Research in strategic management has interpreted how companies compete in very diverse ways. Researchers have elaborated different theories or approaches, whose reasoning ranges from explanations oriented towards the interior of the firm to explanations taking the external environment as the point of reference (Hoskisson, Hitt, Wan, & Yiu, 1999). However, the majority of these approaches regard the firm as an independent and autonomous entity that competes with other firms for returns in an impersonal market. But affirming this, categorically, is inappropriate in a world in which firms belong to networks of social, professional, and exchange relationships with other companies (Galaskiewicz & Zaheer, 1999; Granovetter, 1985; Gulati, 1998). These networks consist of lasting ties that have strategic significance for the firms belonging to them. They include strategic alliances, joint ventures, long-term collaboration relationships between suppliers and their customers, and a great number of similar ties (Gulati, Nohria, & Zaheer, 2000).
As Osborn and Hagedoorn (1997) affirm, researchers are beginning to realize that the modern world is dominated by organizations with specialized skills. It is, consequently, also a world dominated by the connections between these specialized organizations.

**Neither Market nor Hierarchy:**
*Networks and Alliances*

Franchises, such as those created by the pioneering Kentucky Fried Chicken or McDonald’s, in which the use of a brand, image, and commercial formula is licensed to third parties unconnected with the ownership of the franchisor, did not stop growing throughout the second half of the 20th century. The same can be said of the close vertical relationships arising within firms from the same industry, such as in Benetton or Toyota.

For Jarillo (1993), the previous cases are examples of successful firms that do two apparently contradictory things at the same time. First, these companies control the entire production process, from the raw materials to the end consumer. Second, they do not own the units that supply them with their raw materials or subcomponents, nor the units commercializing the end products with the end consumers. In other words, these companies act simultaneously as large integrated firms, taking care of everything, and as firms concentrating only on a few key activities and outsourcing the rest.

Most traditional organizations concentrate on only one of these two things, either carrying out most of the activities internally (the firms are then said to be integrated or hierarchical organizations), or alternatively delegating the supply of components or the distribution of end products to a number of arm’s-length subcontractors for an agreed price. This second group of firms has no influence whatsoever over the subcontractors, and the relationship does not go beyond the contractually agreed transaction (hence, adopting so-called market governance forms). However, being able to operate in both ways simultaneously—combining the control capacity of the integrated firm with the flexibility and cost competence of market governance—is sometimes a requisite for success.

Best (1990) affirms that the large hierarchical firm is the old way of organizing things, while the new way of competing is based on a network of lateral and horizontal interconnections within companies and between them. According to Jarillo (1988, 1993), if a company is able to externalize certain non-core activities to the most efficient suppliers without its transaction costs increasing excessively, and undertakes the activities in which it has a comparative advantage itself, a superior form of organization emerges: the strategic network.
Networks and strategic alliances represent an attempt to resolve the competitive agility paradox (Osborn, 1998). According to this paradox, organizations need to be stable in order to be able to learn and grow by developing their strengths; at the same time, they need to be flexible in order to face a hypercompetitive environment (D’Aveni, 1994). Discontinuities in the environment make it impossible for an integrated firm to undertake all activities within its organization (Limerick & Cunnington, 1993). Thus, the dichotomy offered by Williamson (1975, 1985) in his initial work, regarding the choice between vertically integrated organizational forms and organizations carrying out free exchanges in the market, proves incapable of resolving this paradox.

Alliances and network forms represent an intermediate situation between the hierarchical governance forms typical of integrated firms and the market governance forms (Williamson, 1991), or as Thorelli (1986) points out, they are a distinct alternative from these two forms. According to Zenger and Hesterly (1997), a series of fundamental changes have dramatically altered the way in which production and services are organized in the economy: firms have shrunk in size; the exchanges occurring inside companies are becoming more like those of the market; and the governance mechanisms typical of the hierarchical firm are increasingly assisting transactions between companies operating in the market. This gives rise to network organizational forms consisting of small autonomous units that possess elements of both forms of governance—hierarchy and market—and which may also have started out either as one form or the other. In this respect, integrated companies fragment into autonomous units that are appropriately coordinated, and those organizations that once operated in the free market are now coordinated in networks.

