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Resource Dependence and Power-Balancing Operations in Alliances: The Role of Market Redefinition Strategies

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Abstract. This article studies power imbalances in alliances. More precisely, we seek to understand how – and under what circumstances – firms can leverage market redefinition strategies to change the structure of their markets and to reduce the bargaining power of actual or potential partners. Based on resource dependence theory, our analysis examines the causes of disproportionate power in alliances and describes various power-balancing operations that can be implemented to reduce dependence. In previous research, the presence of alternative sources that might reduce resource dependence has been given exogenously, and the set of power-balancing operations has been rather limited. Based on the alliance literature, the bargaining power literature and the market redefinition literature, we elaborate a theoretical framework to study the extent to which firms can leverage market redefinition strategies to shape the structure of their markets, in general, and reduce the bargaining power of partners, in particular. We illustrate our theoretical framework by means of multiple case studies and discuss our conclusions. Focusing on air-rail intermodal strategies, we emphasise that firms can proactively redesign their market boundaries to find new partners. These market redefinition strategies reduce dependence on powerful partners in the traditional market and offer new strategic partnership options for firms. In addition, we note that processes can be implemented to increase the quality offered by these new substitutes. Finally, we elucidate several theoretical and managerial implications regarding the role of market redefinition strategies in alliance development.

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Building on the resource dependence theory (RDT) literature (Hillman et al., 2009; Pfeffer & Salancik, 1978; Pfeffer, 2005), we study the issue of power imbalances in alliances (Casciaro & Piskorski, 2005; Xia, 2011). More precisely, we seek to understand how – and under what circumstances – firms can leverage market redefinition strategies to change the structure of their markets and reduce the bargaining power of actual or potential partners, in particular.

RDT is a particularly relevant framework because it integrates the concept of power (through dependence on a partner) into the study of relationships between actors and among alliances (Huxham & Beech, 2008). Several authors have analysed power imbalance issues from the perspective of RDT and specifically considered the case of alliances (Casciaro & Piskorski, 2005; Xia, 2011). Power imbalances can result from holding a unique position in an alliance network (Cook et al., 1983; Gnyawali & Madhavan, 2001; Polidoro et al., 2011), from having special access to critical resources (Medcof, 2001; Yan & Gray, 1994), or from one partner believing the alliance to be of little strategic importance (Inkpen & Beamish, 1997). Regardless of the source of the power

imbalance, the more powerful partner typically extracts more value from a partnership at the expense of the weaker partner (Friedkin, 1986; Klein et al., 1978). To avoid this situation, the weak firm can implement a set of actions; when applied to alliances, these "power-balancing operations" (Emerson, 1962) can involve using a third party to moderate the threat of the powerful partner (Bae & Gargiulo, 2004) or finding other partners to access these resources (Xia, 2011). In fact, the RDT view of alliances is agential because it proposes that a firm can manage power in its alliance portfolio (Huxham & Beech, 2008). We investigate new possible actions to reduce dependence on partners (and to reduce dependence on partners' power, as a consequence).

Recent contributions to the literature have emphasised the central role of partner substitutability in the instability of alliances (Greve et al., 2013; Katila et al., 2008; Rahman and Korn, in press; Xia, 2011). The presence of outside options clearly influences relationships between partners because of the possibility of partnering with other firms when an alliance fails. However, most articles limit the inquiry of partner substitution to the same market, although firms may have realistic options for partners in different markets. This limitation contradicts various studies finding that firms can proactively define their markets (Geroski, 1998; Kim & Mauborgne, 2005; Santos & Eisenhardt, 2009). By redefining its market boundaries, a firm can increase the set of its potential partners. A focal firm with more substitutable current partners is able to reduce the bargaining power of those partners. In fact, as a firm contributes to the convergence of markets (Hacklin et al., 2009; Pennings & Puranam, 2001), it may reduce its dependence on powerful partners and may find more profitable ways to access critical resources. It thus appears to be crucial to understand the links between market redefinition strategies and power-balancing operations in alliances. Thus, we formulate our research question as the following: How and under what circumstances can firms leverage market redefinition strategies to change the structure of their markets and, more specifically, to reduce the bargaining power of actual or potential partners?

Thus, based on the alliance literature, the bargaining power literature and the market redefinition literature, we elaborate a theoretical framework to elucidate how firms can leverage market redefinition strategies to generally reshape their markets and reduce the bargaining power of their current and potential partners, in particular. Methodologically, we draw from Hoffmann (2007) or Vaara & Monin (2010) and illustrate our theoretical framework through multiple case studies (Yin, 2009). Our aim is not to test the external validity of our framework but to verify its usefulness in illuminating the application of market redefinition strategies to reduce the bargaining power of actual or potential partners. The combination of several cases allows us to implement what Yin (2009) calls a "theoretical replication". In other words, our multiple case setting provides us with the opportunity to classify our cases to cover different theoretical conditions. In undertaking these efforts, we managed to yield results that support our theoretical predictions.

We conduct this research by studying air-rail intermodal strategies (i.e., alliances in which an airline cooperates with a rail operator to access cities that it cannot serve alone, whether for legal or economic reasons). Focusing on the French market, we observe that these intermodal alliances are created to bypass national airlines, whose power is exceedingly strong. By redefining the boundaries of their markets, foreign airlines seeking access to the French market have increased the number of outside options for purposes of selecting the most profitable option.

Our findings show that market redefinition strategies can be designed to reduce dependence on a powerful potential or actual partner (i.e., a national airline). From a theoretical perspective, we aim to extend the classical view of resource dependence and power in alliances. The traditional approach was

essentially deterministic because the weak firm's degree of freedom was limited. By giving the focal (weak) firm the opportunity to proactively shift its market boundaries, our new approach increases the number of options available to it. In fact, the focal firm can redesign its market to access new substitutes. As more comparable outside options become accessible, the focal (weak) firm reduces its dependence on the strong partner and can enter into more profitable partnerships. With this approach, we propose that firms can activate several parameters (e.g., shared goals and the number and quality of substitutes) to reduce their dependence on powerful partners and escape deterministic patterns in the alliances that they establish. In addition, we observe that firms can implement processes to increase the quality offered by these new substitutes. The introduction of these new "variables" into the assessment of resource dependence allows us to analyse alliance bargaining issues in greater detail.

This research contributes to three different streams in the literature. First, our study contributes to the existing literature on alliance formation and partner selection (Casciaro & Piskorski, 2005; Shah & Swaminathan, 2008). In addition to the traditional factors highlighted in the literature – including the complementarity and compatibility of partners – this research underlines the crucial role played by the existence of substitutes (Bae & Gargiulo, 2004; Greve et al., 2013). We show how firms can benefit from the availability of substitutes when negotiating a value-sharing scheme with a partner in an alliance. Second, our research contributes to the literature on bargaining power by analysing in greater detail the factors that impact the dependence between two partners (Bae & Gargiulo, 2004; Emerson, 1962). More precisely, we show that the number of outside options or substitutes is not exogenously determined and that firms can change the number of substitutes by changing their own vision and their definition of their market. We also highlight that substitutability is a multidimensional concept integrating not only the number but also the quality of substitutes. Furthermore, we contribute to the research focusing on power-balancing operations (Bae & Gargiulo, 2004; Emerson, 1962; Katila et al., 2008; Xia, 2011) by considering market redefinition strategies as a new type of power-balancing operation. Finally, we make a twofold contribution to the market redefinition literature. First, whereas the previous literature has studied how alliances can contribute to redefining market boundaries (Chiambaretto & Dumez, 2012; Lew & Sinkovics, 2013; Ozcan & Eisenhardt, 2009), we study the relationship in reverse by analysing how market redefinition strategies can impact alliances. Second, we underscore that firms can strengthen market convergence by implementing processes such as common norms or translation procedures to foster cooperation and interactions between firms in both markets.

THEORETICAL BACKGROUND

RESOURCE DEPENDENCE AND ALLIANCES

RDT's main objective has been to understand the behaviour of an organisation by replacing it within its environment (Pfeffer & Salancik, 1978). According to RDT, a firm's behaviour is essentially affected by how it accesses the critical resources that it needs in its environment. In fact, the concept of power plays a crucial role in RDT because control over the strategic resources in a firm's environment is essential (Ulrich & Barney, 1984)[1]. By accessing key external resources, firms attempt to reduce other firms' power over them while increasing their own power over others (Hillman et al., 2009).

