

HEC MONTRÉAL

Compétition, coopération et coopétition entre filiales au sein des entreprises multinationales

par
Ludvig Bellehumeur

Sciences de la gestion
(Affaires internationales)

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SOMMAIRE

Résumé. En reprenant un concept émergent de la littérature de management stratégique, celui de la « coopétition », c'est-à-dire de la compétition et la coopération simultanée, ce mémoire vise à suggérer des facteurs expliquant l'émergence de coopération et de compétition entre filiales au sein des entreprises multinationales. La littérature actuelle comporte un grand nombre de publications axées sur la nécessité d'accroître la coopération entre unités (intégration de différentes fonctions organisationnelles, exploitation de synergies, partage de connaissances et de ressources stratégiques). Un nombre plus restreint d'articles portent une attention particulière à la compétition entre ces unités. Ma recherche se fonde sur la prémisse que les deux types d'interactions méritent autant de considération; à travers une analyse théorique et empirique, elle propose plusieurs facteurs expliquant l'émergence de compétition et de coopération entre filiales. Ces facteurs ont une portée concrète en ce sens qu'il s'agit d'éléments sur lesquels peuvent directement agir les dirigeants afin d'optimiser les activités de leurs organisations. L'étude ouvre la voie à une recherche plus poussée sur la gestion compréhensive des relations entre filiales.

Mots-clés : compétition, coopération, coopétition, filiales, entreprises multinationales

Abstract. By taking as its starting point an emerging concept of strategic management literature, that of "coopetition," or simultaneous competition and cooperation, my research aims to expose how different factors affecting cooperation and competition are used to manage organizational units within multinational corporations. Current literature contains a large number of articles centered on the necessity of cooperation within organizations (integration, development of synergies, sharing of resources, knowledge transfers). A smaller number of articles analyze the presence of competition between units. My research is guided by the assumption that both types of interactions deserve as much attention. Through a theoretical and empirical analysis, it suggests a number of factors that drive competition and cooperation between units. These factors have both scientific and practical value, as they are elements that executives can directly mobilize in order to coordinate interactions between units. The study paves the way for further detailed research on the comprehensive management of inter-subsidiary relations.

Keywords: competition, cooperation, coopetition, subsidiaries, multinational corporations

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AVANT-PROPOS

Le présent mémoire est composé de deux articles. Ces articles n'auront pas encore été acceptés pour publication au moment du dépôt du mémoire. L'étudiant est seul et entièrement responsable du recensement de la littérature et de la collecte de données sur lesquels reposent ces deux articles. Les professeurs ayant dirigé et codirigé l'étudiant auront essentiellement accordé une aide en ce qui concerne la méthodologie de recherche, ainsi que divers conseils concernant la cohérence et la structure des articles devant être soumis pour publication.

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¹ cf. KANT, Immanuel (1853). « Réponse à la question : qu'est-ce que les Lumières? » (version française de KANT, Immanuel (1784). « Beantwortung der Frage : Was ist Aufklärung? », *Berlinische Monatsschrift*, trad. par Auguste Durand)

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INTRODUCTION

Le concept de « coopétition » émergea au cours des années 1990, en commençant par les publications de Brandenburger et Nalebuff (1996), Dowling *et al* (1996) et Lado *et al* (1997) qui l'utilisèrent en référant à des stratégies organisationnelles accordant une importance égale à la compétition et à la coopération. C'est précisément sur ce concept que se penche la présente étude, qui se fonde sur deux questions :

- (1) *Comment peut-on classifier et caractériser la littérature actuelle sur la coopétition?*
- (2) *Quels facteurs expliquent la coopétition entre les filiales d'une entreprise multinationale?*

Ces questions sont intimement liées : la seconde découle et est justifiée par la réponse à la première. Elles sont, respectivement, au fondement des deux articles présentés dans ce mémoire. Ces articles ont été rédigés de sorte que chacun peut être lu séparément de l'autre. Toutefois, les deux articles demeurent très fortement liés en ce qui a trait à leur contenu.

Le premier article constitue une revue de littérature exhaustive des ouvrages portant explicitement sur le concept de « coopétition » ayant été publiés avant le 31 décembre 2012. L'article se structure en deux parties. La première partie du recensement évalue les différentes perspectives théoriques et propose de nouvelles catégories utiles à la classification de la littérature. La deuxième partie utilise cette classification pour synthétiser la littérature, en propose une évaluation critique, et décèle les thématiques sous-recherchées.

Ceci offre une justification pour la problématique du deuxième article, qui porte plus spécifiquement sur la coopétition entre filiales au sein des entreprises multinationales. Ce deuxième article accomplit plusieurs choses, dont (1) une clarification et une spécification des concepts de compétition, coopération et coopétition; (2) une recherche proposant différents mécanismes pour expliquer l'émergence de compétition et de coopération entre les différentes unités organisationnelles au sein d'une même entreprise; (3) une explication du choix de méthode, ainsi qu'une description détaillée du processus de collecte et d'analyse des données; (4) une description du contexte des deux cas abordés; (5) une exposition des résultats, laquelle permet de corroborer les propositions de mécanismes qui auront été mis de l'avant.

La méthode de collecte de données adoptée au cours de cette recherche repose essentiellement sur des entrevues ainsi qu'une analyse de documents officiels. Le recours à une méthodologie qualitative est largement justifié par la nature exploratoire de l'étude. Les données ont été obtenues à partir de deux entreprises multinationales, sélectionnées non pas en fonction de critères d'exhaustivité, mais plutôt en fonction de leur pertinence théorique. La première est une entreprise manufacturière; la seconde est une entreprise technologique spécialisée dans les progiciels de gestion. Les entrevues se sont déroulées à plusieurs niveaux de gestion, notamment au niveau du siège social et au niveau des dirigeants des filiales.

