

**ACES EU CENTERS OF EXCELLENCE
GRANT DELIVERABLE**

GWU

AY 2011-12

**Geographic Scope Under Conditions
Of Confined And Connected Change
The Case Of Telefónica (Spain)**

Rafel Lucea

Geographic Scope Under Conditions Of Confined And Connected Change; The Case Of Telefónica (Spain)

Rafel Lucea

Abstract

Traditional explanations of MNE geographic scope formation fit somewhat uncomfortably with recent empirical and theoretical work in IB that suggests (1) that wholesale (not just gradual) changes in MNE geographic scope may be more frequent than previously thought, and (2) that managers' responses to a world increasingly characterized by random, unpredictable change are more experimental and less optimizing in nature than assumed in most models of international expansion.

In this paper we draw from studies portraying industries as dynamic networks, and from the literature on managerial cognition to provide a complementary explanation of the evolution of MNE geographic scope that reconciles the insights of traditional IB models with the questions raised by more recent studies in this field. We illustrate the proposed model through a detailed account of the internationalization process of Telefonica, the Spanish telecommunications company.

Existing IB theories have proposed that the path of MNEs' international expansion can be explained by existing institutional, cultural, economic and geographic differences across countries, and/or by the different bundles of resources and capabilities that they own. In both cases, geographic expansion is portrayed as a process by which the boundaries of the firm are *gradually and optimally* reconfigured.

In recent times, however, questions about the accuracy of such models have arisen from a variety of areas in IB. On the one hand, phenomena such as "born global firms" (Oviatt and McDougall 1994; Zahra 2005) and multi-country mergers and acquisitions have provided growing evidence that companies do reconfigure their geographic footprint in rapid and dramatic, not just gradual, fashion. On the other hand, studies in the co-evolutionary and cognitive traditions have highlighted that the world in which today's managers operate is so complex and uncertain that it is only under specific conditions that managers actually make the kind of optimizing, long-term strategic decisions assumed by current models. Thus, understanding the circumstances under which current models seem to be less accurate is an important initial step toward developing better theory.

In this paper we seek to contribute to IB scholarship by explaining how different environment-level dynamics may substantially disrupt established decision making processes at the organization level, resulting in alterations of the firm's geographic scope in ways that would not necessarily be anticipated by existing theories. In particular, we draw from the literature on business networks dynamics and from work on managerial cognition to suggest that theories of geographic diversification will be most challenged during periods of 'connected change' (Havila 1996). That is, during periods when the links defining the structure of a particular industry-network (broadly defined) undergo radical transformation. As found in previous research, the

cognitive maps that help firm managers anticipate the outcomes of potential lines of action become highly inaccurate under these circumstances (Barr, Stimpert et al. 1992). Without the luxury of previous experience to guide their decisions, and with the added uncertainty provided by the time pressure that is usually associated with environmental jolts (Meyer 1982; Meyer, Brooks et al. 1990), MNE managers are more inclined to engage in expanding the cognitive complexity of the firm, speeding up its decision making processes, and engaging in some type of strategic experimentation (Narayanan, Zane et al. 2011). As a consequence, it is during periods of connected change that international expansion decisions are more likely to depart from the gradual, system optimizing, long-range planning perspective that, at least implicitly, is incorporated in existing theories. Following phases of rapid and radical environmental transformation, managers and organizations engage in a process of urgent -and frequently explicit- sense making of the new structure of the industry. As their cognitive maps are re-developed, tested, and improved upon, managers become increasingly better able to estimate the far-reaching implications of a broader array of strategic alternatives, allowing them to choose the one that will deliver the best results for the organization under the new contextual circumstances. It is under the calmer conditions that define periods of "contained change" that we would expect current theories of international expansion to be better able to predict the evolution of the geographic scope of the firm.

The remaining of this paper is organized as follows: first with briefly review the two main approaches to explaining MNE geographic footprint. Then we summarize the concerns raised by IB scholars about the accuracy of these theories in world that, they argue, has changed in dramatic ways since these conceptual tools were developed. Next, we introduce the concepts of connected and contained environmental change, and follow up by developing a number of

propositions about how the geographic scope of the firm is likely to be altered under each of these scenarios. We finalize the paper by illustrating our propositions through a detailed longitudinal analysis of the international expansion process of Telefónica, the Spanish telecommunications operator.

Existing explanations of geographic scope configuration; challenges.

Existing IB geographic diversification theories are based on what Peng et al (2009) call the ‘strategy tripod’. That is, differences across national *institutions*, differences among firms’ *capabilities*, and the structure and economics of a particular *industry*. In spite of the considerable empirical support they have accrued over time, the validity and accuracy of these traditional explanations of ‘*where*’ and ‘*in what sequence*’ will MNEs expand has become under increasing scrutiny in recent times (Hadjikhani 1997, Cazorra 2011). Concerns about these models take primarily one of two forms. On the one hand, the prevalence of “innovative new ventures” or “born global” firms (Oviatt and McDougall 2005; Zahra 2005) suggests that the way in which firms expand abroad is *neither necessarily gradual nor follows a sequence of smaller-to-larger psychic distance*. Indeed, as evidence grows that a large proportion of startups in different industries and countries internationalize during their first year (Moen 2002), IB scholars have been prompted to amend existing theories of international firm expansion (Cuervo-Cazorra 2011) to provide a suitable explanation for this phenomenon. Although less explored in IB, we would argue that the current trend of mega mergers and acquisitions, frequently involving the integration of companies with operations in multiple countries in the world, falls in this same category.

On the other hand, research about the *mechanisms* that explain strategic decision making has also highlighted that managers are less far-sighted optimizers than typically assumed in current international expansion theories; particularly under high uncertainty conditions. For example, in his study on the evolution from a decentralized to a network structure in a MNE, Malnight (1996) points out that “rather than an immediate replacement [of the firm’s strategy], the transition involves adjustments responding to *then-existing* external and internal challenges and opportunities” (emphasis added). This perspective of managers as solvers of the immediate problems they face rather than long range planners is very much in line with the skepticism shown by authors in the evolutionary (winter 1990) and cognitive (Walsh 1995) traditions about overly rationalistic and intentionalistic models of organizational behavior. Along these lines, recent work from a coevolutionary perspective in IB (Koza and Lewin 1999; Flier, Van Den Bosch et al. 2003; Cantwell, Dunning et al. 2010), has also pointed out that the context in which managers have to make decisions today is one characterized by non-ergodic change. That is, a world in which future organizational behavior cannot be extrapolated from past experiences; a world that is too complex for managers to fully apprehend.

It is interesting to note that while one critical perspective focuses on internationalization outcomes and the other on the way international expansion decisions occur, both emphasize that the paradigm under which existing theories were developed seems to have experienced a fundamental shift. Understanding the contextual circumstances under which current models seem to be less accurate is an important initial step toward developing better theory.

Environments as networks; confined and connected change.