This vision of firms posits that firms are not autonomous and are consequently highly interdependent. This interdependence leads to uncertainty

because a firm's strategies rely on the actions of other firms. To reduce this resource dependence, a firm can absorb scarce resources by through mergers or alliances (Drees & Heugens, 2013; Haleblian et al., 2009). In the remainder of the paper, we define an alliance as a voluntary arrangement between firms that involves the exchange, sharing, or co-development of products, technologies, or services (Gulati, 1998).

Nevertheless, this notion of resource interdependence is overly vague because it combines different dimensions that should be distinguished (Casciaro & Piskorski, 2005; Gulati & Sytch, 2007). The ambiguity results from the symmetry implied by the notion of resource interdependence, which is rarely observed. In fact, in most dyadic relations, one of the actors is more powerful than the other. Casciaro & Piskorski (2005) suggest distinguishing two dimensions of resource interdependence: power imbalance and mutual dependence. Power imbalance refers to the difference in the power of each actor over the other. This type of imbalance can be measured as the difference or ratio between the two dependencies (Lawler & Yoon, 1996). In parallel, mutual dependence is a means of assessing the existence of bilateral dependencies in a dyad. This dimension can be calculated as the sum or the average of actors' dependence on one another (Bacharach & Lawler, 1981).

This distinction is central because it changes the predictions of RDT, which traditionally posits that a high level of interdependence will foster cooperation between firms (using alliances or mergers). However, Casciaro and Piskorski (2005) emphasise that greater power imbalance in a dyad is associated with a reduced likelihood of creating an alliance. Indeed, a powerful partner has little incentive to create an alliance with a weak partner because such an alliance would mean that the powerful partner would share its competitive advantage for no reason, thus ceding its power and sharing its favourable conditions. However, when mutual dependence is high, both firms have strong incentives to cooperate because they have few outside partners. Based on these results, we posit that power plays a central role in alliance formation and stability. More precisely, we believe that power imbalances are crucial in explaining alliance dynamics.

POWER IMBALANCE AND BALANCING OPERATIONS

To understand power imbalances and mutual dependence variations, it is essential to first examine the definition of power. Until the 1960s, power was not formalised in any real sense. The commonly agreed-upon definition came from Weber, who defined power as the ability of an actor to realise his will even against the will of other actors. However, this vision of power was problematic because it implied that an actor is powerful without considering context. In his seminal contribution, Emerson (1962:32) noted that "power is a property of a social relation; it is not an attribute of an actor." This founding approach has completely altered our vision of power and has inspired many authors, including Crozier and Friedberg (1977) and DiMaggio and Powell (1983). In the remainder of this article, we adopt Emerson's vision of power because it allows us to clearly identify the different components and drivers of power. More precisely, following his approach, we can determine how a firm's power over a partner may evolve as parameters change.

Following Emerson's definition, actor *i* is not powerful; instead, actor i has power over another actor (actor *j*). The power of actor *i* over actor *j* (P*i/j*) can thus be defined as the amount of resistance on the part of *j* that can potentially be overcome by *i*. In fact, power implicitly resides in the other's dependence: the more dependent a partner is, the more power the focal firm has over that partner. The dependence of actor *i* on actor j (D*i/j*) is thus (1) directly proportional to *i*'s need for resources that are mediated by *j* and (2) inversely proportional to the number of alternative actors able to provide the same resources to *i*. One of the

1. The concept of resources in RDT and in the resource-based view can be understood as complementary. Although it is not the goal of this research article, we admit that combining these two theories "allows consideration of both an internally focused perspective of how organizations specify resource needs and an externally focused perspective of how organizations obtain these valuable resources." (Hillman et al., 2009, p. 1417) Some studies, such as Murray et al. (2005), have indeed shown the added value of combining these theories. However, in the remainder of this article, we will adopt mainly a RDT view of alliances.

key contributions of Emerson (1962) has been to link power and dependence in the following equation: P*i/j*=D*j/i*. If we apply these definitions of power to resources, then we observe that stating that actor *i* has power over *j* implies that (1) actor *j* needs actor *i* to realise its objectives and that (2) actor *i* has privileged access to resources that are critical to actor *j*.

As observed by Huxham and Beech (2008), there is an extensive literature analysing power in inter-organisational relationships. Several contributions have thus attempted to identify the sources of power in inter-organisational relationships (Bae & Gargiulo, 2004; Polidoro et al., 2011), the consequences of power in value-sharing processes and punitive actions (Kumar et al., 1998; Yan & Gray, 1994) and/or the impact of power on alliance dynamics (Das & Teng, 2000; Gnyawali & Madhavan, 2001). Whatever the type of contribution, the question of power in inter-organisational relationships has frequently been associated with the idea of imbalance (Huxham & Beech, 2008). Differences in terms of power (i.e., dependence) between two actors are central to explaining alliance dynamics (Cummings & Holmberg, 2012).

Considering that power imbalances can be harmful, Emerson (1962) defined a set of power-balancing operations. One option consists of reducing the cost of a relationship by reducing the resistance that can be overcome. By adjusting its goals towards those of the powerful partner, the weak firm suffers less from any power that may be exerted. The second option involves diminishing the importance of the goals that can be mediated by the powerful actor. In this case, the weaker firm diminishes the likelihood of a hostile intervention by the stronger firm. Finally, the third option is to cultivate alternative sources to reach the objective (for instance, by cooperating with other firms that have access to the same critical resources) to render the powerful partner less essential.

As applied to alliances, these power-balancing operations involve different solutions, such as using a third party to moderate the threat of the powerful partner (Bae & Gargiulo, 2004), implementing defence mechanisms (Katila et al., 2008), or finding other partners with access to these same (or similar) resources (Xia, 2011). The common idea underlying these contributions is to change the structure of the alliance network to reduce the bargaining power of brokers (Burt, 1992; Ryall & Sorenson, 2007). These actions reduce the centrality of the powerful partner in either the strategy or the network of the focal firm.

If these power-balancing operations are useful, they remain traditional in scope: the firm can avoid or bypass a partner but only within the same market or industry. In so doing, a firm does not have leverage on the number of substitutes because that number is set by the boundaries of the market. However, as has been shown in several key contributions (Greve et al., 2013; Xia, 2011), partnering or threatening to partner with substitutes may play a significant role in explaining the focal firm's alliance dynamics. Nevertheless, substitutes must be understood not only as alternative partners within the same industry but also as partners belonging to neighbouring industries or markets. It thus appears crucial to investigate in detail the role that can be played by market redefinition in power-balancing operations.

REDEFINITION OF MARKET BOUNDARIES

Alliances have always been related to strategies involving market redefinition. In fact, one of the first justifications for creating alliances was to enter new markets (Dussauge & Garrette, 1999; Kogut, 1988), particularly international markets (Pan & Tse, 2000; Tse et al., 1997). Historically, markets have been regarded as an exogenous element of the environment in which firms evolve (Venkatraman & Prescott, 1990). The structure and characteristics of the market are given to the firm, whose conduct is relatively predetermined (Porter, 1980).

In the 1990s, a new vision of markets emerged with the idea that strategy is not necessarily passive but can result from an original vision of the market (Hamel & Prahalad, 1994). According to this new approach, firms can proactively influence their environments by changing the rules of the industry (Araujo, 2007; Callon, 1998; Kim & Mauborgne, 2005). This modelling role is even stronger when a market is relatively new and undefined (Santos & Eisenhardt, 2009). The reality may be subtler because firms may simultaneously structure their environment while being affected by it (Geroski, 1998). The structure of the market is then the result of these interactions as firms contribute to the emergence and the strengthening of specific market boundaries through their actions (Depeyre & Dumez, 2008; Dumez & Jeunemaitre, 2010; Muniesa et al., 2007).

Alliances are among the actions implemented by firms to structure their markets. Alliances are particularly relevant when a market is emergent because they allow the first entrepreneurs to position their newly created market vis-à-vis other firms (Ozcan & Eisenhardt, 2009). By creating alliances or bundles of products, firms can combine neighbouring markets and blur existing boundaries (Bauer, 2005; Chiambaretto & Dumez, 2012; Gassmann et al., 2010). These strategies contribute to the convergence of existing markets and provide opportunities for changing market rules (Hacklin et al., 2009; Joshi et al., 1998; Lind, 2005; Pennings & Puranam, 2001). In fact, interindustry alliances not only change market rules but also improve the competitive position of firms within the new reference market (Lew & Sinkovics, 2013).

Combining these different insights, we observe that most solutions to reducing power imbalances in alliances have involved remaining in the same market. This traditional vision maintains markets or networks as elements exogenously given to the focal firm. In the following section, we create a theoretical framework to elucidate how – and under what circumstances – firms can leverage market redefinition strategies to change the structure of their markets and reduce the bargaining power of actual or potential partners, in particular.