L'étude contribue à une compréhension approfondie des facteurs et des mécanismes affectant la compétition et la coopération dans les relations entre filiales. Six facteurs sont corroborés par l'étude de cas : les facteurs affectant la compétition entre les unités sont (a) la restriction des ressources, (b) l'autonomie des unités, et (c) le nombre d'unités; les facteurs affectant la coopération sont (d) les objectifs communs formels, (e) les processus latéraux, et (f) les valeurs coopératives. La contribution originale de l'article réside dans cette analyse systémique des facteurs et des mécanismes expliquant l'émergence de compétition et de coopération entre filiales.

**FIRST PAPER / CONCEPTUALIZING
COOPETITION: DIVERGING PERSPECTIVES**

INTRODUCTION

A recent strand of literature has promoted the concept of “coopetition.” Most existing definitions of the concept remain faithful to a central axiom – namely that coopetition refers to the *simultaneous occurrence of competition and cooperation*. This axiom could plausibly be seen as the fundamental collective agreement that underlies research on the subject. Yet it also happens to create a great deal of ambiguity and has accordingly given way to a myriad of meanings and interpretations (Walley, 2007; Tidström, 2008; Bengtsson *et al.*, 2010). Given this semantic plasticity, authors have come to different understandings as to what competition and cooperation are (e.g. observable behaviour, or inclination/propensity to act in a certain way), when and where they can occur (e.g. does bargaining count as competition or cooperation?), to whom agency is attributed (e.g. individuals, teams, firms, conglomerates, associations of firms),² how the interaction between agents is to be studied (e.g. as a single dyad between two agents, a set of interactions relating to a particular agent, a larger network of agents, and so on), and the importance of social structure in explaining the interaction between agents (e.g. are interactions explained by the properties of agents, or by the structure of the situation in which they operate?) It is precisely these diverging interpretations that I aim to expose in the present paper.

The paper is structured as follows. The first part reviews the origins and evolution of coopetition research, as well as its different underlying theoretical assumptions. These assumptions are categorized in a way that more accurately reflects the perspectives espoused by different scholars. The second part then draws on these categories to classify recent publications about coopetition. Drawing upon this classification, the paper concludes by identifying gaps in existing research. I begin my analysis by exposing the context in which coopetition became a popular neologism.³

² *Agency* is here used in the sociological sense of the term and should not be confused with any notions pertaining to agency theory in management and economics literature.

³ In philosophy of language, causal theories of reference hold that what a given theoretical term “refers to” can only be explained by studying (1) how the term was first introduced to designate a specific object, and (2) how

THEORETICAL LITERATURE REVIEW

Origins of the term ‘coopetition’

The large majority of authors (Brandenburger and Nalebuff, 1996; Padula and Dagnino, 2002; Luo, 2007; Walley, 2007; Tidström, 2008; Choi *et al.* 2010; Rusko, 2011) claim that the term “coopetition” was coined and popularized in 1993 by Raymond Noorda, former CEO and founder of networking software company Novell. Stein (2010) notes that recorded uses of the term go as far back as 1911, although these instances never really captured public attention. Noorda figured in the cover story of the *Electronic Business Buyer* magazine when he stepped down as CEO of Novell. Included in the article is the following defining passage:

Even with regard to the ongoing marketplace battle with Microsoft, Noorda stresses that – public perceptions aside – the two companies work together on many fronts. He does suggest, however, that Novell puts more effort into building bridges than Microsoft. "Microsoft has a different perspective, and it often thinks we are trying to get into its markets," Noorda says, "but we really are not. We are trying to help the whole business grow. We view that very seriously, and we call it *coopetition*. You have to cooperate and compete at the same time." (1993, p. 50)

It is precisely on this conception that Brandenburger and Nalebuff (1996), two game theory scholars, would write their book “*Co-opetition*.” This book essentially incorporated Noorda’s idea into the authors’ earlier strategic management work (see Brandenburger and Nalebuff, 1995).⁴ The publication would be followed a month later with a first academic article by Dowling *et al.* (1996) who, despite using the term “coopetition,” did not attribute it to Noorda, and a few months later by Lado *et al.* (1997), who made direct reference to both

the term was transmitted from one scholar to another, allowing us to trace a “causal chain” all the way back to its origin as a neologism (Kripke, 1972, 1980; Putnam, 1975). In order to use a new word to successfully refer to a phenomenon, one does not necessarily need to know about a uniquely identifying description of that phenomenon; all that is necessary is that the use of the word be *caused* by some event that makes us *name* the phenomenon in question. Such a causal theory of reference provides an explanation for how different scholars can refer to the same entity despite fundamentally different beliefs about this entity; it also implies that a word’s meaning evolves over time and can only be understood in historical context (Brigandt, 2010).

⁴ It should also be noted that Brandenburger and Nalebuff’s (1996) book was aimed at managers, rather than a purely academic audience.

Noorda and Brandenburger and Nalebuff's work.⁵ The next section examines in further detail how these and subsequent works culminated in diverging conceptualizations of coopetition.

Competition and cooperation: when and where they occur

The present section seeks to examine how coopetition, or simultaneous competition and cooperation, has been variously represented as an interactive process between agents.⁶ Within coopetition literature, two schools of thought can be distinguished regarding the competitive and cooperative aspects of inter-organizational relationships. The first holds that competition and cooperation should be equated with zero-sum and positive-sum games. The second considers that competition is not merely defined by the presence of a zero-sum game, but by rivalry over a third party resource. As we will see, a direct consequence of the latter belief is that competition, by definition, only applies to horizontal relations. However, as we already know, coopetition implies the simultaneous presence of *both* competition and cooperation. If vertical relations cannot contain any form of competition, it follows that they also cannot contain any form of *coopetition*. While the nuance may seem slight, its implications are far from negligible. The following section seeks to clearly expose the differences between these views; my analysis begins with the work of Brandenburger and Nalebuff.