At this point it might be interesting to point out that alliances are a concept that is not exclusive to modern times, nor are they inconceivable without the support of information technology (IT), which we shall discuss in the following section. An example of an alliance was founded by 20 Greek cities to defeat Persia in around 448 BC (Smith, Carroll, & Ashford, 1995). However, IT undoubtedly generates the driving force that allows alliances to expand rapidly (García Calderón Díaz, 1998). Currently, alliances are something more than just an option: the dynamism of the environment, nowadays, is creating a context in which these alliances are essential to resolve the previously described paradox, and alliances are proliferating in large part due to the support modern IT provides in solving the problems that arise in their information flows.
Alliances, Information, and Information Technology

Alliances can provide a company with access to information, resources, markets, technologies, facilities for learning, and economies of scale and scope; they also allow firms to share risks and subcontract some of their value-chain activities (Gulati et al., 2000).

Various factors enable network organizational forms to develop. Specifically, technological and organizational innovations facilitate the implementation of market mechanisms in hierarchies, making it possible for firms to structure themselves into smaller units, measure performance, and reward achievement accordingly. Zenger and Marshall (1995) argue that the smaller the units, the more effective the incentives. Moreover, these technological and organizational innovations have accelerated the implementation of hierarchy elements within markets, including control, the administration of incentives, orders, and a richer communication. In this context, IT plays an important role, whatever the origin of the alliances or networks created. IT allows these disaggregated units to be monitored and their performance to be measured; likewise, it improves communication between the participating units and their coordination (Zenger & Hesterly, 1997).

According to Thorelli (1986), it may be useful to regard the alliance as a single organization with strategic goals. For this author, considering the functional proximity between the alliance members, it is also natural to take this perspective in the information systems used for the management and planning. He has no doubt about this, arguing that members that belong to an alliance will expect a large amount of information to be shared, so the majority of alliances between firms will need to be founded on their respective information systems.

Similarly, Limerick and Cunnington (1993) also stress the importance of IT. For these authors, IT is the driving force behind the expansion of strategic alliances. The new ITs have made it possible to design a set of more disaggregated, distributed, and flexible production and organization agreements, as well as, new forms in which companies can organize their internal operations and link up with the firms with which they are transacting (García Calderón Díaz, 1998).

Although many works have examined the topic of networks or relationships between companies, and some have mentioned the importance of IT in them (Cash & Konsynski, 1985; Jarillo, 1993; Porter & Millar, 1986; Rackoff, Wiseman, & Ullrich, 1985), few contributions have explained IT’s role in alliance formation in detail (see Clemons & Row, 1992; Kumar & van Dissel, 1996).
The literature has some gaps with regards to what IT does and how it enables—or at least improves—the functioning of alliances. In this respect, this book aims to take this opportunity and shed some light on the question.

Organization of This Book

This book deals jointly with two important topics for a firm’s competitiveness in the framework of the information society: alliance strategies and the role played by IT in alliances. After reviewing the main concepts, theories, and work dealing with alliances, we analyze why firms form alliances and how IT influences the process. Besides this, the book analyzes: the development of global business-to-business electronic markets and whether these markets are becoming a way of improving trust between organizations at an international level; problems in implementing inter-organizational systems and their solutions; the importance of strategic alliances in building collaborative advantages by sharing knowledge or cooperating in innovation development; the relationships between the structures of inter-organizational information systems (IOS) and strategic alliances; how IT and alliance strategy are important both to multinational corporations and family firms, regardless of firm size; and how IT and cooperation support environmental management innovations through virtual cooperation between firms and institutions.