THEORETICAL FRAMEWORK

INTRODUCING NEW VARIABLES TO ANALYSE RESOURCE DEPENDENCE

As discussed above, Emerson (1962) was one of the first authors to formally link dependence and power. He detailed the drivers of dependence between two actors in the following manner. The dependence, $D_{i/j}$, of actor *i* on actor *j* is based (1) on *i*'s motivational investment in goals mediated by *j* and (2) on the availability of these goals to *i* outside of the *i-j* relation. To reduce this dependence, RDT (Pfeffer & Salancik, 1978) posits that a firm will attempt to absorb this constraint using either a merger or an alliance (Casciaro & Piskorski, 2005; Xia, 2011).

Based on these studies, we can define the dependence of a firm *i* on a firm *j* using the following notation: $D_{i/j}(\alpha, r, s)$. We do not provide an algebraic formula linking the different components, i.e. α, r and s.; instead, our aim is to introduce new variables that play a role in the definition of this dependence. More precisely, we explain how dependence evolves when the values of the parameters change. In this notation, α represents the share of firm *i*'s goals that are mediated by a partner *j*; r measures the amount of resources that firm *i* wants to access using firm *j*; and represents the substitutability of alternative sources. In fact, s is an index measuring the number of substitutes and their quality. We propose to

define as follows: $s = \sum_{k=1}^{n} \beta_k s_k$. In this formula, s counts the number of substitutes, whereas β_k assesses the quality of the substitute s_k (ranging from 0 for low substitutability to 1 for high substitutability).

Based on Emerson, we can draw several conclusions concerning the evolution of firm *i*'s dependence. We are fully aware that these variables are not entirely independent. For instance, when share α of firm *i*'s goal that is mediated by *j* increases, it is likely that the number of resources *r* that firm *i* wants to access through *j* will also increase. However, the goal of this section is to implement a comparative-statics reasoning, which means that, *ceteris paribus*, we observe how the dependence of firm *i* evolves when only one of the parameters changes.

With respect to the effect of the share of *i*'s goal that is mediated by *j*, when *j* is more central to i's realisation of its objectives, firm *i* is likely to exhibit greater dependence on firm *j*. In other words, if *j*'s market is crucial to *i*'s international development, then *i*'s dependence on *j* will increase. Consequently, when α increases, $D_{i/j}$ should also increase.

The centrality of firm *j* can also be assessed through the number of resources that firm *i* seeks access to through *j*. Because firm *j* has access to a large number of resources that are central to firm *i*, firm *i*'s dependence increases. In other words, when *r* increases, $D_{i/j}$ also increases.

However, higher substitutability (in terms of resources or partners) reduces firm i's dependence on firm *j*. The existence of outside comparable solutions allows firm i to study other options in the event that j attempts to take advantage of its power. Consequently, when *s* increases, $D_{i/j}$ should be lower.

It is important to note that this substitutability index combines the number and quality of each substitute. Indeed, a higher number of potential substitutes indicates that firm *i* has higher bargaining power with respect to a partnership with firm *j*. Consequently, when *n* increases, $D_{i/j}$ decreases. However, the concept of substitutability should not be limited to a particular number of firms but should also account for quality issues. To be a credible alternative to partner *j*, a substitute must offer a level of quality that is similar to that of firm *j*. In other words, an improvement of the quality β_k of a given substitute also reduces $D_{i/j}$. We summarise the effects of these parameters in Table 1.

Table 1. The effects of parameters on the dependence of a firm i on a firm j

Parameters	Effect on Di/j(α,*r*,*s*)
Share of i's goals mediated by j (α)	Positive
Number of resources that i seeks access to using j (*r*)	Positive
Substitutability of alternative sources (*s*)	Negative
Total number of substitutes (*n*)	Negative
Quality of substitutes (β)	Negative

REDUCING DEPENDENCE THROUGH MARKET REDEFINITION STRATEGIES

Before explaining how market redefinition strategies can be used by firms, we return to how resource dependence generally influences the likelihood of alliance formation. Distinguishing among several scenarios, we investigate the

relevance for focal firm i of forming an alliance with firm j and the relevance of remaining within the same market.

The traditional approach: resource dependence levels and alliance formation

In this section, we focus on two components of alliance formation: the likelihood of creating an alliance and partner selection. We investigate the specific case in which firm i seeks access to resources to which firm j has exclusive access. This case is the most interesting case because it is the situation in which firm j has strong bargaining power when the firm i seeks to create an alliance. We study several scenarios to analyse the conditions under which an alliance is formed. The variations among the different scenarios are derived from the distinction made by Casciaro and Piskorski (2005) concerning resource dependence, which stipulates that it is crucial to draw a distinction between the positive effects of mutual dependence on alliance formation and the negative effects of power imbalance. Each dimension may take two values – low and high – such that we can generate four scenarios to structure our reasoning (Table 2).

Table 2. Effects of mutual dependence and power imbalance on alliance formation

		Mutual dependence	
		Low	High
Power imbalance	Low	Scenario 1 No alliance or alliance with low strategic risk	Scenario 2 Stable alliance with balanced power between partners
	High	Scenario 3 Unstable and unfair alliance for the weak partner (with current outside options)	Scenario 4 Unstable and unfair alliance for the weak partner (without outside options)

Scenario 1: Firms *i* and *j* have a low level of interest in one another's resources

The first scenario described in Table 2 is a situation in which each firm is moderately dependent on the other, with a low level of power imbalance. Thus, in this case, forming an alliance is not crucial for either firm's success. The low level of mutual dependence means that firm *i* will not be ready to make sacrifices to gain access to firm *j*'s resources. These resources are not essential for *i*'s success, and thus, there appear to be two solutions. If *j* decides to cooperate, then an alliance will be formed, but it will remain secondary for both firms *i* and *j*. Conversely, if firm *j* refuses to cooperate, then *i* will leave the negotiations and focus on other resources that are more strategic to its development.

Scenario 2: Focal firm i owns several resources to which firm j would also like to have access and vice versa

This scenario may occur when two firms each own a given set of resources and have high complementarities, which is frequently the case when both firms are of similar size. Under these circumstances, each firm wants to gain access to the other firm's resources. The bargaining process is relatively balanced because each firm has valuable resources to exchange with the other (Lehiany & Chiambaretto, 2014). Because firm *i* wants to access several resources through firm *j*, we can conclude that its dependence on *j* is high. However, because we observe the same phenomenon for firm *j*, we are in a situation in which both $D_{i/j}$

and $D_{j/i}$ are large. In this case, the relationship between firms *i* and *j* presents a high level of mutual dependence, and their power imbalance appears to be relatively limited. Consistent with Casciaro and Piskorski (2005), we can conclude that under these circumstances, an alliance with a fair sharing scheme should be created.

Scenario 3: Firm j's resources are more important to firm i than i's resources are to j

This scenario can arise under various circumstances. For instance, a size difference can clearly affect the relative dependence of two firms because the smaller firm will typically have fewer attractive resources to offer the larger firm (Ahuja, 2000; Baum et al., 2000; Vandaie & Zaheer, 2014). The presence of alternative sources for firm *j* yields a lower degree of attractiveness for the resources that firm *i* has access to. In this case, the share of *j*'s goals mediated by *i* is clearly lower than firm *i*'s share. The effect in terms of dependence is straightforward: $D_{i/j}$ is higher than $D_{j/i}$. In fact, the low level of $D_{j/i}$ reduces the mutual dependence of both firms while increasing the power imbalance in favour of firm *j*. Any profit-sharing scheme is likely to be unfair (Bae & Gargiulo, 2004; Cui, 2013; Friedkin, 1986), thus reducing the probability that a stable alliance between the firms will be created.

Scenario 4: Firm j's resources are important and are not easily substitutable for focal firm i's objectives

The absence of alternative sources for focal firm *i* to access firm *j*'s resources makes *j* a key actor: the centrality of its position in the realisation of firm *i*'s objectives allows us to characterise firm *j* as a broker (Burt, 1992) that benefits from exclusive access to critical resources. In this case, i's dependence on *j* is high because focal firm *i* does not have any outside options. This situation is similar to the previous scenario: $D_{i/j}$ is larger than $D_{j/i}$. However, the high level of increases the mutual dependence of both firms, but the increased power imbalance in favour of firm j reduces the likelihood of a stable alliance (Casciaro & Piskorski, 2005).

Redefining markets to reduce dependence on a powerful partner

Scenarios 3 and 4 are the most interesting, as they allow us to identify cases in which potential partner j benefits from significant power over focal firm *i*. Nevertheless, these two cases present different characteristics. In Scenario 3, it may be possible for firm *i* to find substitutes for firm *j*'s resources, but such substitution is not possible in Scenario 4. We now investigate the substitutability of resources in greater detail.