Coopetition as value capture and value creation

Brandenburger and Nalebuff (1996) maintain that both competition and cooperation are prevalent in a firm's horizontal and vertical relations with customers, suppliers, competitors and complementors,⁷ which they otherwise characterize as the firm's "value net" (Figure 1).

⁵ Although clearly aware of Brandenburger and Nalebuff's (1996) work, Lado *et al.* (1997) did not make use of the term "coopetition," preferring instead "syncretic rent-seeking behaviour."

⁶ It constitutes a process insofar as agents continuously act and react to each other throughout time.

⁷ This is also a term for which Brandenburger and Nalebuff may be credited for inventing. A "complement" to a product or service is any other product or service that makes it more valuable. Two complementary products A (e.g. a hardware component) and B (e.g. a software component that runs on A) have higher value when bundled together, but have lower value alone. The firm producing A is then said to be a "complementor" of the firm producing B, and vice versa.

Traditional strategy conceptions would often have us see customers, suppliers and complementors as the firm's "friends," while competitors would be its "foes." It is precisely this type of conception that Brandenburger and Nalebuff see as misleading. Firms generally cooperate when it comes to "creating a bigger pie," while they compete when it comes to "dividing it" (Brandenburger and Nalebuff, 1996: 14). These strategies can be pursued in both vertical and horizontal relations. No player is intrinsically a "friend" or a "foe."

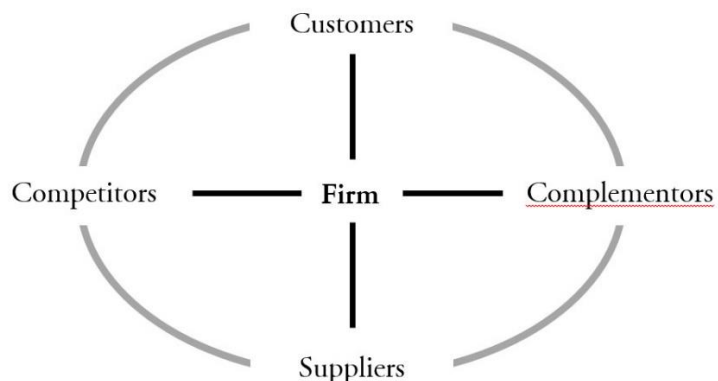


Figure 1. The value net
(Brandenburger and Nalebuff, 1996)

An implicit assumption underlying this proposition is that competitive interactions imply "value capture," i.e. zero-sum games, while cooperative interactions imply "value creation," which is characteristic of positive-sum games.⁸ Relations between the firm and other players in its value net are thus made up of a combination of both zero-sum and positive-sum games. What the authors suggest is that situations exist where firms can in fact both cooperate and compete with each other at the same time. One strategy is not "superior" to the other, and one should be particularly careful to avoid concentrating exclusively on competitive strategies, as some strategic management literature suggests (Henderson, 1989; D'Aveni, 1994; Porter,

⁸ One should keep in mind that not all positive-sum games are beneficial to *all* players. A positive-sum game implies more overall gains than losses. In this sense, a game where all players achieve a gain represents a particular case of positive-sum games.

1998).⁹ The authors maintain that there is a duality in every relationship, and that managers should therefore adopt a mindset of *coopetition* – that is, they should be aware of the possible combinations of competition and cooperation with a given player, and chose their strategy accordingly (Brandenburger and Nalebuff, 1996: 39).

The processes of value creation and value capture in which players engage can give rise to rather unorthodox situations. Consider the vertical relationships of IBM in the late 1980s, a point in time where it used to outsource much of its input by relying on companies such as Intel and Microsoft to supply microprocessors and operating system technology for its PCs. IBM's pursuit of outsourcing and open-architecture policies eventually led to a series of technology leaks and substitute products from a number of firms (among them First Osborne, Leading Edge, Hewlett Packard, then Compaq and Dell) who essentially entered the market by cloning IBM's products. This provided an incentive for Microsoft to become a monopoly supplier in an increasingly fragmented hardware industry. IBM tried to regain control by introducing the PS/2 line of personal computers and develop its own OS/2 operating system with Microsoft. However, at this stage Microsoft no longer needed IBM; it therefore decided to develop Windows as an operating system compatible with all of IBM's competitor products, thereby deteriorating the prospects for IBM's computers which were running on the OS/2 platform. Moreover, while it still supplied IBM, Intel started producing a broad array of hardware components for IBM's competitors, thereby putting an end to the exclusivity of IBM's microprocessors (Brandenburger and Nalebuff, 1996: 156).