Scholars interested in the evolution of business networks have differentiated between two basic types of environmental change. '*Confined change*' describes periods of relative stability in the system. Stability, however, should not be conceived as a pattern of relationships frozen in time and space. In fact, the content and strength of the tie between the two parties to a relationship may experience considerable transformation over time. What provides stability to the system is the fact that changes at the dyadic level "remain within the dyad and are not received or acted upon by other actors in the network" (Halinen, Salmi et al. 1999). By contrast, '*connected change*' happens when alterations in a particular relationship are perceived and acted upon by other actors in that setting (Halinen, Salmi et al. 1999), potentially spreading in a 'domino effect' that substantially alters the structure of the system. As pointed out by Smith and Laage-Hellman (1992), the parties to a particular system of relationships may react in different ways to the original triggering event, increasing the level of entropy of the system as a whole, and further altering its original structure.

Characterizing MNEs and their environments as networks and depicting environmental transformation in terms of confined and connected change provides an avenue to think about the different types of challenges that today's managers are required to address. At the same time, it provides a conceptual link of how macro events trigger different response mechanisms at the organization level, and how these different response repertoires may influence the geographic scope of the firm. In the following section we examine how conditions of confined and connected change are likely to result in different ways of altering the geographic scope of the firm, and the influence this may have on the accuracy of current internationalization theories under each scenario. Figure 1 provides a summary of our arguments.

Geographic scope under contained change

The relationship between industry structure and various organizational aspects of the MNE such as its strategic orientation, the way it configures and deploys its resources internationally, and the development of the appropriate alignment and coordination mechanisms across countries, has been a well-studied issue by IB scholars (Panel I in Figure 1, for example, is borrowed from Malnight (1996)). However, how this relationship evolves under different kinds of environmental change (Panel II in Figure 1), or how it influences the evolution of the geographic scope of the firm (Panel III in Figure 1) are topics that have received far less scrutiny.

We suggest that in order to address these questions it is useful to consider the relationships between a firm and its environment from a socio-cognitive perspective (Daft and Weick 1984; Walsh 1995). In other words, it is necessary to consider that firm behavior is determined, in part, by the way in which its managers apprehend, process, interpret, and respond to the information they receive from the broader environment in which their firm operates (Thomas, Clark et al. 1993; Barr and Huff 1997). Given the cognitive limitations of the human mind (March and Simon 1958; Cyert and March 1963), managers develop simplified models of the firm and its relevant environment in order to make decisions in an effective and efficient manner (Gavetti and Levinthal 2000). These simplified models have been variously referred to as mental models, cognitive maps, or mental representations (Walsh 1995) and are built by making inferences of observed patterns of cause and effect (Fiske and Taylor 1991). The main value of managerial mental maps stems from the fact that they act as a cognitive shortcut that allows managers to efficiently filter irrelevant information, make sense of the crucial elements in their environment,

and to anticipate the likely results of undertaking one line of action or another (Starbuck and Milliken 1988). Another important feature of managerial cognitive maps is that they are relatively stable over time (Reger and Palmer 1996). Because their main purpose is to expedite the selection and interpretation of crucially important bits of information, these cognitive structures are only altered when the actual results of a particular decision significantly differ from the expected outcomes (Huff, Huff et al. 1992).

Juxtaposing this socio-cognitive perspective of firm behavior with the earlier discussion on types of environmental change, it seems reasonable to assume that during periods of contained change the mental maps espoused by managers in a particular industry will provide an accurate representation of the environment in which the firm operates. The high predictive power of previous experiences would allow MNE managers conduct detailed analysis of alternative expansion strategies and choose the one that offers a higher potential payback. It will also be during periods of contained change that differences across countries and across firms bundles of resources will experience the least change, facilitating the task of comparing across alternatives and selecting the optimal one.

It is important to note that despite the stability that characterizes the system during phases of contained change, each international expansion decision represents an alteration of the structure of the network in that some links are severed while others are established. To the extent that this change remains contained to particular area of the network, no major alteration of the status quo should be expected, requiring only minor adaptations to existing mental maps. But since each decision introduces some element of uncertainty, MNE managers can only anticipate a limited number of steps ahead, making their international expansion decisions not only optimizing but also gradual.

The following propositions summarize how international expansion decisions are likely to be done under conditions of contained change and its implications for current IB models:

P1a. In periods of contained change MNEs will predominantly reshape their geographic scope in a gradual, current-system optimizing manner

P1b. Current theories of the MNE will be most accurate in explaining the evolution of the geographic profile of firms during periods of contained change than in periods of connected change

Geographic scope under connected change

In line with insights provided by scholars studying environmental jolts (Meyer 1982; Meyer, Brooks et al. 1990), connected change episodes can be further divided into two sub-phases. An initial one of environmental turmoil ‘where the world as we know it comes crashing down’, and a subsequent one of stabilizing change ‘where substantial tremors are confined to specific parts in the system, and decrease in severity and frequency over time’. Because the mechanisms underpinning strategic decision making have been seen to differ in each of these sub-periods, we also treat them separately.

Turmoil phase. Wholesale transformation in a given system can be originated by changes in the behavior of particularly salient actor such as bold aggressive behavior by a particular competitor, or by events that simultaneously affect the totality of the organizations in a particular field, such as drastic regulatory or technological change. As existing relationships between parties are severed and others become established, the relative value of the resources owned by a company may suffer significant shifts, and capabilities and organizational routines that once were the foundation of the company’s competitive advantage may quickly become strategic liabilities. Characteristic of these early stages of connected change episodes is the high level of uncertainty

that accompanies them. Indeed, the direction, the magnitude, the speed, and the duration of change are unknown to firm managers. Even previous experiences of environmental turmoil provide them no guidance as to what might be an appropriate line of action in the current circumstances. Descriptions of the characteristics and implications of episodes of environmental turmoil bear striking parallelisms with the portrayal that some authors have recently made of the milieu in which MNEs operate (Cantwell, Dunning et al. 2010; Dunning and Lundan 2010). As noted above, the increase in the number of economic actors in the global arena, their geographic dispersion, and the multiple ways in which they may engage with one another not only requires higher levels of cognitive complexity from today's managers but also facilitates the conditions under which non-ergodic change may occur.

As changes in the environment of an organization occur, the extent to which existing mental models reflect reality drops precipitously (Hedberg and Jonsson 1977; Barr, Stimpert et al. 1992; Reger and Palmer 1996). Lack of accuracy does not, by itself, trigger an automatic updating of managerial mental maps. In fact, research on strategic cognition has repeatedly confirmed the pervasiveness of organizational cognitive inertia (Hodgkinson 2005), and its sometimes devastating consequences (Tripsas and Gavetti 2000). Reconsideration of one's existing mental models, however, has been correlated with changes in the environment that are perceived as fundamental threats to the organization. While one hypothetical course of action would involve using current maps until the environmental transformation has abated and managers can more easily figure out the structure and appropriate competitive rules in the new situation this is an alternative firm managers can rarely afford (Eisenhardt 1989). Indeed, competitive and shareholders pressures force managers to make decisions and commit substantial firm resources before they know whether a particular technology will become the new industry standard, or

even before their clients can articulate their demands (D'Aveni 1994). In the absence of cognitive maps that are consistentⁱ with a rapidly changing reality, managers engage in what has been named “adaptive sensemaking” processes (Bogner and Barr 2000) that, we suggest, play a central role in explaining the dramatic transformations in geographic scope that many MNEs experience during early phases of connected change episodes.