Traditionally, in the alliance and power literature, the issue of resources has been investigated at the level of a single market. For instance, focusing on the problem of partner selection, researchers have essentially studied the characteristics of potential partners within a single market (Bierly & Gallagher, 2007; Shah & Swaminathan, 2008). Several contributions have clearly integrated the possibilities for firms to cooperate with organisations from other industries, such as universities or research labs (Baum et al., 2000; Zaheer & George, 2004). However, these cross-industry alliances do not generally have an influence on final offers to customers and frequently remain in the initial stages of production, such as R&D (Garcia-Canal & Sanchez-Lorda, 2007; Santamaria & Surroca, 2011).

This restrictive view of the close environment of a firm leads to an artificial reduction in the alternatives that it considers (Cummings & Holmberg, 2009). In fact, there are many different ways to consider the market in which a firm evolves (Curran & Goodfellow, 1990): geography, technology, customer needs, and other

considerations. Depending on the criterion selected by the firm to define its market, the resources and consequently the strategies implemented will change. By redefining its market (either in terms of criteria or by extending boundaries), a firm can discover new opportunities and reduce the constraints that it previously confronted (Gassmann et al., 2010). These opportunities encompass new resources or new access to existing resources. Following this approach, the market is no longer exogenously given to the firm but is now the result of its vision and its strategic actions (Depeyre & Dumez, 2008; Muniesa et al., 2007).

The traditional reasoning related to working with an unavoidable partner involved reducing the importance of the goals mediated by that firm (Emerson, 1962). This reasoning relied on the assumption that the number of substitutes was exogenously given; in other words, a firm could not create new substitutes. The only parameters that might be changed were the share of goals mediated by the other firm (α) and the number of resources desired (r). This restrictive set of strategic options served to reduce firms' options and might thus have put them in unprofitable situations.

As discussed above, a new way of considering markets emerged during the 1990s (Hamel & Prahalad, 1994; Kim & Mauborgne, 2005). Firms can now proactively design their markets, shift their boundaries, and create new business models in accordance with their visions (Araujo, 2007; Depeyre & Dumez, 2008; Santos and Eisenhardt, 2009). As a firm redefines its market boundaries, it reconfigures the firms with which it competes and those with which it can cooperate (Gassmann et al., 2010). With more outside options available in the newly designed market, the focal firm has access to more substitutes. Applied to the *i/j* relationship, when focal firm i redefines its market with respect to firm *j* by integrating more substitutes (such as a firm from a neighbouring market), it gains access to more outside options and reduces its dependence on firm *j* (Lavie, 2007; Cui, 2013).

In other words, by redefining its market boundaries, focal firm *i* can extract itself from the four-scenario configuration proposed by Casciaro and Piskorski (2005). Shifting the market boundaries can be seen as a way to add a dimension to Table 2. Depending on its ability to cooperate with firms from neighbouring markets, focal firm i will be able to create (or not create) a fair alliance with partner *j* or with a partner from a neighbouring market.

RESEARCH METHODS

RESEARCH DESIGN AND EMPIRICAL SETTING

In this article, we draw from the methodology developed in Hoffmann (2007) or Vaara and Monin (2008) and illustrate our theoretical framework through a multiple case study (Yin, 2009). This approach does not aim to test the external validity of our framework but aims instead to test its usefulness and to shed light on how market redefinition strategies can be used by firms when selecting partners for a fair alliance. Such an approach is less conventional than the grounded theory-based inductive approach used in most alliance studies (Ariño & Ring, 2010; Lavie & Singh, 2011). Nevertheless, several authors have noted the usefulness of using case studies to illustrate and discuss theoretical insights (Bogenrieder & Noteboom, 2004; De Rond & Bouchikhi, 2004; Hoffmann, 2007; Vaara & Monin, 2010). As explained by Hoffmann (2007), this research strategy has several advantages relative to other methods. First, compared with inductive approaches, its theory development is better grounded in the previous literature and less dependent on the specific case studied. Second, as opposed to large empirical studies testing hypotheses with large samples, this research

method allows for an in-depth investigation of a phenomenon by considering the context of different firms. Finally, with a pre-existing theoretical framework, the case selection and data collection are more relevant to the research question than in a purely inductive study.

The cases studied allow us to implement what Yin (2009) calls a "theoretical replication". In other words, our multiple case study provides us with the opportunity to classify our cases to cover different theoretical conditions that we previously identified in developing our theoretical framework. These variations in the theoretical conditions (primarily regarding power imbalances and mutual dependence) are linked with different outcomes regarding both the formation of an alliance and market redefinition strategies. In so doing, we managed to allow different results to emerge but for predictable reasons that we have developed in our theoretical framework.

To study market redefinition strategies, we sought to investigate markets that were converging, i.e., markets whose boundaries were becoming blurry (Choi &Valikangas, 2001; Gassmann et al., 2010). This convergence could come from different drivers, such as technology and actors' strategies (Hacklin et al., 2009). In addition, to link market redefinition strategies to alliances, we also had to observe cross-industry strategies, such as alliances (Joshi et al., 1998; Stieglitz, 2003). Two converging markets were found that meet all the required criteria: the air and rail transport industries in Europe. Over the last twenty years, the development of the high-speed train (HST) has intensified in Europe (Givoni, 2006). With its increased speed, the train has become a reliable alternative to planes for short distances (less than 800 km), and competition between the two modes of transport has become fierce (Ivaldi & Vibes, 2008). From the consumer's perspective, the convergence of the two markets became official when legal cases clearly established that air and rail transport modes now belong to the same market (Chiambaretto &Decker, 2012).

Beyond this competitive view, some authors have noted the emergence of cooperative strategies between airline and rail operators (Givoni & Banister, 2006, 2007; Socorro & Viecens, 2013). These cooperative strategies refer to the notion of intermodality, which can be defined as "the characteristic of a transport system, that allows at least two different modes to be used in an integrated manner in a door-to door transport chain" (European Commission, 1997: 6). Thus, airlines may create alliances with rail operators either to substitute for unprofitable flights or to increase the size of the network using trains. These intermodal strategies have played a more central role in airlines' strategies as the number of intermodal passengers has significantly increased. For instance, at Paris-CDG airport, air-rail intermodal traffic increased by more than 250% between 1999 and 2014, whereas air traffic increased by less than 50% during the same period (Direction Générale de l'Aviation Civile, 2015). These market redefinition strategies are actively in use, and the question is emerging regarding the role of bargaining power in their formation.

DATA COLLECTION AND ANALYSIS

We collected data from primary and secondary sources to gather more information and to increase the quality of our data using triangulation techniques (Eisenhardt, 1989; Gibbert et al., 2008; Lincoln & Guba, 1985). Data were collected for the 2009-2012 period, when air and rail services were already considered to belong to the same relevant market. During this period, several intermodal agreements existed in Europe, and we had the opportunity to speak with the partners in more than 60% of the then-current intermodal agreements.

With respect to the primary data, we conducted 41 semistructured interviews in 24 different organisations (details in the Appendix). We attempted to diversify the institutions studied to account for the perspectives of all stakeholders

and to implement a "replication analysis" (Yin, 2009). Different types of organisations were analysed, such as airlines that use (or that have used) intermodal strategies, airlines that refuse to use intermodality, airports, and rail operators. We interviewed different categories of managers: country managers, alliance managers, marketing directors (depending on the firm), industry experts, and other managers. For each session, the goal was to interview the person in charge of entering into the intermodal alliance[2]. When interviewees offered the opportunity to meet other colleagues in charge of airline alliances or intermodal agreements, several interviews were then conducted within the same organisation. The duration of these interviews ranged from 35 to 135 minutes, with an average length of 73 minutes. We notified the managers that these interviews would remain confidential; to ensure confidentiality, notes were taken manually.

In parallel, we collected secondary data from various sources. We collected information on the airlines and the various alliances using press articles in specialised journals (Airline Business Magazines, Air Transport World, Air & Cosmos, etc.) and in economic journals referenced in databases such as Factiva. Official reports from the airlines and internal documents provided by the interviewees were also collected. Furthermore, legal cases allowed us to understand the legal stakes of considering airlines and rail operators as belonging to the same market. Finally, we attended various conferences at which airline executives explained their intermodal strategies. Secondary data were thus used to understand the context in which each organisation was operating and evolving at the time both to prepare for the interview and to verify the truth of the interviewees' declarations. In summary, secondary sources allowed us to gather more information and increase the quality of our data using triangulation techniques (Gibbert et al., 2008). The various sources are summarised in Table 3.