The above example shows how the belief that vertical relationships are always harmonious can be misleading; it could accordingly be called the “vertical harmony” fallacy. Yet the story does not end there. The conventional war-like rhetoric claiming that horizontal relationships are purely conflictual in nature could equally be termed the “horizontal conflict” fallacy. A firm will *prima facie* wish to eliminate its competitors so as to take over their market share;

⁹ Porter, in his *On Competition* (1998), claims that “the essence of strategy formulation is in coping with competition.” (p. 21) Porter effectively defines strategy purely in terms of structural competitive positioning.

however, each of them may possess unique capabilities which can potentially complement those of the other, thus raising the value of their respective activities (Hamel, Doz and Prahalad, 1989). Failure to recognize this can lead to important opportunity costs, as the story of Citibank's ATM network illustrates:

Even when they recognize a complement, some people turn it down. Citibank was the first bank to introduce the ATM, back in 1977. When other banks came along with their own ATMs, they wanted Citibank to join their networks. That would have made everyone's ATM cards valuable. When banks are on a common network, each machine complements all the others. But Citibank refused to join. It did not want to do anything that might help its competitors. That decision came at the expense of Citibank's own customers. Over time, the other bank networks became the national and international leaders, and Citibank customers were left out. The limited ATM access cost Citibank [a great deal of] market share. (Brandenburger and Nalebuff, 1996: 31)

While it is generally preferable to hinder *new* entrants from stealing market share, letting *current* competitors survive and thrive can sometimes lead to mutually beneficial outcomes (Brandenburger and Nalebuff, 1996: 67-68). The capacity of competitors to complement each other serves as the principal rational explanation and justification for inter-competitor cooperation.¹⁰ However, the view that competition and cooperation should respectively be assimilated with zero-sum and positive-sum games (i.e. "value capture" and "value creation") has been questioned by a number of scholars.

Coopetition as collaboration between competitors

Authors such as Bengtsson and Kock (2000) have argued in favor of limiting the concept of coopetition exclusively to horizontal relations. This is essentially due to differences in assumptions on the nature of competition. The authors view competition as the "direct rivalry that develops between firms" due to "structural conditions within the industry." (Bengtsson and Kock, 2000: 412) Competition is thus imposed on firms by the very structure of their environment; markets essentially *force* firms to strive for the resources of a *third party* (e.g.

¹⁰ Baum and Korn (1999) offer an empirical counter-example to the predominant view of horizontal competition in their study of the airline industry, which clearly reveals that close competitors are not the most intensive rivals; in fact, airlines that meet in multiple markets tend to be less aggressive toward each other than those that meet in one or a few markets.

their customers). Hence a vertical relationship consisting of bargaining (e.g. between a firm and its supplier) cannot contain competition because it presupposes a mutual interest to interact and exchange, which is not necessarily imposed by an external structure and does not involve rivalry over a third party resource. The authors therefore argue that “even though similarities can be found, vertical and horizontal relationships are, in many senses, totally different types of relationships, and it is obvious that the trade-offs between cooperation/harmony and competition/conflict in vertical and horizontal relationships, respectively, are of different natures and accordingly have to be managed differently.” (Bengtsson and Kock, 2000: 412) By limiting competition to horizontal relations, proponents of the above view tend to see “coopetition” as a case of simultaneous competition and cooperation *between traditional competitors*, that is to say between firms striving for market share within the same industry (Bengtsson and Kock, 1999: 180).

Other scholars such as Loebbecke *et al.* (1999), Bengtsson and Kock (2000), Luo (2004; 2007), Ritala (2009) and Czakon (2011) equally limit their definition of coopetition to inter-competitor cooperation. This has led some authors (Bengtsson and Kock, 2000; Choi *et al.*, 2010) to distinguish between a *broad* (vertical and horizontal) and *narrow* (horizontal only) understanding of coopetition within the literature. While the distinction is interesting, it should be noted that academic interest for collaboration between competitors is certainly not new.¹¹

Modelling coopetition: some conceptualizations

As we have seen, scholars disagree as to how coopetition should be envisioned as a process. Most of these disagreements are due to underlying assumptions regarding competition and cooperation. However, disparities also exist concerning how coopetition should be modelled and represented. As I disclosed previous sections, scholars agree that coopetition implies the simultaneous occurrence of competition and cooperation. The question remains as to

¹¹ See Hamel and Prahalad (1989), Doz and Hamel (1998).

whether competition and cooperation refer to mutually exclusive actions, and how to apprehend and conceptualize the degree of “coopetition” in a relationship at any given point in time. The present section makes a distinction between two opposing views. The first perspective, which is also the most prevalent within the literature, sees competition and cooperation as two mutually exclusive types of actions, in the sense that an action cannot be both competitive and cooperative at the same time. The second sees competition and cooperation as “interdependent” opposites, meaning that an action can be either competitive, cooperative, or *both*. The nuance between these views will be further examined below.

Competition and cooperation as mutually exclusive actions

The way firms interact can be studied at different levels. One could, for instance, study a particularly consequential *action* which originates in firm A and affects firm B. This would not be the same as studying the broader social *relation* between A and B, in the sense that a relation encompasses much more than a single action.¹² Most scholars seem to agree that competition and cooperation constitute *mutually exclusive actions*: when considered in isolation, a single gesture or action by an individual is either competitive or cooperative, but it cannot be both (Bengtsson and Kock, 2000). Following this logic, each of the cooperative or competitive interactions between A and B can be added up to form an aggregation of interactions, which is representative of the ongoing relation between the two firms. Only a *relation* may be termed “coopetitive,” as it can be made up of a series of simultaneous competitive and cooperative interactions. Properly evaluating the state of “coopetition” between two firms requires that we evaluate the degree of competition and cooperation present in their relation. This also incidentally makes coopetition a fundamentally holistic concept which finds its usefulness in characterizing larger *systems* of interactions.

Bengtsson *et al.* (2010) note that coopetition has been conceptualized in a one-dimensional and a two-dimensional perspective. On the one hand is the one-dimensional view, where

¹² The distinction between *interactions* and *relations* is further discussed in a subsequent section.

coopetition refers to any point along a continuum between absolute competition and absolute cooperation (Bengtsson *et al.*, 2000; Dagnino and Padula, 2005; Eriksson, 2008; Osarenkhoe, 2010), as illustrated in Figure 2. The notion that competition and cooperation are on the opposite ends of a continuum has already been advanced by a number of scholars (see Ackoff and Emery, 1972; Stern *et al.*, 1979). This representation of coopetition is useful insofar as it clearly indicates whether competition or cooperation is dominant in a given relationship.