The cognitive breakdown associated with turmoil phases does not mean that managers need to develop new mental maps from scratch. In fact, some broad knowledge about the regulatory, technological, and product market space, as well as an understanding of the most basic distinguishing values of one’s firm remain. They do, however, need to replace cognitive “anchors” that inform competitive behavior (Bogner and Barr 2000). Managers have been found to rely on three main mechanisms to do so: broadening of the cognitive complexity of the firm, speeding up decision making, and engaging in experimental behavior. While a detailed review of these processes is beyond the scope of this paper, we will briefly describe each of them, pointing out their likely influence on the reconfiguration of the geographic scope of the firm.

Building cognitive complexity. Building cognitive complexity involves broadening the scope of information that the firm sifts through and the number of lenses through which incoming data is interpreted. Since one of the consequences of environmental turmoil is that formerly relevant bits of information become of no value while some other environmental cues gain in importance, firms favor “lightening” the filters they had been using for the sake of efficiency. Increasing the level of cognitive complexity of a company is generally achieved by bringing in new managers from other industries, firms, or backgrounds, by shifting current managers’ positions, by increasing cross-functional collaboration, by enhancing organizational communication channels, or a combination of the above (Dearborn and Simon 1958, Fiol 1994, Nonaka 1994). The goal of

these various moves is to increase the amount and variety of information being noticed, as well as the variety of viewpoints employed to make sense of it. While the development of common understandings is viewed as a lengthy process that involves intense personal interaction among the members of a team, casting a broader net for information capture and interpretation is seen as a necessary condition for the development of mental maps that help navigate the new environment. In the context of decisions related to the alteration of the geographic scope of the firm, emphasis on broadening the cognitive complexity of the firm may result in the identification of new opportunities and threats in current and potential foreign markets. Whether these opportunities are the result of the changing environment or of noticing already existing information that was being filtered out by the old mental maps, added cognitive complexity is likely to provide new information about the ideal geographic scope of the firm.

Speeding up decision making. Environmental dynamics in high-velocity, or hypercompetitive, industries resemble those of a much broader variety of industries during the turmoil phase. Indeed, hypercompetition occurs in industries where fast and dramatic contextual change has become institutionalized (Bogner and Barr, 2000). As such, it constitutes but one specific case of the broader set of environmental dynamics that we intend to represent in this paper. However, research in this special type of scenario offers us a glimpse of how decision making is carried out in fast changing environments and what the likely implications with regards the reconfiguration of the geographic scope of the firm during this turmoil phase are. Management studies in hypercompetitive industries (Eisenhardt 1989; Eisenhardt 2008) have shown that decision making in these contexts is done in a more expeditious way than in slower-paced industries. Managers in high velocity industries frequently employ a very specific set of tools to accelerate the formulation and implementation of decisions. These include reliance on real-time

information, use of quick comparative analyses, institutionalization of quick conflict resolution procedures, and reliance on a small set of experienced advisors (Eisenhardt 1990). In spite of these accuracy mitigating mechanisms, making rapid decisions under high uncertainty also leads to more frequent and broader shifts in the intended strategy and organizational architecture of the firm (Bogner and Barr 2000). To the extent that geographic redeployment of the firm's tangible resources may be deemed vital for the performance and survival of the firm, we would expect to see the geographic scope of the firm to change particularly fast and in more dramatic ways during the turmoil phase.

Experimental behavior. The high uncertainty associated with turmoil phases, and the impossibility to resort to previous experience requires that managers learn as quickly and as economically as possible about their environment even as it is being reconfigured. In this context, proactive action becomes the most efficient way to learn (Nonaka 1994) and even shape (Weick 1995) a firm's environment. Taking action under these circumstances, however, involves committing firm resources to endeavors that may not provide a positive return (D'Aveni 1994). Hence, in order to simultaneously maximize learning and minimize risks, firms engage in a variety of "low cost probes" (Brown and Eisenhardt 1997; Bogner and Barr 2000) such as the launch of a broader set of products, services and prototypes (Schrage, 1999), or the establishment of portfolios of alliances and joint ventures. While probing one's product-market has been found to help managers learn about their changing environment without assuming large risks, it would seem logical that probing one's geographic-market might deliver similar results. Doing so, however, might lead to considerable alterations of an MNE's geographic scope in ways not anticipated by current theories of the MNE.

In sum, phases of environmental turmoil render the cognitive anchors of existing mental maps irrelevant. At the same time, competitive pressures make “wait and see” alternatives not only unadvisable but also extremely difficult to carry out. As a response, managers employ “adaptive sense making” processes in an attempt to quickly redevelop their cognitive structures while seizing any opportunities that arise in their changing environment. Implementing these adaptive sense making processes, we argue, may have important consequences for a firm’s geographic scope.

P2a. It will be during the turmoil phase in periods of connected change when managers will resort most to the use of adaptive sense making processes, including broadening the cognitive complexity of the firm, accelerating decision making and engaging in experimental actions.

P2b. The three processes at the core of adaptive sense making offer the potential to rapidly and radically alter the geographic scope of a firm. The more managers engage in adaptive sense making, the larger and faster the reconfiguration of an MNE’s geographic scope is likely to be.

P2c. Current theories of the MNE will be least accurate in explaining the evolution of the geographic profile of firms during the turmoil phase in periods of connected change

Stabilizing phase. Episodes of connected change are usually represented as dramatic in nature and short in duration (Meyer, Brooks et al. 1990). They are not, however, instantaneous. And, while the broad outlines of a new dominant design or a new business paradigm (Anderson and Tushman 1990) may emerge rather quickly, its finer aspects may take a longer time to develop. This transitional period linking the effervescence of the turmoil phase with the more stable and predictable structure of relationships that defines periods of contained change is what we call the stabilizing phase. From a cognitive perspective, transitioning into the stabilizing phase is characterized by an increase in the acceptance of some of the basic anchoring (Bogner and Barr

2000) concepts about an industry. These would include the mutual recognition among the main competitors and collaborators, a sense of the boundaries of the industry, a modicum of agreement about the main attributes of the product-market space, a general understanding of the dominant technologies, and cognizance of the roles played by the various types of actors in the industry.