The book is organized into 11 chapters. A brief description of each of these chapters follows:

**Chapter I** defines some basic concepts about alliances; their attributes, the differences between them and traditional structures; and the types of alliance. The second section of this chapter analyzes the state of the art in the literature on alliances. The third and final section analyzes the role of IT in the formation and running of alliances.

**Chapter II** addresses the disorder that is apparent in the literature on inter-organizational relationships. This makes this field ideal for conducting quantitative studies that clarify the conceptual map and complement the existing qualitative research. In this chapter, a bibliometric study reveals the theoretical fragmentation of the literature on inter-organizational relationships; maps the most relevant studies and theoretical approaches; and highlights the topics that have been addressed most in this field.

**Chapter III** analyzes the development of global business-to-business electronic markets, and whether these markets are becoming a way of improving trust between organizations at an international level, thereby increasing the inter-organizational cooperation between them. This chapter proposes a model to explain the trust-related sources of competitive advantage for the new interme-
diaries in these markets and to compare these with off-line markets’ characteristics. In addition, some propositions related with the trust-building mechanisms are defined.

**Chapter IV** stresses that while technical solutions to distance work abound, a strong and theoretically grounded approach on how best to implement these solutions is lacking. This chapter presents a three-part framework for organizing research in the areas of shared cognition, providing strategic alliance managers with a resource for implementing their technologically-mediated teams.

**Chapter V** establishes that alliances can be a source for firms to acquire and improve their knowledge-based capabilities. This chapter also analyzes the role of IT in the process of transmission and sharing of knowledge. The authors contend that alliances can also be a mechanism for firms to build a competitive advantage because of their proven access to economies of scope and scale, and complementary capabilities and knowledge.

**Chapter VI** analyzes the repercussions of the adoption of information and communication technology (ICT) on collaborative innovation. The authors aim to shed some light on the subject by means of an empirical analysis conducted on a sample of 1,649 Spanish manufacturing firms.

**Chapter VII** analyzes the relationships between the structures of IOS and strategic alliances. The authors contend that the relationship between both structures tends to be framed within a collaborative dynamic in which the IOS serves the objectives of the alliance. However, the authors also argue that there may be a competitive relationship between the IOS and the strategic alliance when both structures compete for firms from the same sector and geographical area.

**Chapter VIII** analyzes the potential impact of IT on the internationalization processes of family firms via cooperation agreements. The authors address the main research questions concerning the management of family firms and internationalization processes via strategic alliances. Subsequently, they carry out an analysis to determine IT’s impact on family firms’ internationalization processes.

**Chapter IX** focuses on the merger between two GSM operators in Turkey. This chapter is concerned with the structural changes in the IT department, and presents a detailed analysis of the different aspects of the merger process, as well as comments based on a review of the literature on information and communication technologies.

**Chapter X** analyzes the stock market reaction to the internationalization and diversification of the European telecom firms through acquisitions or strategic alliances. The authors analyze these operations with the purpose of verifying to what extent the stock market reaction to these business combinations is influenced by information asymmetry, resource complementarity, and management costs.
Chapter XI concludes and focuses on a particular type of technological relationship between firms and institutions for developing environmental management innovations through virtual cooperation. It goes into particular depth on the economic and strategic reasons explaining the formation of alliances based on IT. The author presents an example of a regional initiative for a cooperative platform based on IT that can result in the assimilation of technological and organizational competences in environmental management by firms located in the area.

References


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**Endnote**

Using different terms, the organization theory literature has examined relationships between firms extensively in various works (some of the most cited are: Contractor & Lorange, 1988; Gulati, 1995; Hamel, 1991; Hamel, Doz, & Prahalad, 1989; Hennart, 1988; Kogut, 1988; Parkhe, 1993; Powell, 1990; Ring & Van de Ven, 1994; Thompson, 1967; Williamson, 1991), as well as in some monographic editions of the main academic journals, such as the *Strategic Management Journal* (volume 21, March 2000). We should note the diversity of topics studied in this area, as well as the multi-paradigmatic approach adopted (García Falcón & Medina Muñoz, 1998).