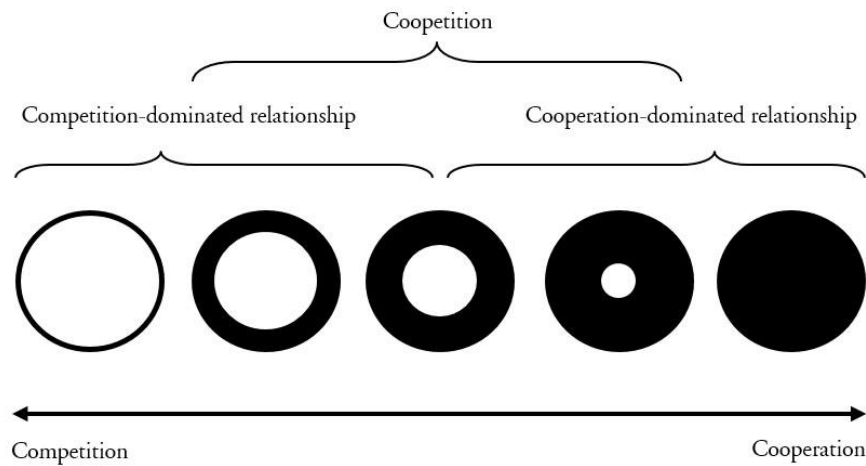


Figure 2. The one-dimensional model of coopetition
Adapted from Bengtson and Kock (2000)

On the other hand, a two-dimensional view (Lado *et al.*, 1997; Young and Wilkinson, 1998; Luo, 2004; Bengtsson *et al.*, 2010) stipulates that competition and cooperation should be measured as two separate variables, which in turn allows for a two-dimensional measure of coopetition and a more complex understanding of inter-organizational relations, a perspective illustrated in Figure 3.

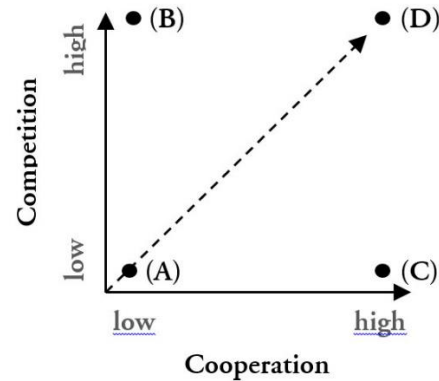


Figure 3. The two-dimensional model of competition

The model allows for greater nuance in determining a firm's situation. For instance, a relationship could be characterized as being one of “medium” competition and “high” cooperation, something which was previously impossible in the one-dimensional view. Four ideal types of relations may be distinguished in this model: (A) neither cooperative nor competitive; (B) highly competitive; (C) highly cooperative; or (D) both highly cooperative and highly competitive at the same time. The latter forms what Lado *et al.* (1997) would characterize as the basis for “syncretic rent-seeking behaviour,” as illustrated in Figure 4.

Competitive orientation	High	(B) <i>Competitive</i> rent-seeking behaviour	(D) <i>Syncretic</i> rent-seeking behaviour
	Low	(A) <i>Monopolistic</i> rent-seeking behaviour	(C) <i>Collaborative</i> rent-seeking behaviour
		Low	High
		Cooperative orientation	

Figure 4. The syncretic model of rent-seeking strategic behaviour
Adapted from Lado *et al.* (1997)

“Syncretic” rent-seeking behaviour refers to “a firm’s strategic orientation to achieve a dynamic balance between competitive and cooperative strategies.” While cooperation may be viewed by neoclassical and industrial organization economists as efficiency-reducing collusion, in the context of syncretic rent-seeking behaviour, cooperation effectively improves

the competitive position of a firm by enabling two partners to leverage and benefit from each other's competencies, while reducing the costs and risks that would otherwise have been incurred in building and mobilizing such competencies alone. On the one hand, firms that engage in syncretic behaviour obtain greater strategic flexibility by maintaining a variety of strategic options. The authors also suggest that simultaneous cooperation and competition can stimulate greater knowledge seeking, technological progress, and market expansion than is achieved when each strategy is pursued separately, although they do not clearly indicate *how*. On the other hand, these benefits may be offset by potential costs resulting from a greater and more diverse repertoire of cognitive maps, behavioural routines, and organizational resources for engaging in both competitive and cooperative behaviour, and for choosing when to pursue each option with specific transaction partners (Lado *et al.*, 1997). And yet, as we noted earlier, the one-dimensional and two-dimensional models above have something in common: they both assume that competition and cooperation are mutually exclusive options. We now turn to an author who questions this assumption.

Competition and cooperation as interdependent opposites

Despite its predominance within the literature, the view that competition and cooperation constitute mutually exclusive actions has been questioned by scholars such as Chen (2008). According to Chen, previous traditional conceptions tend to see competition and cooperation as *independent* opposites, meaning mutually exclusive “absolutes” which can only be considered separately regardless of the context. Following this perspective, the two types of actions have fundamentally contradictory logics; authors such as Bengtsson and Kock (2000) therefore argue that a complex relation between two firms can only be managed by clearly separating the two types of action. Chen contrasts this with a view of competition and cooperation as *interdependent* opposites, which stipulates that cooperation and competition are not necessarily mutually exclusive since a strategic action can be *both* competitive and collaborative at the same time. The author offers an interesting example:

General Motors once offered a \$1,000 rebate certificate for auto parts with the purchase of a GM car, but the certificate could be redeemed at any competitor's outlet. Should a competitor like

Ford consider GM's action as a cooperative move – one that could boost Ford's sales – or a competitive move? (Chen, 2008: 299)

Another example concerns the maintenance of industrial standards. The choice to conform to a given standard is seen by Chen as a cooperative action insofar as firms act together in their common goal of imposing the standard throughout the industry. However, as more and more players join the network of standardized producers, competition between players will intensify. The choice to conform to an industrial standard is thus both a cooperative *and* a competitive manoeuvre.