Table 3. Data sources

Category of source	Type of data	Number
Primary sources	Semistructured interviews	41
	Airports	4
	Intermodal airlines	13
	Non-intermodal airlines	11
	Industry experts	4
	Rail operators	4
	Rail infrastructure managers	3
Secondary sources	Press articles	50+
	Internal documents	12
	Official reports	16
	Empirical articles and books	11
	Legal cases	3
	Conferences	11

After collecting these elements, they were coded to test whether there were patterns in the decision-making process leading to the formation of an intermodal alliance (Miles & Huberman, 1994; Thomas, 2006). The reasoning was abductive in nature. The phases of empirical investigation were alternated with theoretical reviews. Two stages were identified in the analysis process. The first round of coding followed the literature and our theoretical background to identify the criteria used by airlines to select partners and redefine their markets. There was a strong emphasis on comments related to power issues and competitive position. Thus, this first round was essentially deductive. A second inductive round of coding was then undertaken to reveal the sources of power imbalances and the airlines' solutions to address these imbalances, such as market redefinition strategies. The combination of these different phases allowed

2. Depending on the organisation's structure and strategy, the person in charge of signing alliances may be at the international headquarters (VP Alliances or VP Network) or in the focal country (Country Manager, Commercial Director, Head of Network, etc.).

us to analyse our data with background theory in mind (Aliseda, 2006) while remaining open to new information.

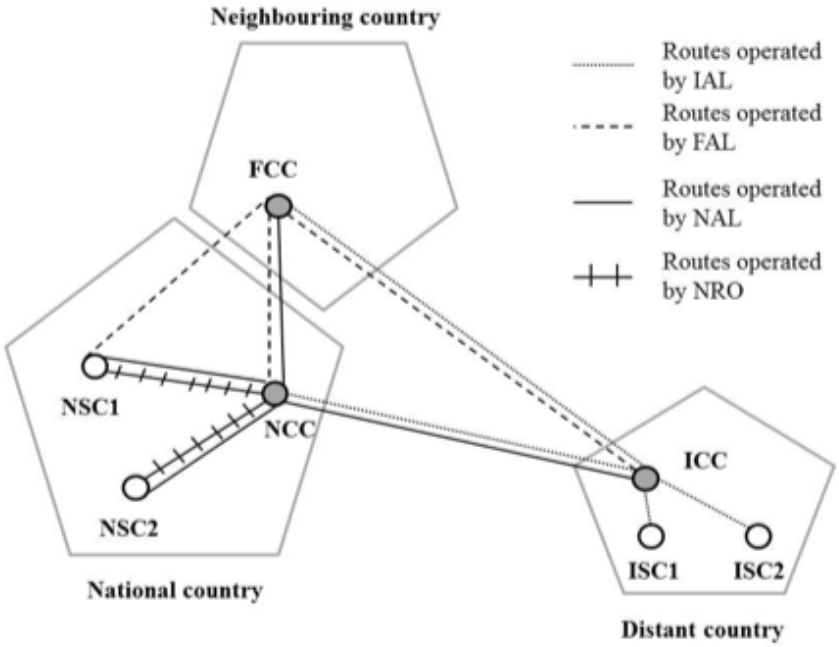
THE CONTEXT OF THE STUDY

Before developing our findings, we briefly describe the context of our study and provide some definitions. We aim to study how airlines seek to access cities in a given country. Several relevant parties interact in this geographic market. NAL is the national airline of the focal country and is the most powerful actor at the airport of the national capital city (NCC). This actor is particularly central because it is frequently the only airline that is permitted or able to carry passengers to a national secondary city (NSC).

Other countries that also have airlines surround this focal country. FAL is the foreign airline of a neighbouring country[3]. FAL has access to some secondary cities of the focal country and may act as a substitute to access these NSCs when passengers connect at the foreign capital city (FCC). Moreover, we note IAL[4], which is a distant country's international airline, which flies only to capital cities (NCCs and FCCs). The capital city of this international country is named ICC, whereas its secondary cities are called ISCs. Our research results from the study of several IALs; these studies are noted as IAL1, IAL2, and so forth. Finally, regarding the neighbouring market, we note that the national rail operator (NRO) of the focal country links the NCC to NSCs. These different actors and notations are summarised in Figure 1.

In our study, the level of analysis is related to an international airline IAL's choice of setting up an alliance and of redefining its market boundaries. Consequently, our level of analysis is the firm and more precisely we will focus our attention on an international airline IAL's various strategies regarding its alliances and market boundaries.

Figure 1. Configurations and actions of airlines and rail operators



3. FAL is a hypothetical name encompassing all the foreign airlines of a neighbouring country with direct access to some secondary cities.
4. IAL is a hypothetical name encompassing all the international airlines from distant countries which fly only to the capital cities.

FINDINGS

THE NECESSITY TO CREATE ALLIANCES TO ACCESS MARKETS

Most airlines aim to engage in a global network; in other words, airlines seek to develop their commercial presence worldwide. These expansion strategies can be explained by a set of factors related to costs and revenues. With respect to revenues, a large number of destinations increases the attractiveness of an airline compared with its competitors. This effect essentially results from network effects, such that every time a new destination is added, the number of potential routes increases exponentially (Goedeking, 2010; Vasigh et al., 2013). Beyond this purely mechanical effect, a larger network improves an airline's brand awareness throughout the world (Shaw, 2011). Notably, airlines are characterised by high fixed costs. Consequently, an extended network typically contributes to developing economies of scale and scope, improving the load factor on primary routes while decreasing the unit cost per passenger (Belobaba et al., 2009; Holloway, 2008). By increasing revenues and decreasing costs, large networks are expected to improve airlines' profitability.

When airlines have previously attempted to develop a truly global network on their own, most have failed (see, e.g., Pan American World Airways, which declared bankruptcy in 1991). It is actually difficult for a single airline to fly to all global destinations, either because of resource problems (e.g., financial resources or planes) or because they do not have traffic rights (Odoni, 2009; Park, 1997). To compensate for missing resources or traffic rights, airlines rely on alliances to access distant cities. A vice-president of an airline confirmed this reasoning:

> *"Our airline can't open routes to all cities. We have to consider the market of a foreign country globally and create an alliance with a local airline to improve our access beyond the city we serve."* (Marketing Vice-President, NAL)

Thus, airlines rely on alliances to surmount barriers to entry (Chiambaretto & Dumez, 2016; Gudmundsson & Lechner, 2006; Iatrou & Oretti, 2007). This vision of alliances is essentially relevant for complementary alliances (i.e., alliances that link the networks of two airlines to increase the number of destinations offered). These complementary agreements link partners' route networks by allowing a firm to place its code on flights to destinations that it does not serve. In this case, complementary agreements elevate an airline's presence by placing its airline code on more cities. Such complementary agreements might be assimilated to link alliances when complementary resources are combined in an alliance (Dussauge et al., 2000; Mitchell et al., 2002). These complementary alliances are generally contrasted with parallel alliances created to address over-capacity issues by improving capacity utilisation (i.e., the load factor) of a particular flight without extending the airline's routes and scope (Oum et al., 1996; Park, 1997). By contrast, parallel alliances might be associated with scale alliances when supplementary resources are added by partners (Dussauge et al., 2000; Mitchell et al., 2002). In our case, we focus on complementary alliances that offer an IAL access to secondary cities in the focal country.

PARTNER SELECTION AND BARGAINING POWER

Once an international airline has decided to create an alliance to serve a given city, it must select a partner (Bierly & Gallagher, 2007; Holmberg & Cummings, 2009). Depending on the composition of its previous alliance portfolio

(Hoffmann, 2005; Wassmer, 2010; Wassmer & Dussauge, 2012), an international airline IAL may encounter different situations.

If several airlines serve the targeted national secondary city (NSC1)

When a country is sufficiently large to host several domestic airlines or when the target secondary city is attractive to foreign markets, there may be several airlines that serve the secondary city. Returning to Figure 1, we take the example of NSC1, in which the secondary city is served by the national airline NAL but also by FAL, an airline from a neighbouring country. From the perspective of an international airline IAL, a choice between several partners is beneficial for at least two reasons. First, this option places the international airline IAL in a good bargaining position, and second, it allows IAL to find a partner that fits well with its own characteristics. For instance, partnering with FAL is a way to access secondary cities in the focal country without having to cooperate with the national airline NAL. Using the notations of the theoretical framework to describe this configuration to access the secondary city NSC1, the parameter *s* here takes a high value, s^+. Consequently, the international airline IAL exhibits a lower level dependency on the national airline NAL ($D_{IAL/NAL}(..., ..., s^+)$) and can cooperate with a substitute, such as FAL.