At the level of the organization, transitioning into the stabilizing phase also represents a shift in the way strategic decisions, including those altering the geographic scope of the firm, are made. Indeed, while the adaptive sense making efforts prevalent in the turmoil phase tended to be firmly localized at the TMT level, long-term organizational performance requires that the mental maps of *all* of the members of an organization be aligned and articulated in a coherent framework usually referred to as the organization's dominant logic (Bettis and Prahalad 1995, Walsh 1995 Hall 1984; Barr, Stimpert, Huff). Developing a dominant logic is as much a cognitive, as a social and political process (Kaplan 2011) that involves simultaneous efforts in sense-giving, sense-making, and issue-selling (Narayanan et al 2011). As top managers start to identify the basic cognitive anchors defining the new environment, they transmit (sense-giving) these embryonic representations (Gioia et al 1994) to the rest of the organization. However, rather than accepting them at face value, these representations are compared with the ones produced by individuals in lower echelons who also engage in active interpretation (sense-making) of the events taking place both inside and outside of the firm. Since this comparison rarely results in a perfect overlap, a process of "upward issue selling" (Dutton et al 2001) ensues. It is through this continued interplay between actors at various levels in the organization that a negotiated overarching organizational logic emerges and eventually becomes institutionalized in the form of organizational routines (Feldman and Rafaeli 2002).

We would expect that the efforts associated with the development of a new dominant logic affect the geographic scope of the firm through two related mechanisms. On the one hand, as better information about decisions made during the turmoil phase starts to emerge, the direction or extent of earlier strategic moves may be questioned. This, in turn, may trigger considerably large correcting changes. For example, limited due diligence is characteristic of mergers and acquisitions carried out at times of fast environmental reconfiguration (Aiello and Watkins 2000; Angwin 2001; Cullinan, Le Roux et al. 2004). As middle managers in the acquiring firm engage in the actual process of integrating and taking control of the target company, they start to gain a broader and deeper understanding of its actual operations and become better able to evaluate whether the expected gains of the acquisition will materialize. To the extent that the gap between expectation and reality is sufficiently large, the acquiring company might decide to resell parts or the whole of the recent acquisition. On the other hand, dramatic strategic shifts are frequently associated with a reordering of the sources of power, networks of alliances, and mechanisms of governance inside the firm. If decisions made during the turmoil phase considerably alter the political balance of the firm, we might expect that the factions whose influence has increased will try to implement changes that reflect their specific understanding of the new environment (Gupta and Govindarajan 2002) and/or further consolidate its power base (Kaplan 2008). For example, designating a specific region as "the" new growth market is likely to improve the status of its managers and their influence in determining the future course of the firm. It is important to highlight, however, that these reversals in the strategy of the firm, occur (1) in an environment of slowing environmental change, (2) under strong intra-organizational pressures to develop a dominant logic (Prahalad and Bettis 1986; Narayanan, Zane et al. 2011), and (3) also under strong inter-organizational pressure to develop an industry-wide logic or "industry recipe"

(Spender 1989). As a result, it is to be expected that dramatic shifts in the strategy and geographic scope of the firm will decrease in intensity and frequency as the stabilizing phase approaches the beginning of a period of contained change.

In sum, transition from a phase of dramatic environmental and organizational change into a phase where the rules of the game are well established does not occur automatically. Phases of stabilizing change are transitional periods during which all actors strive to develop new and well-functioning mental maps of their new environment, of their new organizational arrangements, and of the fit between the two. During this period of adjustment, changes in the geographic scope of the firm may still be large and swift but gradually decreasing in frequency and magnitude. As mental models become increasingly reliable, managers also gradually revert to a logic of gradual, optimizing, and deliberate geographic scope alteration in line with existing IB theories. We summarize these ideas in the following set of propositions:

- P3a. Following phases of environmental turmoil, managers at all levels in the organization actively engage in the process of construing a new organizational logic. As the new dominant mental model becomes more reliable, changes in strategic orientation and organizational architecture will become minor and less frequent.
- P3b. As a new business paradigm and organizational dominant logic emerges, alterations of the geographic scope of the firm will become increasingly gradual and piecemeal, and will follow a logic of performance optimization within the parameters of the newly developed mental model.
- P3c. As the new organizational and institutional logic becomes more consolidated we would expect to revert to a situation of contained change where existing theories of the MNE provide an increasingly good guidance of the determinants of geographic scope configuration.

Illustration – The internationalization of Telefónica

Having described our conceptual model in the previous section, we turn now to providing an illustration of how the three mechanisms operate by analyzing the internationalization process of Telefónica, the Spanish telecommunications company. Telefónica made its first committed international foray in 1990 with the acquisition of CTC of Chile. In the 20 years since then, the company pursued an international expansion strategy that has led it to today's presence in 26 countries, and to ranking consistently among the largest 100 companies in the world.

The first step in our enquiry into Telefónica's internationalization process was to identify the main phases of Telefónica's corporate history. We did so by contrasting three different sources of information. First, we asked a number of senior managers that had been at Telefónica for more than 20 years to describe the most significant milestones of the company. Second, we reviewed the presentations made by Telefónica leadership to its employees and investors since 2000. Given our focus on the evolution of the company's geographic profile, we paid particular attention to the sections explaining the trajectory of the firm since its initial international experiences in the early 90s. And third, we used the company's considerably detailed annual reports to trace Telefónica international acquisitions, sales, profits, number of telephone lines, and employees by country since 1987. All three approaches showed extreme consistency in identifying three events that punctuated the configuration of the firm's geographic profile: (1) the acquisition of CTC in 1990, which represented the first extension of the company's geographic footprint, (2) the launch of Operación Veronica in 2000, by which the company obtained majority ownership in most of its Latin American operations, and (3) the acquisition of O2 in 2005, which signaled Telefónica's commitment to becoming one of the Europe's premier

players, as well as consolidating its strategy as an integrated –as opposed to a pure play- telecommunications operator.

Having identified these three crucial moments in the recent history of the firm, we set out to establish the sequence of events that occurred just before, during, and immediately after each one of them. In building the narrative that Telefónica managers developed and ultimately justified these momentous decisions, we classified the various central components according to their level of analysis and type.

Event 1 – First steps abroad

Until the acquisition of CTC of Chile in 1990 the focus of Telefónica's management had consisted, primarily, in "fulfilling the company's contract with Spain." This involved balancing the not always complementary goals of the company's private investors, growth and profitability, and those of the Spanish government, who saw Telefónica as a means for national economic development. In a European context dominated by incumbent telecom firms mostly owned by state governments, having to address this tension between the interests of different types of stakeholders forced Telefónica to develop specific capabilities that would prove extremely valuable during its first phase of international expansion.

Following the integration of Spain into the EC in 1986, Telefónica faced the prospect of industry deregulation and liberalization and the loss of its monopolistic status in its home country. As a consequence, of a two-pronged strategy was pursued. On the one hand, Telefónica stepped up its efforts to provide a broader and better service to its customers in Spain. On the other, it started taking minority stakes in other telecom companies abroad "on the basis of their profit potential". In parallel with the announced market reform in its home region, a strong privatization,

deregulation and liberalization push was taking place in Latin America under the auspices of the IMF. As the region sought to transfer public assets into private hands, Latin America became the main (*and almost only*) area of opportunity for any telecommunication company intending to expand abroad in the 90s. This regional privatization frenzy attracted not only Telefónica but also most large telecommunications companies from Europe and North America. Compounding the uncertainty generated by these changes, two technological revolutions hit the telecommunications industry in the early 90s: the rapid diffusion of wireless telephony and, shortly after, the emergence of broadband data transfer and the internet.