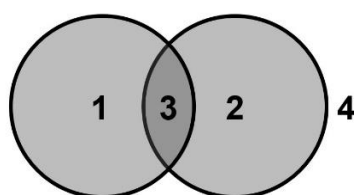


Figure 5. Types of interorganizational actions
Adapted from Chen (2008)

The resulting possibilities are illustrated in Figure 4: some actions may be competitive (1), while others are cooperative (2) in nature. The overlapping area (3) comprises those “interconnected opposites” type of actions that are mixed and/or ambiguous in nature. These situations exist in a universe of actions (4) which may be neither competitive nor cooperative (Chen, 2008: 300). At the interorganizational level, a single action by a firm can thus be classified as competitive, cooperative, mixed (“coopetitive”), or neither/nor.

However, it is not at all clear whether conforming to an industrial standard constitutes a form of cooperation; it could be considered more akin to a form of collective action in the sense that each firm conforms to a norm without explicitly sharing an execution plan with the others (Leist, 2011). Moreover, it is also possible that mixed actions are in fact made up of two distinct but simultaneous actions of cooperation and competition. In the end, disagreements over what constitutes a mixed action may be more of a definition than an ontology problem. In any case, there is no doubt that Chen's theory clearly opposes Bengtsson and Kock's (2000) view and thus illustrates another point of discord within the literature. Yet

as I will show, the list does not end here. The next section discusses the levels in which coopetition may be analyzed.

Units and levels of analysis

Existing categories

So far, we have seen the concept of coopetition being mainly applied to *inter*-organizational relations. However, following early works on coopetition (Brandenburger and Nalebuff, 1996; Dowling *et al.*, 1996; Lado *et al.*, 1997), a string of more recent studies (Tsai, 2002; Luo, 2005; Luo *et al.*, 2006; Lin *et al.*, 2010) have also started analyzing coopetition at the *intra*-organizational level, referring to coopetition between individual “persons, teams, groups, departments or business units” within firms (Ritala *et al.* 2009).¹³

Early proponents of “coopetition strategy” (Brandenburger and Nalebuff, 1996; Dowling *et al.*, 1996; Lado *et al.*, 1997) were not directly concerned with issues relating to level of analysis. Dagnino and Padula (2002) were seemingly the first to distinguish between “macro,” “meso” and “micro” levels of analysis in one of their earlier working papers. The “macro” level here refers to relations among firms across industries or clusters. According to the authors, firms “traditionally compete on product and factor markets” while they cooperate in “product design, manufacturing or distribution and the definition of new standards” (Dagnino and Padula, 2002: 18). The “meso” level refers to firms that are connected either vertically or horizontally. The “micro” level concerns “actors as the functions and divisions within a firm or the workers in a firm” (Dagnino and Padula, 2002: 19). Coopetition strategy is thus described as “a multidimensional and multifaceted concept, which may encompass multiple levels of analysis,” e.g. “firm dyads, networks, clusters, industries, nations.” (Dagnino and Padula, 2005: 23)

¹³ I discuss the difference between these “inter” and “intra” categorizations in the following section.

A second classification is suggested by Gnyawali *et al.* (2006), who distinguish between three primary levels of analysis: “*industry* level (e.g., levels and patterns of cooperative and competitive activity across industries),¹⁴ *group* level (e.g., structure and behaviour of competitive groups), and *firm* level (e.g., levels and patterns of firm cooperative and competitive activity)” (Gnyawali *et al.*, 2006: 508). These classifications were followed by distinct categorizations by other authors such as Tidström (2008), Rusko (2010) and Bengtsson *et al.* (2010), as illustrated in Table 1.

Author(s)	Levels of analysis identified
Dagnino and Padula (2002)	(1) Macro (industry) (2) Meso (firm) (3) Micro (individual)
Gnyawali <i>et al.</i> (2006)	(1) Industry (2) Group (3) Firm
Tidström (2008)	(1) Between individuals (2) Within organizations (3) Between organizations, which includes: a. inter-competitor relationships b. buyer-seller relationships, and c. coopetition between multinational enterprises
Rusko (2010)	(1) Dyadic coopetition (2) Multifaceted coopetition (3) Intra-firm coopetition (4) Industry-level coopetition
Bengtsson <i>et al.</i> (2010)	(1) Intra-organizational (between a firm’s units, groups and individuals) (2) Inter-organizational (dyad and network levels)

Table 1. Levels of analysis according to different authors

As Table 1 suggests, there is a large variety of assumptions regarding the different levels of analysis in which coopetition can be studied. It is far from obvious whether any of the above

¹⁴ While analyzing inter-organizational relations at the industrial level, Teece (1992) equally argued that “competition is essential to the innovation process and to capitalist economic development more generally. But so is cooperation. The challenge to policy makers and to managers is to find the right balance of competition and cooperation, and the appropriate institutional structures within which competition and cooperation ought to take place.” (Teece, 1992: 1-3)

classifications should be adopted for the purpose of the present literature review. The question arises as to how all these disparities should be accounted for, an issue which I intend to deal with next.