> *"A passenger living in NSC1 can fly to ICC [International Capital City] using our alliance with FAL. Indeed, FAL offers flights to four secondary cities in the [focal] country. In fact, the alliance allows us to increase our offerings to and from regional cities without having to use new resources."* (Country manager, IAL 11)

To select the partner, our interviews revealed that the international airline IAL considers several characteristics, such as network complementarity, technical and brand compatibility, financial health, and membership in a global alliance (such as Star Alliance, Skyteam, or Oneworld), among others. For instance, when a potential partner belongs to the same global alliance as the international airline IAL, the negotiation will be friendlier because the potential partners may already be cooperating in other markets. In addition, belonging to the same global alliance improves the reputation and trust of the potential partner. The process of sharing jointly created value is central to the bargaining process. Frequently, a partner is selected according to the share of benefits given to the international airline IAL. The more value a potential partner wants to retain, the lower its attractiveness is compared with other airlines.

When the national airline NAL exclusively serves the targeted national secondary city (NSC2)

For certain destinations, economic or legal constraints may lead to the presence of a single airline, referred to in this case study as NAL. If there is only a single firm that can access certain resources and if these resources are critical to other firms, then such a firm becomes a broker and can take advantage of its position. Consequently, it is unlikely that the national airline NAL will relinquish its advantage to another firm, particularly a competitor. This case can be modelled using the theoretical framework with the parameter s^- taking a smaller value . The implication is quite straightforward in this case with a higher level of dependence on the national airline NAL ($D_{IAL/NAL}(..., ..., s^-)$) Indeed, this situation was addressed and explained by the marketing director of IAL 5:

> *"We are clearly in competition with NAL on the route between the NCC and the ICC. There is no reason for them to cooperate with us and give us access to NSC2."* (Commercial Director, IAL 5)

If the international airline IAL must access these destinations, the national airline NAL clearly enjoys strong bargaining power because of the absence of substitutes. In other words, if these destinations are essential for the development of international airline IAL, then the parameter α takes a high value α^+. Under these circumstances, the dependence of the international airline IAL on NAL ($D_{IAL/NAL}(\alpha^+, ..., ...)$ increases. Consequently, the national airline NAL may agree to sign an agreement to provide access to these secondary cities, but the price paid by the international airline IAL will be high. The country manager of IAL 7 explained this feeding mechanism and the pricing policy:

> *"To feed international flights, airlines must sign partnerships with other airlines to bring passengers from secondary cities to the capital city [NCC] that they serve. If IAL, the international airline, has a pro-rating agreement with the national airline, then a reasonable share of the total price of the ticket is given to NAL. However, if it is a simple agreement, the national airline asks for a very high price (more than $500) for the feeder flight, which is absolutely not profitable for the international airline. These pro-rate agreements are signed only if the national airline agrees. However it doesn't have any incentive to sign a pro-rating agreement with a competitor."* (Country Manager, IAL 7)

In this configuration, the national airline NAL attempts to extract as much value as possible from the agreement. The more dependent the international airline IAL is, the higher the price that is charged for feeder flights. This agreement clearly reduces the competitiveness of IAL on long-distance flights, such that it may attempt to find more profitable solutions.

To be as exhaustive as possible, we note that this bargaining power is not always used by NAL. Indeed, NAL can encounter a symmetrical situation when it seeks to access secondary cities in foreign countries. If NAL exerts too much pressure on the IAL to access secondary cities, then NAL may confront the same problem in the IAL's country. Consequently, when both airlines (NAL and IAL) are dependent ($D_{IAL/NAL}(..., r^+, ...) \approx D_{NAL/IAL}(..., r^+, ...)$), the bargaining power of the partners is far more balanced. This situation was confirmed by one of the country manager interviewees:

> *"When we have to serve key markets, we sign special agreements with NAL (for instance, for the city NSC2). The price charged is high, but it is the result of a negotiation. In fact, it is a two-way negotiation, as we discuss the price to access the secondary cities using NAL, while NAL discusses the price to access our secondary cities using our airline."* (Country Manager, IAL 11)

When the international airline IAL has few destinations to offer to the national airline NAL, NAL's strong bargaining power typically leads to excessive prices. To remain profitable, some international airlines IAL have developed breakthrough strategies to access these destinations by bypassing the national airline NAL.

REDEFINING MARKET BOUNDARIES TO REDUCE DEPENDENCE ON NAL

Using market convergence to develop cross-industry offers

Over the last thirty years, the development of the HST in Europe has contributed to the convergence of air and rail transport (Campos & De Rus, 2009). For the first time, this technological convergence has led to the development of strong competition between the two transportation modes (Ivaldi & Vibes, 2008). Each time a new high-speed line has been inaugurated, air traffic has plummeted (Chiambaretto, 2013; Dobruszkes, 2011). This strong competition clearly affects the national airline NAL's flights to domestic destinations:

> *"NAL has been facing a central competitor over the last years: the high-speed train. We have lengthy experience with this competition, such that we can assess with precision the impact (in terms of market share) of the introduction of a new high-speed line. The high-speed train is particularly relevant for travel times below three hours. It clearly reduces our market share, and it is nonsense for us to compete on some of those routes."* (Strategy Vice-President, NAL)

The technological convergence is so strong that regulators now consider air and rail transport to belong to the same relevant market for distances below 800 kilometres (Chiambaretto & Decker, 2012). This notion of convergence can be considered from two perspectives: substitution or complementarity (Greenstein & Khanna, 1997; Pennings & Puranam, 2001). Indeed, the convergence of two markets offers new opportunities to create an offer that links products from previously separated markets (Dumez & Jeunemaître, 2004; Gassmann et al., 2010; Ghosh & Balachander, 2007).

This situation is precisely what occurred when the air and rail transport markets merged. Rather than considering the convergence only in terms of competition, some firms from both markets decided to cooperate (Givoni & Banister, 2006, 2007). Their new offers combine two tickets into a single ticket: a rail ticket from the secondary city to the hub and an airline ticket for the long-haul trip. To develop such offers, airlines and rail operators required an interface between the two markets. This interface consisted of two levels of infrastructures: intermodal airports and IT systems. In terms of building facilities, to make air and rail products as seamless as possible, intermodal airports have been developed with a train station inside the airport (Dobruszkes & Givoni, 2013). However, the real convergence arose from IT systems. To bring these intermodal offers to consumers, rail offers were "translated" into the language of airlines. Train stations were given airport codes, and the trains offered in these combined tickets have a flight number. This conversion task was necessary to make these products appear in the reservation systems of travel agencies.

> *"As we put our own airline code on the trains, our offer appears on reservation systems as if we were doing the entire trip on our own airline. This allows us to be better displayed in the reservation systems."* (Country Manager, IAL 2)

In a virtual sense, these combined products appear in reservation systems as if the entire trip is on the airline. Consequently, the international airline IAL might significantly increase the number of destinations that it serves within the country of the rail operator. The logic behind the agreement is exactly the same as that used for airline alliances. This situation is confirmed in the following extract:

> *"This partnership with [the national rail operator] NRO is coherent with our strategy, which consists of creating alliances with local partners in markets with a strong potential in secondary cities. It is important for an airline to have access to the entire market and not only access to the airport we fly to. Several markets are accessed using airline alliances. However, when it is not possible to cooperate with an airline, we use intermodal solutions and create alliances with rail operators."* (Alliance Vice President, IAL 9)

Using cross-industry offers to reduce dependence on the national airline NAL

Redefining market boundaries is complicated, and firms generally prefer to remain within the same market. Some airlines have been able to remain within their traditional markets and to obtain lower prices from the national airline NAL simply by threatening to cooperate with the national rail operator (NRO). Without needing to actually redefine its market, the international airline IAL has simply redefined its potential market in order to threaten the national airline NAL by increasing the number of its potential partners. In other words, redesigning the market boundaries increased the value of the parameter to . This strongly reduced the international airline's dependence on the national airline NAL (. Consequently, the national airline might agree to give better conditions to the international airline IAL. An example of such behaviour was explained by one of the commercial managers:

> *"For NSC 2, we explained to NAL that we could get passengers with the high-speed train. It improved our position to negotiate with NAL, and they agreed to lower their prices. That's precisely why we still fly with NAL and haven't developed any intermodal agreement."* (Sales Manager, IAL 1)

However, airlines sometimes have no choice and actually do redefine their markets. In this context, the main driver for market redefinition is the excessive power of the national airline NAL. Airlines clearly use alliances with rail operators as second-best solutions. Most airline managers confirmed that intermodal solutions are an alternative to a national airiline NAL's monopoly that has sufficient power to enable it to charge the international airline IAL high prices for an alliance. Even if the national rail operator NRO is also in a monopoly situation, its public status implies that it charges the same price to all airlines without any preference to avoid foreclosure issues. A manager of the national rail operator NRO confirmed this obligation:

> *"As a public monopoly, we can't refuse to cooperate with an airline that would like to become a partner. The price charged is the same for all partners; they just have to reach some targets in terms of number of seats sold." (Head of intermodal operations, NRO)*

Because the national rail operator NRO does not exert power like the national airline NAL, NRO's prices for an alliance are lower than those charged by NAL. This situation clearly results in the increased competitiveness of the international airline IAL. A country manager described the effects of this situation:

> *"In addition, since the price of a train ticket is lower than the price charged by [the national airline] NAL, we charge only a small amount of this price in the total price of the ticket. This clearly improved our competitive position compared to NAL on the route between the [national capital city] NCC and the [international capital city] ICC. With this agreement, it is easier for us to offer a cheap ticket than when we had to collaborate with NAL."* (Country Manager, IAL 7)

In addition, access to these destinations reduces dependence on NAL. These market redefinition strategies clearly minimise the possibility that NAL will exert power over the international airline IAL. In fact, as they shift market boundaries, these international airlines IAL have created substitutes that reduce the centrality of the national airline NAL. These airlines have not only found other sources to access these destinations but also reduced the share of their goals (i.e., destinations) mediated by NAL. In fact, because the national rail operator NRO serves destinations that the national airline NAL does not serve, these intermodal alliances have created new markets for some international airlines.

> *"Globally, this agreement has been fruitful for us. In fact, it even gave us the possibility to become a leader for destinations that we had previously neglected."* (Commercial Director, IAL 5)

However, these market redefinition strategies have limits. In fact, even if an effort has been made to change the rail product to fit airline standards (e.g., flight number, airport code), the product remains not as seamless as airline managers or passengers would like (Chiambaretto et al., 2013). Many operational issues remain unsolved, and these problems reduce the quality of substitution. The quality and compatibility of a substitute are important in the partner selection process, and at this point, the substitution is incomplete. Linking this observation to our framework, rail partners happen to be partial substitutes, i.e., partners whose quality parameter β is less than 1. As a consequence, as explained by an Alliance Vice-President, the HST currently remains a second choice.

> *"As the prices charged by the [national airline] NAL were too high, we turned to the rail operator NRO. Of course, it was a second choice because transferring from a plane to a train is not very seamless. We even have to broadcast a video on the planes landing at [the national capital city] NCC in which we explain how the transfer to the train must be done." (Alliance Vice-President, IAL 9)*

After having described how and why some international airlines have implemented air-rail intermodal strategies, we put our cases in perspective to observe redundant alliance structures and market redefinition behaviours.

DISCUSSION

INTERPRETING THE CASES WITHIN THE THEORETICAL FRAMEWORK

Thus far, we have shown that international airlines consider various key factors before deciding to redefine their market boundaries and signing an air-rail intermodal alliance. However, showing excerpts from a limited number of interviews may give the misleading impression that we are only showing part of the story. We might have selected the quotes that justify our ideas merely to tell a nice story. To be as transparent as possible, we show how our cases allow us to implement a theoretical replication (Yin, 2009). In other words, we classify our cases to cover different theoretical conditions. In so doing, we elicit different results, but for predictable reasons that are detailed in the discussion section below.

Our cases showed us that several key factors affected the bargaining power of the international airline IAL when negotiating with the national airline NAL: (1) the relative size between the potential partners, (2) membership in

NAL's global alliance, and (3) membership in the foreign airline FAL's global alliance. We then link these categories with the concepts of (4) mutual dependence, (5) power imbalance and (6) the presence of outside options in the current market (i.e., other potential partners offering the same resource). We thus classify our different cases along these dimensions and observe the implications in terms of market redefinition strategies in Table 4.

Several lessons can be drawn from this cross-case analysis. First, despite our theoretical framework and the predictions from Casciaro and Piskorski (2005), the presence of a high level of mutual dependence and a low level of power imbalance is not a sufficient reason to create an alliance. The presence or absence of outside options must be considered (Greve et al., 2013). Indeed, we observe that an international airline IAL will create an alliance with NAL only if there is a high level of mutual dependence with a low power imbalance and in the absence of outside options.

Second, we observe that airlines belonging to a global airline alliance will have access to substitutes for NAL. Consequently, they will prefer developing traditional airline alliances. Firms that are members of the same global alliance (Star Alliance, Skyteam, etc.) have a high level of mutual dependence with NAL or FAL because both firms have resources (i.e., destinations) that are valuable for the other, which is even more important when partners are approximately the same size. These firms can thus sign an alliance with NAL or FAL while remaining within their traditional market.

Conversely, independent international airlines IAL that are smaller than the national airline NAL are not attractive partners. Consequently, the level of mutual dependence is low, and the power imbalance is high. It is thus unlikely that the national airline NAL will agree to a fair alliance with airlines such as the international airline IAL. In addition, the absence of outside options in the current market puts them in a weak position. These firms thus have a strong incentive to redefine their market boundaries and to find other partners outside of their traditional market. These results confirm the results of Wassmer and Dussauge (2011, 2012), who showed that new alliance formations must take into account the existing stock of alliances (in this case, membership in a global airline alliance). Independent international airlines will thus want to redefine their market boundaries to find substitute partners in other markets.

THE EXISTENCE OF STANDARDISATION PROCESSES TO IMPLEMENT MARKET-REDEFINING ALLIANCES

It is simplistic to posit that firms can proactively redefine their market boundaries to find new partners. In fact, we previously noted that substitutability has two components: the number of substitutes (*n*) and their quality (β_k). As a firm redefines its market boundaries, it gains access to more potential partners, but the substitutability of such partners is lower than that of previous partners (Lew and Sinkovics, 2013). This market redefinition is frequently based on a new vision of the market – for instance, shifting from a technology to a product perspective. For instance, in our setting, airlines implementing intermodal strategies have shifted from a product vision (i.e., only firms that use airplanes are included in the market) to a needs vision (i.e., all firms that carry passengers from point A to point B within a reasonable travel time are included in the market). Consequently, the products in the newly integrated market present different characteristics that are not necessarily compatible with the focal firm's products.

Table 4. Cross-case analysis

	Empirical factors at stake in partner selection			Theoretical factors at stake in partner selection			Market redefinition strategy		
Cases	Attractive for the national airline NAL (size / status / complementary destinations)	Member of NAL's global alliance	Member of the foreign airline FAL's global alliance	Mutual dependence with NAL	Power imbalance with NAL	Outside options on the current market	Tradition airline alliance with NAL (same market)	Traditional airline alliance with FAL (same market)	Air-rail intermodal alliance (market redefinition)
IAL 1 IAL 4 IAL 8 IAL 10 IAL 13	Yes	No	Yes	High	Low	Yes	No	Yes	No
IAL 11 IAL 12	No	No	Yes	Low	High	Yes	No	Yes	No
IAL 3 IAL 6	Yes	Yes	No	High	Low	No	Yes	No	No
IAL 2 IAL 5 IAL 7 IAL 9 IAL 14	No	No	No	Low	High	No	No	No	Yes

The reasoning is identical for partner firms. New partners are not perfect substitutes for partners that belong to the restricted-view market. We thus considered this dimension by stipulating that for a given potential partner *k*, substitutability is assessed by β_k , which captures the quality of the substitution (e.g., in terms of compatibility). These compatibility issues have been central to the convergence of air and rail products. Even when firms attempt to foster product standardisation (e.g., by giving airport codes to train stations), substitutability is not complete, and extending to a neighbouring market generally remains a second choice.

However, our cases have shown that the substitutability of a partner is not exogenously given and that it can evolve. Firms from neighbouring markets can become better substitutes by implementing the appropriate processes. Indeed, when searching for a partner in a neighbouring market, a firm must ascertain that the interface between partners and markets will be as seamless as possible. Several strategies may be adapted to define new standards for the cross-industry alliance. If one of the industries is clearly more "advanced" (e.g., in terms of customer service), then the industry with the best practices will be used as a reference to establish new cross-industry standards. However, if there is no optimal solution between the two industries, then a compromise may be found by combining standards. Again, the bargaining power between the two partners will play a significant role in adopting these new cross-industry standards. The opportunity for one of the partners to cooperate with other firms to define standards will act as a credible threat in negotiations.

