be found that copes with dynamics without having to go through a difficult process of renegotiating and adapting an alliance, that would save costs and time. Can such robust structures be found? The case of KLM and Northwest suggests they can. Below we will describe the governance structure of this alliance, after discussing the method we used.

Method

This article is based on a single case study. The aim is to look for governance mechanisms that enhance alliance robustness in order to generalize to theory (Lee and Baskerville, 2003) not to test theory. This means that based on a single case study we look for causal mechanisms that may explain why a certain alliance is robust. Next we advance propositions about these mechanisms. This should make it possible to do large scale research to test whether these propositions hold more broadly.

As our question is of a 'how' nature, a detailed analysis of an individual alliance is the relevant method (Eisenhardt, 1989; Yin, 1989). The specific case of KLM and Northwest was selected because of its longevity, which increased the chance of finding changes in the governance structure and studying their long-term effects. In addition, airlines have experienced considerable turbulence over the past 20 years. Increasing liberalization, overcapacity leading to pressures on profitability, the terrorist attack of 9/11 with the subsequent drop in demand for flying, the rise of group based competition (Gomes-Casseres, 1994) with the Skyteam, Oneworld and Star alliances, and the introduction of the hub-and-spoke system, are only a few of the changes in the business environment airlines had to face. As the KLM—Northwest alliance has survived all these changes, it provides a fertile ground for researching the topic of robustness and governance changes.

Data was collected using three different sources. The first source was interviews, specifically with the alliance managers responsible for the alliance in KLM and NWA. They were the most important source of information. This included one of the authors. The alliance managers work in the alliance departments of the companies. The first interviews with them took place in the spring of 2006. The final interview was in February 2007. We used a semi-structured interview in which we discussed the elements of alliance governance described above to find out how they were filled in for the alliance over the years. Second, company documents and presentations were studied to obtain additional material. Finally, news paper clippings covering the lifetime of the alliance were the third source of information. These helped us to find critical events that might have been the cause of changes in the alliance governance structure. These data were used to write a first version of the case study which was next sent to the companies involved to check the facts. This resulted in minor factual changes.

The analysis of the case was done first by a qualitative event history analysis. Case studies may be used to study the impact of events (Yin, 1989) on subsequent developments. We assumed that major events could lead to changes in the alliance structure, because they require the alliance to adapt to altered circumstances. By identifying such events in the business environment and in the alliance itself and next studying whether a change in the governance structure occurred, it became possible to get more insight into the robustness of the alliance governance structure. Changes in the governance structure were operationalized as changes in the elements described earlier. By comparing these elements before and after an event, we could identify those mechanisms in the governance structure that increased the robustness of the alliance over time. Based on the analysis of the case we infer some propositions about the robustness of alliance governance structures.

The case of KLM and Northwest Airlines

Background, motive, and initial governance structure

While alliance formation is typically associated with high-tech firms and R&D-intensive industries the airline industry is an example of a service-oriented sector where various kinds of alliances have also proliferated. One of the first and most successful ongoing alliances formed in this industry is the agreement between the Dutch airline KLM (now part of the Air France—KLM Holding Company) and the US-based Northwest Airlines (NWA; at the time of writing involved in a merger with Delta Airlines), the start of which dates back to 1989.

Around that time, several industry-wide developments triggered a need in both companies to join forces. Firstly, deregulation had become an important trend in the airline industry since the 1970s when the US government decided to loosen protectionist policies for its local carriers. Soon European governments followed suit and the influential role played by governments in regulating national airlines decreased further as a result. In the 1990s restrictions on transatlantic flights between the US and Europe were partially removed through the first Open Skies Agreement between the US and the Netherlands. Secondly, deregulation and overcapacity in the sector where an increasing number of carriers compete on a restricted number of routes resulted in a high level of rivalry among airlines. Despite an increase in air traffic, prices of tickets were significantly lowered over time and many airlines have shown negative financial results over the years.

In response to these patterns that have eroded the competitive position of many airlines, they have searched for ways to operate more efficiently and increase their income. For many airlines the formation of alliances has constituted an important tactic to generate additional revenue and realize some cost savings. Alliances serve to accomplish these goals in the following ways:

- Through alliances airlines gain access to a larger network of flight routes and final destinations as they connect their own network to that of their partners. Specifically, on the basis of a hub-and-spoke system partnering airlines transport their passengers between major airports (or hubs) where they board connecting flights to final destinations (spokes). Partnering airlines can increase their income substantially by increasing the number of final destinations on offer through connecting their flight networks.
- In addition, by delivering passengers to each other's networks and by combining flights (that is by jointly operating flights, a phenomenon called code-sharing) the occupancy rate of the planes increases. Fewer empty seats mean a better use of capacity and revenue growth.