Suggested classification scheme

As the previous section indicates, a number of differences persist regarding the levels of analysis identified by cooperation scholars. Such differences make a synthesis of existing levels of analysis difficult to achieve. This in turn makes a literature review impossible to complete, since a proper categorization of literature cannot be done without a clear reference to the different levels of analysis adopted by scholars. The present section therefore seeks to fill out some loopholes in previous classifications. It does so by examining different possible levels of analysis and analytically justifying how these should be used to categorize existing research papers (independently of the levels of analysis that researchers have themselves identified, which could, after all, be incomplete or inaccurate).

Following arguments already outlined by social scientists and philosophers of science (Giddens, 1984; Kincaid, 2012) as well as management scholars (Chia, 1996; Sydow and Windeler, 1998), I contend that there is a necessary distinction to be made between (1) what constitutes an “agent”,¹⁵ (2) how different agents’ interactions can be studied, and (3) whether the outcome of interactions is (a) explained by the individual properties of agents; or (b) explained by a larger constraining system.

Agents, or the “units” of analysis, are the entities in which action originates and to which actions are attributed. Some studies tend to consider *individuals* as agents (e.g. Lin *et al.*, 2010), while others tend to consider *firms* as agents (e.g. Rusko *et al.*, 2010). Attribution of agency to entities of different sizes constitutes one element which distinguishes some scholars from others.

¹⁵ Indeed, terms such as “micro” and “macro” imply nothing about the size of actors (individual, group, organization, etc.) or the proximity of their interaction. See Archer (1995: 8-9).

Aside from the entity to which they are associated, agents are also differentiated by two elements: *properties* and *behavior*.¹⁶ Properties refer to the internal, non-observable attributes of agents, which includes such things as their intentions, preferences, beliefs, and knowledge. Behavior encompasses the external consequential actions of agents.¹⁷ The distinction between the two is highly relevant for students of competition and cooperation alike. For instance, is competition defined by external behavior (e.g. actions) or internal properties (e.g. beliefs and intentions)? Depending on the answer, scholars will likely adopt very different interpretations.

Furthermore, to say that a structure “constrains” actors is to say that it only has behavioral effects, while saying that a structure “constructs” actors is to say that it has property effects.¹⁸ Authors such as Bengtsson and Kock (2000) clearly think in behavioral terms when they say that individuals can only act in accordance with one of the two logics of interaction at a time. Others, such as Lado *et al.* (1997), give much more importance to socially embedded and constructed properties, which explains their emphasis on the competitive and cooperative “orientation” of agents.¹⁹

¹⁶ Boella *et al.* (2007) also make such a distinction in their analysis of the roles of agents in multi-agent systems.

¹⁷ In his theory of competition and cooperation, social psychologist Morton Deutsch (2006) distinguishes competition and cooperation along two lines: (1) the degree of interdependence between the actors, and (2) the type of action taken by the people involved. The degree of interdependence depends on whether the attainment of one player’s goal is correlated to the attainment of those of other players. Meanwhile actions may be perceived as “effective,” i.e. improving one’s chances of realizing a goal, or “bungling,” i.e. worsening the actor’s chances of attaining his goals (Deutsch, 2006: 24). In other words, Deutsch defines competition and cooperation in both (1) property and (2) behavioral terms.

¹⁸ I here draw upon the work of constructionist political theorists such as Wendt (1999).

¹⁹ While some argue that internal properties are socially constructed, others will argue that they are innate. This is notably the case of Loch, Galunic and Schneider (2006), who argue that the balance of cooperation and competition within groups is influenced not only by rational self-interested calculation, but also by instinctive emotional algorithms which have been shaped through biological evolution.

Agency level	Characteristics	Examples
The individual	Competition and cooperation analyzed at the level of the individual. Proponents of methodological individualism will adopt this level of analysis.	Deutsch (1973), as cited by Tidström (2008)
A group or team of individuals	When individuals start formally or informally identifying themselves with certain teams, it makes sense to speak of these teams as distinct entities that interact with each other.	Lin <i>et al.</i> (2008)
The organization	The organization is considered as the basic unit from which various forms of action originate.	Gnyawali <i>et al.</i> (2006)

Table 2. Attribution of agency at different levels

My second point is that levels of attribution of agency should not be confused with levels of interaction.²⁰ Interaction could be seen as the ongoing process of action and reaction between agents. The interactions that exist between a pair (or “dyad”) of agents forms a relation.²¹ “Interaction” and “relation” are not equivalent concepts: the former refers to a specific sequence of action and reaction, while the latter refers to a larger scheme of purposeful interactions. Thus if a firm A orders a good and a firm B delivers it, they are having an interaction. However, the *relation* between A and B could encompass much more than a simple exchange; they could in fact be simultaneously engaged in a multitude of interactions. The nuance between interaction and relation has important implications. The relation between A and B can effectively be made up of an amalgam of competitive and cooperative interactions. It is precisely because interactions can be studied at higher levels that it makes sense to speak of “coopetition.”

²⁰ Ritter and Gemünden (2003), two IOR scholars, have also argued in favor of a clearer distinction between levels of agency and interaction. The authors refer to this as “management” and “interorganizational” levels of analysis (Ritter and Gemünden, 2003: 693).

²¹ “Relation” and “relationship” are considered synonymous terms throughout my work. However, I will generally prefer the term “relation.”