Ultimately, the consequence of this market redefinition strategy is a strong reduction in the international airline IAL's dependence on the national airline NAL. In fact, *ceteris paribus*, we reach a situation in which $D_{IAL/NAL}$ may even become lower than $D_{NAL/IAL}$. Under this configuration, the power imbalance would be inverted in favour of the international airline IAL, such that it may prefer cooperating with a substitute from a new market (the national rail operator NRO) rather than cooperating with the national airline NAL.

Considering the attractiveness of such market redefinition strategies, other international airlines may also decide to follow this strategy and bypass the national airline NAL. In so doing, they contribute to strengthening the convergence of these neighbouring markets. As more airlines redefine their market boundaries, managers and customers become accustomed to these new cross-industry alliances and products. These firms not only will have contributed to the emergence of these new market boundaries but also will have strengthened them through their own actions (Depeyre & Dumez, 2008; Dumez & Jeunemaitre, 2010; Muniesa et al., 2007).

CONTRIBUTIONS TO THE ALLIANCE, BARGAINING POWER AND MARKET REDEFINITION LITERATURES

To understand how and under what circumstances firms can leverage market redefinition strategies to change the structure of their markets and reduce the bargaining power of actual or potential partners, in particular, we built our study on three different literatures: the alliance literature, the bargaining power literature and the market redefinition literature. In this section, we will show our contribution to each field.

First, our study contributes to the existing literature on alliance formation and partner selection (Casciaro & Piskorski, 2005; Shah & Swaminathan, 2008). In addition to the traditional factors at stake – including the complementarity and compatibility of partners – this study underlines the crucial role of the existence of substitutes (Bae & Gargiulo, 2004; Greve et al., 2013). We show how firms can benefit from the existence of substitutes when negotiating a value-sharing scheme with a partner in an alliance. Weak firms can thus use the presence of

substitutes as a weapon to obtain better terms from a stronger partner. In addition, we show that firms do not have an exogenously given number of substitutes. When looking for or negotiating with a potential partner, a firm can redefine its market boundaries to artificially increase the number of potential partners and – as a result – potential substitutes. In so doing, a weak firm can either threaten a powerful partner that it will work with another partner to obtain better commercial conditions or actually collaborate with a firm from a neighbouring market.

Second, our research contributes to the literature on bargaining power by analysing in greater detail the factors that impact the dependence between two partners (Bae & Gargiulo, 2004; Emerson, 1962). More precisely, we show that the number of outside options or substitutes is not exogenously set and that firms can change the number of substitutes by changing their own vision and definition of their market. In addition, we highlight that substitutability is a multidimensional concept integrating not only the number of substitutes but also their quality. Taking into account the quality – and thus the credibility – of a potential substitute is essential when addressing issues of power and dependence between two partners. Finally, we contribute to the research focusing on power-balancing operations (Bae & Gargiulo, 2004; Emerson, 1962; Katila et al., 2008; Xia, 2011) by considering market redefinition strategies as a new type of power-balancing operation.

Finally, our contribution to the market redefinition literature is twofold. First, whereas the previous literature has studied how alliances can contribute to redefining market boundaries (Chiambaretto & Dumez, 2012; Lew & Sinkovics, 2013; Ozcan & Eisenhardt, 2009), we study the relationship the other way round by analysing how market redefinition strategies can impact alliances. We thus show that blurred market boundaries contribute to changing the bargaining power between potential partners within a market by increasing the number of potential substitutes. Second, we underscore that firms can strengthen market convergence by implementing processes such as common norms or translation procedures to foster cooperation and interactions between firms from different markets.

CONCLUSION

The main objective of this article was to understand how and under what circumstances firms can leverage market redefinition strategies to change the structure of their markets and reduce the bargaining power of actual or potential partners, in particular.

When encountering a powerful partner (e.g., because of its exclusive access to key resources), a firm can implement different power-balancing operations to reduce its dependence. Previous contributions have treated the existence of alternative sources for these resources as exogenously given, such that the set of power-balancing operations was rather limited. In this article, we emphasise the possibility that firms might proactively design their market boundaries, enabling them to seek new substitutes. These market redefinition strategies reduce dependence on powerful partners and offer new strategic options in terms of partnership for the focal firm. We also underscore how firms must implement standardisation processes in developing cross-industry alliances.

We can draw several theoretical and managerial implications from this research. From a theoretical perspective, we aimed to extend the classical view of resource dependence and power in alliances. Under the traditional view, the components of dependence are exogenously given. As a consequence, this approach was essentially deterministic because the degree of freedom for the

weak firm was limited. By providing the focal firm with the opportunity to proactively shift its market boundaries, our new approach increases the number of options available. In fact, the focal firm can redesign its market to increase its access to new substitutes. As more comparable outside options become accessible, the focal firm can reduce its dependence on a strong partner and enter into more profitable partnerships. With these contributions, we propose that firms can activate several parameters (e.g., shared goals, number and quality of substitutes) to reduce their dependence on powerful partners and escape from deterministic patterns in the alliances that they establish.

From a managerial perspective, this article encourages managers to adopt a broader view of their markets when selecting new partners. If firms remain within the traditional boundaries of the market, their options may be limited, and their alliances might quickly become unprofitable. However, as firms adopt a more global view, resource-dependent firms have an increased likelihood of finding partners that fit well with their needs. In fact, the central idea of this contribution is that it is possible to escape from powerful partners by jettisoning this deterministic view of dependence in alliances.

This study has several limitations that offer directions for future research. An initial set of limitations arises from our empirical background. It is important to note that market convergence has been possible in our case only because there was previous technological convergence (Hacklin et al., 2009). In other words, airlines have been able to find partners in the rail industry (market convergence) only because the HST previously existed and was offering reliable alternatives (technological convergence). The firms studied were not at the origin of this technological convergence. Instead, these firms seized upon the opportunity presented by the existence of new substitutes and transformed competitors into partners. This limitation is important, and it would thus be interesting to study a case in which a partner has contributed to technological convergence (and, secondarily, to market convergence) from the beginning. However, with respect to the empirical background, we note that the monopoly status of NRO has had a clear effect on its pricing policy and relative attractiveness. It is crucial for us to study whether these market redefinition strategies hold when new potential partners do not benefit from a special status (such as that of NRO in our case). Finally, with respect to our theoretical framework, we investigated the dependence between two firms globally. Although we indicated that the presence of several markets created some effects of cross-dependence, we did not detail the underlying mechanisms. Consequently, for further research, we suggest investigating the manner in which multimarket contact can affect the dependence and validity of our results.

Based on these conclusions, we believe that the additional study of market redefinition strategies in a resource dependence framework might be promising.

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APPENDIX A. INFORMATION REGARDING INTERVIEWS

Type of firm	Code	Interviewee(s)	Number of destinations	Member of the same global alliance as NAL	Member of the same global alliance as FAL	Intermodal
Airport	NCC	Head of intermodal operations Chief Engineer in charge of intermodal airports Strategy Analyst in charge of intermodality	-	-	-	-
	NSC	Head of intermodal operations	-	-	-	-
Foreign Airline	FAL	Sales Manager	215	No	Yes	No
Industry Expert	IE1	Industry Expert	-	-	-	-
	IE2	Researcher on intermodality	-	-	-	-
	IE3	Journalist (x2)	-	-	-	-
International Airline	IAL1	Sales Manager for the focal country	175	No	Yes	No
	IAL2	Country Manager	4	No	No	Yes
	IAL3	Sales Manager for the focal country	101	Yes	No	No
	IAL4	Sales Manager for the focal country	73	No	Yes	No
	IAL5	Commercial Director for the focal country (x2)	14	No	No	Yes
	IAL 6	VP Europe Commercial Director for the focal country	343	Yes	No	No
	IAL 7	Country Manager	36	No	No	Yes
	IAL 8	Country Manager	95	No	Yes	No
	IAL 9	VP Alliances (x2) Business Development Manager (x2)	92	No	No	Yes
	IAL 10	Country Manager	100	No	Yes	No
	IAL 11	Country Manager Head of external relations	66	No	Yes	No
	IAL 12	Country Manager	65	No	Yes	No
	IAL 13	Commercial Director for the focal country	376	No	Yes	No
	IAL 14	Sales Manager in charge of alliances	36	No	No	Yes
National Airline	NAL	VP Marketing VP Strategy Alliance Manager Strategy Analyst in charge of rail competition and intermodality (x2)	204	Yes	No	Yes
National Rail Operator	NRO	Head of intermodal operations (x2) Head of NCC Airport's train station (x2)	-	-	-	-
Professional Association	PA1	Country Manager (x2)	-	-	-	-
Rail Infrastructure Operator	RIO	Head of Strategy Head of intermodal projects in NCC Area Head of intermodal project in NSC Area	-	-	-	-

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