The alliance between KLM and Northwest is one of the first cooperative agreements in the airline industry targeted at increasing revenue (the Appendix provides some more background on airline alliances). The relationship started in 1989 when KLM in cooperation with a number of other investors participated in a leveraged buy-out of Northwest and the Dutch airline obtained a seat on the Board of Northwest based on its 20% ownership of the US airline. This initial equity agreement between KLM and Northwest was for the most part aimed at creating synergies in air cargo rather than passenger travel.

Changes in the governance structure (1989—1997)

The relationship between KLM and Northwest has been subject to a number of changes over the past decades. The operating environment of this airline alliance is very dynamic. In this section we examine the developments in both the KLM—Northwest relationship and its environment and describe how these changes have led to formal adaptations to the governance structure underlying the alliance as well as informal changes in daily working procedures.

In 1992 the US government and the Dutch government reached the first Open Skies agreement between the US and Europe allowing Dutch airlines to fly to many more US destinations than previously possible. Furthermore, US airlines were granted more slots at Amsterdam Schiphol Airport thus increasing their capacity to transport large numbers of passengers to Schiphol where they typically board connecting flights to final destinations all over Europe. Shortly after this agreement was made, the US government granted anti-trust immunity to the KLM—Northwest alliance allowing both partners to broaden the scope of their cooperative relationship to also cover passenger air travel. As cooperation in the field of air cargo had not lead to expected synergies, both parties decided to intensify their relationship by starting to collaborate on passenger flights between Amsterdam and Detroit. To formalize this collaboration, KLM and Northwest formed a block space agreement whereby both airlines purchased seating capacity on their partner's flights to sell them for their own account. These first adaptations to the governance structure are thus due to external changes in the regulatory environment as well as internal developments as one joint activity (cargo) appeared to be less successful.

In 1993 Northwest was facing bankruptcy as a result of the first Gulf War and its devastating effects on the airline industry and commercial passenger air travel. Through sacrifices made by Northwest personnel a full bankruptcy was warded off in the end. KLM also stepped in and supported its destitute partner by increasing its equity stake in Northwest from 20% to 25%, the maximum share that can be held by non-US companies participating in US airlines. Here changes in governance clearly occurred as a result of environmental dynamics, which had negative implications for Northwest.

In 1994 Northwest regained its stock market listing for the first time since the 1989 leveraged buy-out. Around this time KLM and Northwest drew up a 'restricted alliance agreement'. This restricted alliance agreement provided for a joint governance committee, the Alliance Committee, in which managers of both partnering companies control the alliance. A Network Group and a Passenger Group were soon added to this top-level governance structure. The main task of the Network Group was to optimize the use of aircraft across flight routes and destinations by drawing on fleets owned by KLM and Northwest. Among other things, the Passenger Group is concerned with matters related to marketing and sales. Both the Network Group and the Passenger Group were later combined in the Joint Venture Operating Committee (JVOC)[1] responsible for the daily operations of the alliance. This new alliance governance structure came about to facilitate the intensified relations between KLM and Northwest as they started to successfully collaborate in several areas. Although KLM and Northwest started to cooperate in areas other than operating flights (e.g. com-

[1] The partners use the term joint venture to refer to their contractual agreement. This does not imply that a separate company was set up for their alliance.

bined lounges in Asia, joint frequent flyer programs), the focus of shared flight operations continued to be the Amsterdam—US routes. Hence the changes in the governance structure in these years emanated from internal causes of change, specifically the success of the business and new opportunities that were identified inside the alliance.