This sea change in the global regulatory, technological, and competitive landscape of the industry shaped Telefónica's leaders conviction of the need to transform the firm; a transformation that would produce a much more competitive, customer-oriented and larger Telefónica. Witness of this emphasis on corporate transformation and international growth are the repeated mentions about the need to "adapt to the new market reality" in all of the annual reports in the 80s and early 90s, the separate reporting of the performance of its international operations as early as 1994, and perhaps more tellingly, the explicit change in the mandate of Telefonica Internacional S. A. (TISA). Indeed, the appointment of Ignacio Santillana, as Chief Executive Officer of TISA in 1988, was intended to replace the industrial projection of the previous stage with an investment policy in foreign operators, based on strict profitability criteria, management quality and exploitation of operational synergies.

However, the process by which international growth was ultimately achieved was not, *in the beginning*, a meticulously planned and executed one. In spite of its independence and lofty goals, TISA remained a very small operation until the mid 90s which forced their staff to play multiple

roles in the early acquisition processes, and to informally “borrow” resources and expertise from its parent company on a regular basis.

A process perspective of geographic scope reconfiguration. The momentous regulatory, technological, and competitive changes that the telecommunications industry experienced in the late 80s triggered a profound reconfiguration in the network of relationships established among the various players in the industry -including operators, regulators, equipment suppliers, and individual and corporate customers. As such, this period can be comfortably classified as one of connected change.

Telefónica’s initial response to these changes was focused on defending its autonomy and organizational independence. It did so by simultaneously erecting important barriers of entry into its own home market, and by seeking growth in foreign countries. However, Telefónica’s process of international expansion was not the result of a careful and detailed long-term planning process. Rather, the first steps of Telefónica into the international arena are better characterized as a sequence of loosely connected decisions that seek to take advantage of opportunities as they arise and *where* they arise. In this sense, the mental map that later on would guide the ulterior expansion of Telefónica in the region was being built through a process of trial and –sometimes- error. As the contours of an international expansion model started to emerge (“the Telefonica way of expanding internationally”), a variety of alignment and coordination mechanisms started to develop in order to coordinate cross-border operations. Indeed, this initial process of concerted sense making slowly gave way to a more systematic approach to entering new markets. For

example, as the number of acquisitions grew, so did the level of specialization and the size of the staff at TISA.

Event 2 – Deepening the commitment in Latin America

As the wave of privatization and liberalization swept across the region, Telefónica proceeded to invest around \$10 billion in the 10 years following its acquisition of CTC. In most of these ventures Telefónica was one of three partners in a consortium – the other two typically being a financial institution and a local partner. This model of international expansion presented a number of advantages, including limited risk in each investment, access to local connections through the local partners in each country, and the possibility of spreading the company's footprint at a much faster pace than would have been possible had Telefónica tried to enter each market by itself. However, it also presented a number of shortcomings among which lack of flexibility, slow response time, and virtual impossibility to carry out concerted cross country strategies in the region became an increasing hindrance for sustained growth and profitability.

During the 1990s, the telecommunications industry experienced a number of developments that put a premium on the integration of the activities of telecommunications operators. While these developments affected most regions, they were arguably more marked in Latin America. From a market perspective, countries at different levels of development started to reduce the once large differences in the telecommunications services available to their citizens. This trend became even clearer with introduction of mobile telephony in the mid-90s and the explosion of digital data transmission and Internet towards the end of the decade. Indeed, the industry maturity gap across countries decreased considerably not just in terms of available infrastructure or market

saturation, but importantly in terms of the sophistication of end-users. From a regulatory perspective, the industry as a whole it became increasingly deregulated and liberalized pushing firms to operate and succeed according to the rules of competitive markets. For example, the ‘grace period’ during which regulators allowed buyers of the newly privatized companies to continue operating as a monopoly in many countries in Latin America came to an end towards the end of the decade. In addition, the rules that were established to orchestrate competition in the various countries in this region and also in Europe followed a path of increasing convergence. In sum, between-country differences, especially within the major regions, decreased steadily in this decade facilitating the standardization of products and services across borders and bringing about the prospect of substantial economies of scale.

Telefónica’s response to this evolving landscape was to deepen its commitment in the Latin American market. It did so by launching an aggressive program called “Operation Veronica” which consisted in acquiring Telefónica’s partners’ stakes in the region. Over a period of just six months, the company invested an additional \$20 Billion and ended up controlling between 75% and 100% of the capital in its major ventures in the region. Shortly after Operation Veronica was officially concluded, Telefónica embarked in a major re-structuring of its, until then, fairly decentralized organizational structure. Under the new order, eight business units –mobile telephony, fixed telephony, broadband, media, internet providers, call centers, yellow pages, and b2b- were created. Each unit was headed by a senior VP that reported to the company's CEO and had a global mandate. While on paper the reorganization along global business units attempted to improve the efficiency of the firm, the process of separating the assets, personnel and services was not always an easy one and it required a considerable effort to establish the appropriate coordination mechanisms across the various business units.

A process perspective of geographic scope configuration: The changes in Telefónica's broader environment in the years leading to operation Veronica were certainly fundamental and far-reaching in their consequences. However, according to insider accounts and to the opinions of industry experts, the broad direction in which the industry was heading was somewhat less uncertain than it had been in the mid-80s. That is not to say, by any means, that managers in this industry were not facing considerable levels of uncertainty. Nevertheless, the fundamental relationships amongst the main institutions shaping the telecommunications industry displayed higher stability than it had been the case in the late 80s. For this reason, we would think of this as period of contained change.

Telefónica's reaction to this (more predictably) changing scenario was almost a textbook one, as it strove to gain control of its operations in order to implement a much more integrated strategy. In contrast with the rapid and somewhat experimental moves that characterized the initial expansion in Latin America, the planning and execution of Operación Veronica was a lengthy and carefully designed process. For example, a new unit was assembled for the specific purpose of designing this high-stakes operation. This unit, formed by a relatively small but highly powered group of Telefónica's managers, was led by the company's CFO and was shielded from the day-to-day pressures of the ongoing business of both TISA and Telefónica during the 18 months that it operated.

The level of sophistication required of the successful execution of Operación Veronica reflects that, by the late 90s, Telefónica (1) possessed a very deep knowledge of the actors and dynamics in the region, and (2) that the relative stability of the environment allowed for the kind of careful, long-term, performance optimizing calculations implicit in existing theories of international expansion.

Event 3 – Doubling the international bet... in a weekend.