In 1995 the relationship between KLM and Northwest ran into difficulty as the Board of Northwest decided to protect the company from a possible take-over attempt by one of its major shareholders. By means of a 'poison pill' that would leave potential acquiring parties facing high costs, the US airline put up defenses against a possible acquisition attempt. KLM viewed this move on the part of Northwest as an act of distrust targeted specifically against the Dutch carrier and began taking legal action against Northwest in order to contest the poison pill. This breach of trust ultimately led to serious conflicts at the level of the Boards of both airlines and the Alliance Committee consequently stopped functioning altogether. Despite this lack of managerial direction the operational units combined in the JVOC continued going about their business as usual. As the joint business of KLM and Northwest was booming in the mid-1990s the need for a structural solution to problems at the top management level became increasingly pressing. In 1996 the Chairman of the Board of KLM, Bouw, was succeeded by Van Wijk and the long-term cooperation with Northwest was carefully re-examined. The alliance with Northwest had played an important role in the success of the Dutch carrier over time and KLM's persistence to exercise control over Northwest through its equity stake was grounded in its need for a long term, exclusive agreement. With the formation of the 'enhanced alliance agreement' in 1997 KLM could give up its equity stake of 25% in its US partner, as the enhanced alliance agreement ensured such an intensive, long-term alliance. In sum, the 'enhanced alliance agreement' was drawn up as a result of a joint need in both partners to reduce internal tensions within the alliance, while simultaneously capitalizing on the booming business.

The virtual joint venture model (1997—2007)

The enhanced alliance agreement was drawn up in 1997 and is still in place today. For 10 years now this agreement has allowed KLM and Northwest to deal with dynamics without making formal changes to their underlying alliance agreement. The agreement extends beyond the scope of the restricted alliance structure, but it also constitutes a formalization of the intense informal cooperation that emerged during the period 1994—1997. Despite major conflicts at the Board level during these years cooperation at the operational level became more intense and grew beyond the formal arrangements laid out in the restricted alliance contract long before it was formalized in 1997. The main points of the enhanced alliance agreement include the following:

- The scope of the alliance was extended to include all North Atlantic routes (e.g. Canada and Mexico) and India.
- KLM closed down all sales offices in North America and Northwest did the same in Europe, the Middle East, Africa. In these areas the two companies sell their partner's tickets.
- Through the enhanced agreement KLM and Northwest both gained representation at the highest decision level of their partner's organization as both companies granted each other a seat on their respective Boards.
- A virtual company was set up to cover all operations concerning the transatlantic flight routes. Both partners participate on an equal (fifty—fifty) basis and thus share all yearly profits or losses. This means that they share the revenues they generate on this transatlantic route. They also share their costs. The agreement has a detailed listing of which costs can be attributed to the alliance. The resulting profit is shared equally.
- The agreement is an 'evergreen': it will run indefinitely and the first possibility for a partner to give notice to terminate the agreement is after 10 years. There is a three year notice period. The 10 year minimum satisfied KLM's need for a long-term agreement and makes it possible to invest more in the alliance, because investments can be earned back over a longer time period.

The drawing-up of the enhanced alliance agreement resulted in a new alliance governance structure (see Figure 1 for a visual representation of this model), called a 'virtual joint venture'.

The top-level of this governance structure includes cross board positions of the CEO's of the two airlines. The KLM CEO is a non-executive director on Northwest's board and the Northwest CEO is on KLM's supervisory board. This signals mutual commitment and points at the importance both airlines attach to their cooperation. At the same time this particular arrangement has led both partners to develop a higher level of understanding of each other's operations and business decisions. Executive VPs and Senior VPs of both partners hold seats on the Alliance Steering Committee that is concerned with the significant task of designing alliance-level strategies with respect to the main functional areas of sales, network, and finance. It is imperative that the members of the Alliance Steering Committee know each other well. Therefore attention is paid to relationship building. Meetings of the Steering Committee always involve social events.

Five Working Groups are operating directly below the Steering Committee and are concerned with the management of operational issues related to the route network and the deployment of aircraft (Network Group), marketing and sales (Passenger Group), ground service, baggage claim, catering (Operational Group), cargo (Cargo Group), and financial matters (Finance Group). Without affecting the formal alliance governance structure, changes in the environment of the alliance are handled and worked into alliance operations by these Working Groups that communicate about their focus areas on a day-to-day basis. On the staff level the alliance management departments of KLM and Northwest facilitate the functioning of the alliance by managing the meetings of the Steering Committee, providing guidance and mediation in conflict situations, and managing external relations of the alliance to the larger cooperative network present in the airline industry (the alliance is now part of the Skyteam alliance). Table 1 summarizes the governance structure of the KLM—Northwest alliance based on the elements of governance discussed previously.

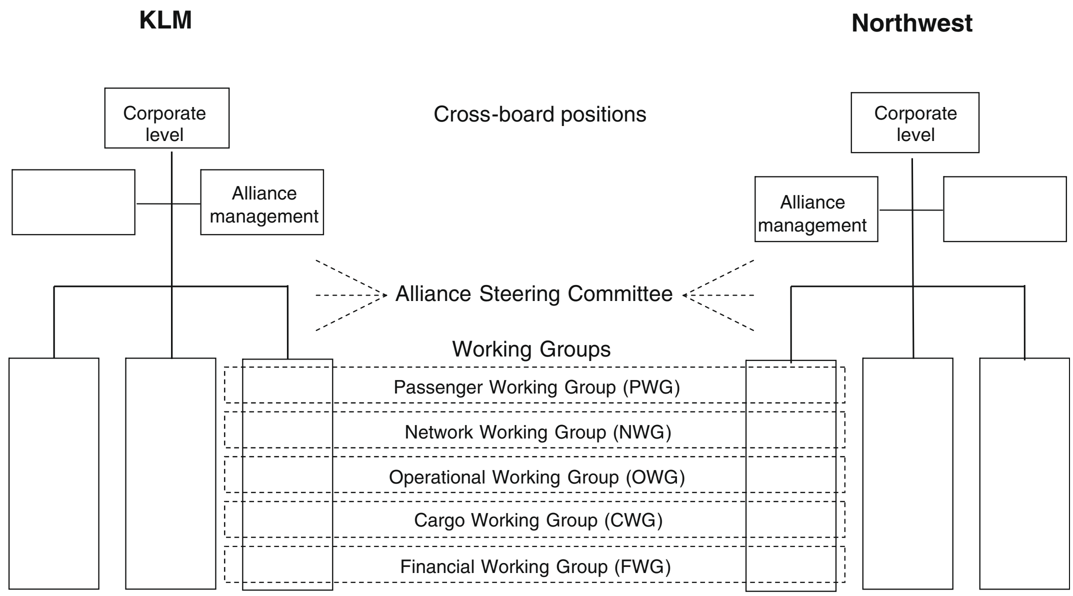

Figure 1 Governance structure of the virtual joint venture between KLM and Northwest, 1997—present.

Table 1 Alliance governance in the KLM—Northwest alliance after 1997.

Governance element	Example from the KLM—Northwest alliance
Goal	• Increase revenue by combining networks and exchanging passengers • KLM operates flights in Europe, Middle East and Africa; Northwest operates flights in North America
Legal form	• Contractual
Financial agreements	• Fifty—fifty profit sharing
Scope and exclusivity	• North Atlantic route • Exclusive
Decision-making	• Consensus
Governance bodies	• Alliance Steering Committee • Five working groups
Communication structure	• Multiple points of contacts • Use of informal channels
Culture	• Continuous communication to align the two businesses
Trust/commitment	• Ten year contract • Closing down of sales offices signals commitment • Social events to build personal relationships • Personal unions on a board level and inside the companies

In case a topic requires a formal decision, the Working Groups prepare these decisions and the Steering Committee formally approves them. The CEOs have never been formally involved in escalation procedures, even though the contract stipulates such an escalation procedure. The CEOs were only consulted on an informal basis on occasion when an important point of discussion arose between the partners. The division of tasks between the various governance bodies (CEOs, Working Groups, alliance management department, Alliance Steering Committee) so far has proven effective in dealing with a variety of changes in the business environment.

A related point is that the team of managers of the alliance consists of both specialists and generalists. The specialists are in the working groups. The more generalist alliance department maintains the overall view on the alliance; it helps to signal problems early on and acts as a lubricant when different interests need to be reconciled. There are links between the generalist groups and the specialists groups, through personal unions. A balanced staffing ensures that problems are identified early on. When they do occur the right persons in the alliance can be found to deal with them. This reduces the impact of internal tensions in the alliance.

The personal unions mentioned are noteworthy. People play more than one role in the alliance. For example, one alliance manager is a member of the Passenger Working Group, attends the Alliance Steering Committee meetings and reports about how developments in the Skyteam alliance affect the KLM—Northwest relationship. Another manager is part of the Network Working Group and also attends the Alliance Steering Committee. In this way, personal unions play an important role in signaling possible problems and reconciling them across the various committees and working groups. This technique ensures good communication and an effective flow of information, making the alliance much less vulnerable to different interpretations of events and to decision-making based on incorrect information.