The late days of the 20th century and beginning the 21st were marked by the incredibly fast growth associated with the dot com phenomenon. Telecommunications providers convinced that the demand for broadband access would increase exponentially incurred very substantial debts to expand and improve their networks. Similarly, companies that were vying for 3G licenses in Europe leveraged themselves to extremes not known until then. This growth euphoria came abruptly to an end in March of 2000 with the sudden withdrawal of investor's confidence that led NASDAQ to lose 80% of its value in a period of one and a half years. In 2002 many of the operators that had invested in last-generation licenses in Europe also started to recognize that they would never recoup the money they had invested and were forced to make multimillion provisions for their lost value. The burst of the internet bubble had very substantial ripple effects not only for telecommunications providers but also for more distant types of players. Indeed, in addition to the disappearance of a large proportion of Internet startups, many large equipment manufacturers experienced crippling losses that led to their demise or to being acquired at fire sale prices by other players in the industryⁱⁱ. Retail investors were also dramatically affected by the destruction of value associated with this process, prompting a marked decline in day-trading activity, the shift to alternative investment instruments, and a temporary withdrawal from the industry. Even universities granting computing related degrees saw their enrolments decrease temporarily.

While the institutional and competitive shake up of the industry in the early years of the 21st century certainly captured much of the attention of what was happening in the telecommunications industry, an equally important transformation was taking place in its technological environment. In particular, the increasing convergence between fixed telephony,

mobile telephony and data transmission strengthened the competitive position of those operators with positions in all three segments. The combined effect of these environmental changes would lead to a frenzy of consolidation in the industry. This process would arguably peak in 2005 when a record \$285 billion was spent in mergers and acquisitions in the industry. As expressed in a prominent telecommunications magazine in 2005:

“This industry consolidation and acquisition activity is spawned by important factors such as regulatory developments, technological change, economic growth, and market stability, according to a Fitch Ratings report. [...] these important factors are aligned in a manner that could provide motivation for a continued increase in consolidation or acquisition activity”. Business Wire, 3/14/05

The first stages of this deep transformation in the telecommunications industry environment coincided with the implementation of Operation Veronica at Telefonica. Nevertheless, neither the transcendence of the events nor the demise of Juan Villalonga, the company’s Chairman and the architect of some of the company’s most aggressive moves, altered Telefonica’s renewed commitment to the Latin American region nor the organizational restructuring that had already been approved. As some industry specialists noted of the new Chairman Cesar Alierta:

“In truth, Alierta is at the helm of a vessel whose course is still being charted by the winds of the bygone Villalonga era - and Alierta seems content to let them blow.”

As most other major players in the industry, Telefonica contributed to this consolidation trend by acquiring Czeski Telecom of the Czech Republic, and O2 of the UK and taking a 5% stake in China Netcom, at the time the second largest fixed line operator in that country during 2004 and 2005. The financial, strategic, and organizational implications of the O2 deal, in particular, presented Telefonica’s leadership with a set of important challenges. Indeed, the \$31 billion cash offer that Telefonica made O2’s shareholders was financed exclusively by issuing new debt. This

resulted in doubling, almost overnight, the total debt of the firm; a move that financial analysts punished by lowering Telefonica's debt grade. Strategically, the acquisition of O2 not only represented entering the two largest European markets –UK and Germany- but also a substantial influx of new knowledge about how to commercialize mobile telephony services in a region that was substantially more mature than Latin America, and much more competitive than Spain. Finally, Telefonica's managers were faced with the problem of fitting two very different organizational cultures, serving two very different regions, and possessing two considerably different sets of technological and market expertise. Rather than integrating the O2 operations into the mobile division of Telefonica, it was initially left to continue to operate in a more or less independent manner for about one year. In 2007, following the merger of the legal entities that contained the fixed and mobile telephony business divisions, Telefonica reorganized its operations in three different regions: Spain, Latin America, and Europe. While this reorganization was the formal recognition that the competitive dynamics in each geographic area required a different approach, it also highlighted the need for tightening the coordination across regions and for transferring knowledge within the organization. Building such alignment and coordination mechanisms proved a complex task in what had become a solid Fortune 100 company, and involved employing a multiplicity of approaches including the creation of the position of 'director of coordination, development, and strategy' with direct oversight of the three regional units, the creation of a corporate university, and the establishment of coordination working groups and task forces on a variety of aspects of the business.

A process view of geographic scope configuration. By all accounts, the changes that affected the telecommunications industry in the early 2000s were profoundly transformative not only of the relationships between telecommunications operators, but also of the relationships among a broad variety of players in the industry; a period we would qualify as of connected change. As this process unfolded, the boundaries of the newly formed conglomerates changed in increasingly fast and dramatic ways.

Telefonica, for example, entered six new countries in Europe and Asia, decreased the relative importance of Latin America in its portfolio by one third, and became a major contestant in two continents in a period of just 12 months.

Tellingly, this dramatic transformation of Telefonica's geographic scope was not the result of grand and detailed strategizing. As per our informants' accounts, this process would be better thought of as the outcome of juxtaposing a number of decisions that, while fulfilling the dominant objective of continued growth, were seen at the time as one of several potentially possible moves. Three important aspects permeated the momentous decisions made during this period. First, the severity and speed of the transformation of the industry made well-established organizing procedures no longer relevant:

"[...] the main criterion we followed in our acquisitions [at the time] depended on whether we felt in our gut that we could manage that operation given the limited time that we had to do any due diligence" Mr. Fernandez Valbuena, Chief Strategy Officer, Telefonica. Interviewed by the authors in October 2010.

A second aspect that had a crucial influence on the reconfiguration of the geographic scope of the firm was that, as in the early nineties, the pursuit of growth superseded

considerations about potential organizational fit or geographic complementarity.

Indeed, both in our interviews and in the press releases of the time, we gathered ample evidence of the feeling by Telefónica's leadership that in periods of tumultuous change opportunities for growth might appear literally anywhere, and that they should be seized (almost) independently of their fit with the location of current operations. The following quotes exemplify this sentiment:

"[...] Latin America was 'over' at the time; there was little more to buy there. Spain was doing very well and we wanted continue growing and, to the extent possible, diversifying our portfolio." Mr. Fernandez Valbuena, Chief Strategy Officer, Telefonica. Interviewed by the authors in October 2010.

A third important feature that emerged from our analysis of Telefonica's behavior during this period was the reciprocal influence that international expansion decisions and emerging mental models had on one another. As indicated above, changes in the structure of the industry and in the generally accepted principles of behavior and competition, made the mental maps espoused by the main players in the industry increasingly unreliable. This lack of business compass would facilitate strategic experimentation and, simultaneously, set the foundations for the new mental maps that would guide corporate and industry behavior in the future.