Finally, many issues can be dealt with in the formal structure, but regular calls and emails go a long way in solving problems before they reach the official meetings in the Alliance Steering Committee or in the Working Groups. Informal channels are important for testing the waters and trying out new solutions to problems. Ideas can be raised informally to test the partner's reaction. These channels for information and idea sharing are instrumental in avoiding that the official channels get clogged with proposals or matters requiring attention.

Analysis and discussion

Figure 2 summarizes all major changes in the relationship between KLM and Northwest as well as developments in the environment of the alliance that have led to adaptations to the alliance governance structure over time. Referring to the causes of dynamics listed earlier, most of them can be traced in the KLM—Northwest case. An external cause of change in this time period is the open skies treaty. An example of a change within one of the partners is Northwest's introduction of the poison pill and KLM's change of CEO. Success or failure as a source of dynamics is found in the failure of the focus on cargo, which next led to attention for passenger transport. The success in the passenger business led to further intensification of the collaboration. The final cause of dynamics, the inherent tensions in alliances are clearly present in the KLM—Northwest case as well. For example, the problems in striking the right balance between dependence and autonomy are evident in the discussions around KLM's minority participation in Northwest. These sources of dynamics are at the root of the governance changes in the alliance over the period 1989—1997.

After 1997 the governance structure has not undergone major changes. This is remarkable as in the eight year period before 1997 several changes occurred. At the same time the business environment has remained turbulent. Since 1997 the airline business has changed fundamentally through the spread of alliances, continued deregulation and the threat of terrorism. In addition, since 1997 KLM merged with Air France (on 5 May 2004) and Northwest ran into financial difficulties again. The alliance however has continued to flourish and it has grown substantially, without changes in the governance structure. The merger with Air France did not affect the alliance in the period studied. The main reason for this is that anti-trust authorities demanded the companies would not integrate their alliances.

Nevertheless, sufficient dynamics in the environment are present since 1997 to predict that governance changes should be frequent. The fact that the alliance has a broad scope (it involves the complete North Atlantic business of both partners) and a high relevance to both partners (in 2004 it generated \$3 billion in revenue) also should make it more amenable to governance changes (Reuer and Zollo, 2000). Therefore, the existing literature (Bamford et al., 2003; Reuer and Zollo, 2000) would predict that the period 1997—2007 should be characterized by frequent changes in governance structure of the KLM—Northwest alliance. In practice, however, the governance structure remains remarkably robust during this time.

We propose that the explanation for this robustness in alliance governance lies in a number of characteristics of the alliance governance structure. As described earlier, the virtual joint venture developed by KLM and Northwest has several characteristics that enable it to cope with change. It has been able to withstand considerable turbulence in the business environment. The characteristics explaining the robustness are discussed below, each leading to a proposition about robust governance structures.

The first characteristic relates to the governance element of decision-making. In the KLM—NWA alliance different problems are dealt with at different levels. Most of the dynamics are dealt with in the Working Groups. Substantial changes are decided in the Alliance Steering Committee and usually come up via a bottom up process. Next to a horizontal division of labor pertaining to the tasks of KLM versus the tasks of Northwest, there also is a clear vertical division of labor between the various governance bodies. Research into the horizontal division of labor in alliances has taken place (see for example Harrisson et al., 2001). The vertical division of labor is as yet unexplored. The vertical division of labor relates to dynamics in that it enables an alliance to deal with environmental dynamics at the level where those dynamics are best understood. This leads to our first proposition.