In the case of Telefonica, the acquisition of Czesky telecom and 02 took place under conditions of high contextual uncertainty. With the formalization of these acquisitions the top management teams of all three companies engaged in a process of discovery and self-reflection aimed as much to figuring out the set of rules that would guide the future of their relationships, as to understanding how being part of a larger entity altered their strategic possibility set in the industry. An interview carried out in March

2006, Peter Erskine, former CEO of O2 and the head of Telefonica's European operations after the merger provides some evidence of this process. In commenting about the potential convergence of DSL (cable broadband) and mobile business he stated:

“Interestingly, reveals Erskine, “before Telefónica came on the scene, O2 had been starting to think there might be a strong customer offering if we could put mobile together with DSL. And now, bingo, the DSL business in Germany gives us a chance to test that. And Czesky is doing the same: they have merged their fixed and mobile business. It's a good opportunity to test our hunch that DSL and mobile is a strong offering. [...] We're looking at partnerships, we're looking at all models. [...] Frankly what we going to do for the next little while is learn from Germany. [...] If it works we'll form views as to the right model.” (2006). O2 converges with Telefónica. Global Telecoms Business. London.

Short of being an isolated instance, this sentiment of discovery also permeated his comments on other areas of the newly formed group:

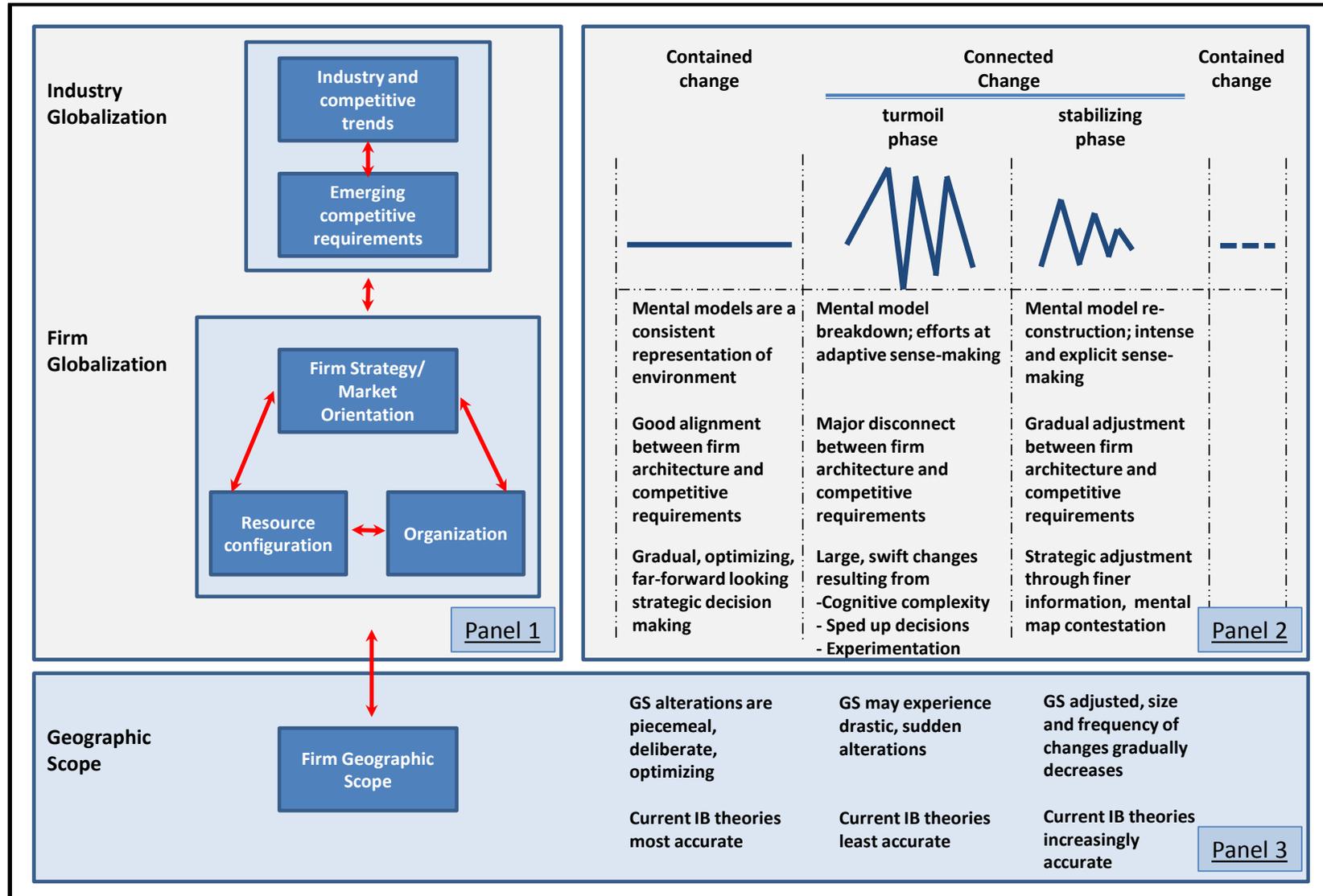
“Being sisters, or brothers or cousins, they're being very helpful. What we're able to do is learn about programming, and what media might work. That's helping us down that space. “We're starting to [share experiences]” says Erskine. “The differences are still emerging. We're probably a bit more focussed on data than they are. We're sharing thinking about 3G and the right way to use 3G.” (2006). O2 converges with Telefónica. Global Telecoms Business. London.

In sum, as suggested in our conceptual model, the reconstruction of managerial cognitive maps (Barr, Stimpert et al. 1992), and organizational routines at the new Telefonica was a gradual and iterative process. A process by which the results of decisions made under very uncertain circumstances were closely monitored and pondered, and helped shape the firm's new cognitive maps. And these maps that, in turn, would inform subsequent strategic choices.

Conclusion

The process by which the geographic boundaries of the firm evolve over time is a topic of central concern to the field of IB. Traditional IB theories have emphasized the influence of external (cross-country differences) and internal (differences in capabilities across firms) factors to explain the different internationalization paths taken by different MNEs. However, recent scholarship has questioned the gradual and performance-optimizing portrayal of international expansion decisions implicit in established IB theories. In this paper we sidestep the ‘how accurate’, *in toto*, current theories are. In contrast, we propose that it is more productive to explore the boundary conditions under which they are likely to provide robust or weak results. In particular, we hypothesize that during phases of contained change current theories will be most accurate. In contrast, episodes of connected change are likely to significantly reduce the accuracy and usefulness of the mental maps that managers employ to make sense of their environment. It will be during these periods, when managers are likely to engage in adaptive sense making behavior, when we are likely to see the predictive capacity of current internationalization models decrease. Given the dramatic transformation that the global arena has experienced in the last thirty years, we contend that increasing the specificity about the environmental, organizational, and individual conditions under which international expansion decisions are made, should be the starting point for expanding our theoretical toolbox.