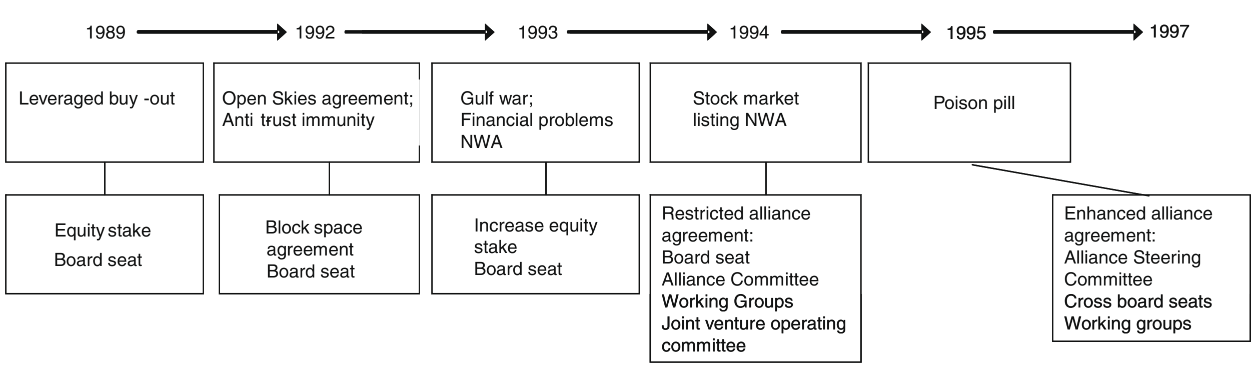

Figure 2 Changes in the business environment and alliance governance structure of the KLM—Northwest alliance.

Proposition 1. A clear vertical division of labor in an alliance will make the alliance governance structure more robust.

Second, regarding the element of financial governance the fifty—fifty structure aligns the interests of the partners to such an extent that since the implementation of the Enhanced Alliance Agreement even high impact shocks like the 9/11 attacks on the World Trade Center in New York in 2001 could be dealt with relatively easily and without necessitating changes in the governance structure. The fifty—fifty profit sharing eliminates most sources of internal friction. It is in the interest of both partners to optimize the alliance, because the alliance is directly aligned with the individual interest of the partners. Other airline alliances which had to react to 9/11 had to discuss which partner would give up some of his flights in order to reduce the capacity to meet the low demand for flying after 9/11. Giving up a flight meant extra revenue loss to that partner. Because KLM and Northwest have a profit pool it did not matter whether KLM or Northwest gave up a flight. This makes it easier to deal with external sources of dynamics and takes away some of the inherent tensions in the alliance as well. It ensures that success and failure impact both partners equally. For joint ventures, the use of different profit sharing structures has been studied previously (Yan and Gray, 1994). Our next proposition proposes to extend this research to contractual alliances as well.

Proposition 2. In a contractual alliance, a fifty—fifty profit sharing arrangement will make the alliance governance structure more robust.

The third element relates to the element of governance bodies and particularly to their composition. In the KLM—NWA alliance a mix of specialists and generalists is involved in the alliance to strike the right balance between in-depth knowledge and integration across knowledge areas. The literature has pointed to the importance of alliance teams (Kale et al., 2001) but has paid little attention to the type of persons that should be members of alliance teams. The KLM—NWA case however suggests that the robustness of an alliance governance structure is influenced by the type of people involved. The governance structure is not only a formal structure: it depends critically on the type of people involved in the alliance team. A mix of specialists and generalists is especially important in a dynamic environment. It ensures that specific knowledge is available to deal with many different types of changes, while at the same time the generalists can help to place specific issues in the broader context of the alliance. The latter is important to prevent that specific issues start to dominate the alliance, whereas the former ensures that all relevant aspects of an alliance are covered. The next proposition underlines the importance of alliance team composition for robust alliance governance.

Proposition 3. When the team of alliance managers consists of both specialists and generalists the alliance governance structure will be more robust.

Personal unions are the fourth critical element and they also relate to the element of governance bodies. People play multiple roles in the KLM—NWA alliance and hence are able to connect different issues and spot potential clashes before they occur. Linking pin functions for example ensure a better flow of information. It also forces people to consider issues from different perspectives, ensuring that the alliance does not get ruled by narrow interests. In a dynamic environment it is necessary to weigh the pro's and cons of handling issues and to come to an effective decision soon. Multiple roles ensure that. This leads us to a proposition about the role alliance managers should play in alliances.

Proposition 4. When people fulfill multiple roles in an alliance, the alliance governance structure will be more robust.

Finally, the extensive use of informal channels stands out. This relates to the governance element of communication structures. Discussions about governance structures tend to focus only on the formal communication channels and procedures. The KLM—NWA case shows the importance of informal communication, next to the formal communication structure. In informal contacts on each hierarchical level plans can be tested, problems debated and solutions proposed before they are moved to a formal meeting. In a dynamic business environment informal communication will smooth out internal tensions and will ensure that problems are caught early on, making it easier to adapt to changes. Proposition 5 emphasizes the informal part of alliance governance.

Proposition 5. Extensive use of informal channels will make an alliance governance structure more robust.

Contribution, limitations, further research

The first contribution of this study lies in the fact that it is a first step to get a better insight into how internal and external dynamics and governance interrelate. It adds to the limited number of studies that have been done into this question and shows that there is scope for further development in this area. The second and perhaps most important difference from extant literature is that robust governance structures exist whereas the literature emphasizes that governance structures change frequently. Frequent governance changes may not be a necessity when the governance structure is specifically designed to deal with internal and external dynamics. Robustness may be achieved by the introduction of a virtual joint venture model. This model is based on a fifty—fifty profit share, problem-solving at the right level, the use of specialists and generalists in the alliance, personal unions between different parts of the alliance and an extensive use of informal channels for communication and decision-making. Especially the far reaching profit split has been instrumental in keeping the alliance robust. It has made it possible to adapt the alliance operations to changes in the business environment, without changing the governance structure.

This study also has some limitations. First, this case raises the question whether this is a unique situation or whether other companies can benefit from such an alliance model too. To answer this question research is necessary to

Table 2 Key figures airline alliances.

	Skyteam (Summer 2006)	Star alliance (April 2006)	Oneworld (October 2005)
Members	Air France/KLM, Northwest, Continental, Delta, Korean, AeroMexico, CSA, Alitalia, Aeroflot	Lufthansa, Singapore, United, Varig, TAP, Air New Zealand, All Nippon, LOT, US Airways, SAS, Thai, British Midland, Austrian, Thai, Air Canada, Asiana	British Airways, American, Iberia, Cathay, Qantas, LAN, Aer Lingus, Finnair
Number of destination	728	842	599
Passengers per year	373 Miljoen	425 Miljoen	243 Miljoen
Market share (2008)	20.6%	29.3%	23.2%

Source: websites of the alliances.

establish whether the governance characteristics of the virtual joint venture have led to more robust alliances in other cases as well. One issue is whether it is possible to define a fifty—fifty agreement in all alliances. KLM and Northwest have carefully scoped the alliance to come to a fifty—fifty deal, but this may not always be possible in other cases. For instance when a smaller company collaborates with a big company it will be much harder to establish a joint business based on a fifty—fifty profit share. These limits to the virtual joint venture model must be explored to get a better understanding of the usefulness and applicability of this model in different circumstances.

Further research may pursue four additional avenues. First, this case study identified five elements for more robust governance forms. Other studies might be dedicated at finding more of them. Second, research might address the question whether all these five elements need to be present simultaneously in order for a governance form to be robust. Will an alliance also be robust when it has implemented only a subset of these five elements? Third, obviously larger scale testing of the proposition advanced is necessary in order to provide definite empirical support for their validity. The propositions refer to elements that should be easy to measure in practice. So it should not be very difficult to conduct a large scale study. Finally, it may be interesting to study contingencies. Are the characteristics we described valid in all sectors? Do other alliance types like R&D alliances have other characteristics that make them robust? By answering these questions, we will gain a better understanding about how alliance governance structures may cope with internal and external dynamics.

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Appendix. Key facts and figures about alliances in the airline industry

Alliances have been an important part of the airline industry over the past 15 years. Many of these alliances are bilateral, but the most visible alliances are the alliance groups that emerged over the years. In 2002 there still were five of these: Wings (including KLM and NWA), Qualiflyer, Star, Skyteam (including Air France) and Oneworld. At the period that our case study ends three of these alliance groups were left. Table 2 gives an overview of the composition of these alliances at that time. Next to these alliance groups individual airlines have bilateral alliances as well.

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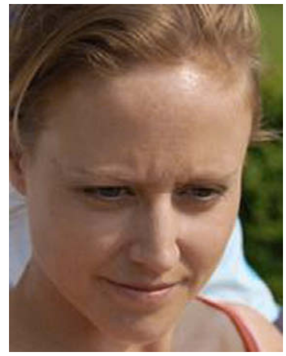

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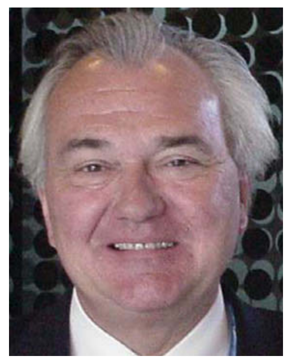

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