Figure 1. Geographic scope under conditions of confined and connected change



References:

- Aiello, R. J. and M. D. Watkins (2000). "The fine art of friendly acquisition." Harvard Business Review **78**(6): 100-+.
- Anderson, P. and M. L. Tushman (1990). "TECHNOLOGICAL DISCONTINUITIES AND DOMINANT DESIGNS - A CYCLICAL MODEL OF TECHNOLOGICAL-CHANGE." Administrative Science Quarterly **35**(4): 604-633.
- Angwin, D. (2001). "Mergers and acquisitions across European borders: National perspectives on preacquisition due diligence and the use of professional advisers." Journal of World Business **36**(1): 32-57.
- Barr, P., J. L. Stimpert, et al. (1992). "Cognitive Change, Strategic Action and Organizational Renewal." Strategic Management Journal **13**(Special Issue): 15-36.
- Barr, P. S. and A. S. Huff (1997). "Seeing isn't believing: Understanding diversity in the timing of strategic response." Journal of Management Studies **34**(3): 337-370.
- Bogner, W. C. and P. S. Barr (2000). "Making sense in hypercompetitive environments: A cognitive explanation for the persistence of high velocity competition." Organization Science **11**(2): 212-226.
- Brown, S. L. and K. M. Eisenhardt (1997). "The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations." Administrative Science Quarterly **42**(1): 1-34.
- Cantwell, J., J. H. Dunning, et al. (2010). "An evolutionary approach to understanding international business activity: The co-evolution of MNEs and the institutional environment." Journal of International Business Studies **41**(4): 567-586.
- Cuervo-Cazurra, A. (2011). "Selecting the country in which to start internationalization: The non-sequential internationalization model." Journal of World Business **46**(4): 426-437.
- Cullinan, G., J. M. Le Roux, et al. (2004). "When to walk away from a deal." Harvard Business Review **82**(4): 96-+.
- Cyert, R. M. and J. G. March (1963). Behavioral Theory of the Firm. Englewood Cliffs, N.J., Prentice-Hall.
- D'Aveni, R. (1994). Hypercompetition: Managing the Dynamics of Strategic Maneuvering. New York, Free Press.
- Daft, R. L. and K. E. Weick (1984). "TOWARD A MODEL OF ORGANIZATIONS AS INTERPRETATION SYSTEMS." Academy of Management Review **9**(2): 284-295.
- Dunning, J. H. and S. M. Lundan (2010). "The institutional origins of dynamic capabilities in multinational enterprises (dagger)." Industrial and Corporate Change **19**(4): 1225-1246.
- Eisenhardt, K. M. (1989). "Making fast strategic decisions in high-velocity environments." Academy of Management Journal **32**(3): 543-576.
- Eisenhardt, K. M. (2008). "Speed and strategic choice: How managers accelerate decision making (Reprinted from California Management Review, vol 32, 1990)." California Management Review **50**(2): 102-+.
- Fiske, S. and S. Taylor (1991). Social Cognition. New York, McGraw Hill.

- Flier, B., F. A. J. Van Den Bosch, et al. (2003). "Co-evolution in strategic renewal behaviour of British, Dutch and French financial incumbents: Interaction of environmental selection, institutional effects and managerial intentionality." Journal of Management Studies **40**(8): 2163-2187.
- Gavetti, G. and D. Levinthal (2000). "Looking forward and looking backward: Cognitive and experiential search." Administrative Science Quarterly **45**(1): 113-137.
- Gupta, A. K. and V. Govindarajan (2002). "Cultivating a global mindset." Academy of Management Executive **16**(1): 116-126.
- Halinen, A., A. Salmi, et al. (1999). "From dyadic change to changing business networks: An analytical framework." Journal of Management Studies **36**(6): 779-794.
- Hedberg, B. and S. Jonsson (1977). "Strategy formulation as a discontinuous process." International Studies in Management Organization **7**: 89-109.
- Hodgkinson, G. P. (2005). Images of Competitive Space; A Study of Managerial and Organizational Strategic Cognition. New York, NY, Palgrave Macmillan.
- Huff, J. O., A. S. Huff, et al. (1992). "STRATEGIC RENEWAL AND THE INTERACTION OF CUMULATIVE STRESS AND INERTIA." Strategic Management Journal **13**: 55-75.
- Kaplan, S. (2008). "Framing Contests: Strategy Making Under Uncertainty." Organization Science **19**(5): 729-752.
- Koza, M. P. and A. Y. Lewin (1999). "The coevolution of network alliances: A longitudinal analysis of an international professional service network." Organization Science **10**(5): 638-653.
- Malnight, T. W. (1996). "The transition from decentralized to network-based MNC structures: An evolutionary perspective." Journal of International Business Studies **27**(1): 43-65.
- March, J. and H. A. Simon (1958). Organizations. New York, Wiley.
- Meyer, A. D. (1982). "ADAPTING TO ENVIRONMENTAL JOLTS." Administrative Science Quarterly **27**(4): 515-537.
- Meyer, A. D., G. R. Brooks, et al. (1990). "ENVIRONMENTAL JOLTS AND INDUSTRY REVOLUTIONS - ORGANIZATIONAL RESPONSES TO DISCONTINUOUS CHANGE." Strategic Management Journal **11**: 93-110.
- Moen, O. (2002). "The born globals - A new generation of small European exporters." International Marketing Review **19**(2-3): 156-175.
- Narayanan, V. K., L. J. Zane, et al. (2011). "The Cognitive Perspective in Strategy: An Integrative Review." Journal of Management **37**(1): 305-351.
- Nonaka, I. (1994). "A DYNAMIC THEORY OF ORGANIZATIONAL KNOWLEDGE CREATION." Organization Science **5**(1): 14-37.
- Oviatt, B. M. and P. P. McDougall (1994). "TOWARD A THEORY OF INTERNATIONAL NEW VENTURES." Journal of International Business Studies **25**(1): 45-64.
- Oviatt, B. M. and P. P. McDougall (2005). "The internationalization of entrepreneurship." Journal of International Business Studies **36**(1): 2-8.
- Prahalad, C. K. and R. A. Bettis (1986). "THE DOMINANT LOGIC - A NEW LINKAGE BETWEEN DIVERSITY AND PERFORMANCE." Strategic Management Journal **7**(6): 485-501.
- Reger, R. K. and T. B. Palmer (1996). "Managerial categorization of competitors: Using old maps to navigate new environments." Organization Science **7**(1): 22-39.
- Smith, P. C. and J. Laage-Hellman (1992). Small group analysis in industrial networks. Industrial Networks: A new view of reality. B. Axelsson and G. Easton. London, Routledge.
- Spender, J. C. (1989). Industry recipes: an enquiry into the nature and sources of managerial judgement, Blackwell.
- Starbuck, W. and F. Milliken (1988). Executives' perceptual filters: What they notice and how they make sense. The Executive effect: concepts and methods for studying top managers. D. C. Hambrick. Greenwich, CT, JAI Press.

Tripsas, M. and G. Gavetti (2000). "Capabilities, cognition, and inertia: Evidence from digital imaging." Strategic Management Journal **21**(10-11): 1147-1161.

Walsh, J. P. (1995). "Managerial and Organizational Cognition: Notes from a Trip Down Memory Lane." Organization Science **6**(3): 280-321.

Weick, K. (1995). Sensemaking. Beverly Hills, CA, Sage.

Zahra, S. A. (2005). "A theory of international new ventures: a decade of research." Journal of International Business Studies **36**(1): 20-28.