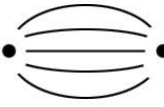
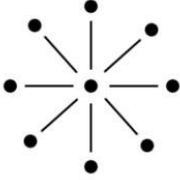
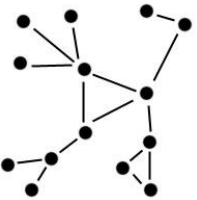
Level	Illustration	Characteristics	Examples
The single interaction		Concerns a specific sequence of action and/or reaction between two agents.	Chen (2008)
The relation		Two agents may interact with each other in a myriad of different ways. The relation between two firms may be seen as a series of distinct actions taking place at the same time. A dyad may concern a specific selection or the totality of interactions taking place between two agents.	Bengtsson and Kock (2000), Luo (2004)
The centralized network		The centralized network, or “net,” captures the multiple relations of a single agent. It can be used to study the totality or a specific selection (a “portfolio”) of the agent’s relations with other agents. A notable example is Brandenburger and Nalebuff’s value net.	Brandenburger and Nalebuff (1996)
The decentralized network		The decentralized network is characterized by the fact that nodes (or agents) are not all directly linked to a “core.” A network may have varying levels of centralization/decentralization. Whereas completely centralized networks more closely resemble the “net” described above, completely decentralized networks are often described as “diffuse.” Decentralized networks are often more useful to describe complex sets of relations.	Ting-Hua and Tzu-Ju (2005), Rusko (2010)

Table 3. Levels of interaction between agents

As both Table 2 and Table 3 suggest, different levels of agency and interaction can be combined in a large number of ways. However, another fundamental level of analysis remains, which relates to the importance of *social structure* in researchers’ explanation of competition and cooperation.

Having distinguished levels of agency and interaction, my final point holds that scholars may refer to two levels of structure: the level of agents and the systemic level. Theories based on

the former explain outcomes by reference to the attributes or interactions of the system's parts, while theories based on the latter explain outcomes by referring to the structure of the system itself. These are generally referred to as *micro-structure* and *macro-structure* levels (Chia, 1996: 57; Wendt, 1999).

Atomistic reductionism, i.e. explaining outcomes by referring *only* to the properties of agents in an “inside-out” fashion, is seen by many as problematic, because it effectively assumes that agents are autistic and thus cannot be affected by the structure of their surrounding social environment (Duncan, 2000: 3). Most theories built on the premises of methodological individualism, such as game theory, will generally assume *some* form of structure to explain outcomes.²² Consider the classic case of the prisoner's dilemma game, in which players (1) can choose between cooperating and defecting, (2) have a clear order of preferences (DC>CC>DD>CD), (3) are unable to establish credible commitments. The outcome of the game, which “is sub-optimal and unintended,” is “forced on rational agents by the *structure* of their situation. The actors' attributes alone cannot explain this result; what matters is how they interact, the outcome of which is *emergent from* rather than *reducible to* the unit level.” (Wendt, 1999: 148)

While studies relying on a form of micro-structure to explain agents' interactions abound (Dearden and Lilien, 2001; Nalebuff *et al.*, 2007), a few studies also refer to macro-structure to explain coopetition. This is notably the case of Tsai (2002) who, when analyzing coopetition between subsidiaries in large multinational enterprises (MNCs), sees cooperation and competition as variables directly influenced by the hierarchical structure of the MNC.²³ Coopetition is thus not merely determined by the attributes and immediate interactions of

²² This is a general precept of structuration theory, which “virtually implies that action can and should only be analyzed with reference to structure; and structure only with reference to agency” (Sydow and Windeler, 1998: 266).

²³ Authors such as Ghoshal and Bartlett (2005) argue that, given the heterogeneity between subsidiaries within MNCs, “macro-structural analysis alone might not be enough, and might need to be complemented with micro-structural analyses of [the] internal differences” among subsidiaries role within the intra-organizational network (Ghoshal and Bartlett, 2005: 89).

agents; instead it is explained by a larger structure of centralization and control within the MNC.

Structure level	Characteristics	Examples
Micro	Explains coopetition by referring to the properties of agents and the structure of their immediate interactions.	Dearden and Lilien (2001), Nalebuff <i>et al.</i> (2007)
Macro	Explains coopetition by referring to the structure of a larger system of which agents are part.	Tsai (2002)

Table 4. Two levels of structure

The difference between what scholars have so far termed “intra-organizational” and “inter-organizational” coopetition essentially boils down to a difference in structure. Agents can be analyzed at the level of the individual, the group or the organization both *within* and *outside* organizational boundaries, but in either case they will not be facing the same structural effects.²⁴ For instance, the structural constraints of a subsidiary, an intra-organizational agent, are obviously not of the same nature as those of an independent firm, even if they are similar in size. Each of these organizations faces entirely different types of environmental and institutional constraints.

CLASSIFICATION OF LITERATURE

As the previous sections, differences regarding levels of analysis among scholars essentially boil down to diverging assumptions regarding agency, interaction and structure. I also made a distinction between *intra*- and *inter*-organizational structural contexts, which will here serve as a first category for classification.

On the one hand, research on *intra*-organizational coopetition has covered agents of very different sizes. I therefore subdivided intra-organizational research into two categories reflecting the type of agents studied by scholars: a first category consisting of individuals,

²⁴ See, as an example, Van Wijk, Jansen and Lyles (2008).

teams, and project groups; and a second category consisting of subsidiary-oriented research. On the other hand, research on *inter-organizational* coopetition was much more homogeneous in terms of agency, considering that the vast majority of studies consider the firm as the principal unit of analysis. Differences among scholars were rather related to issues of interaction and structure. I therefore subdivided inter-organizational research in two subcategories: the first covers dyadic inter-firm relations, while the other considers studies at a broader network level.

Another dimension concerns the division of literature according to three broad areas of interest in empirical research: (1) the *drivers*, (2) the *process*, and (3) the *outcomes* of coopetition, a categorization which has already been suggested by Bengtsson *et al.* (2010). The first category concerns research interested in the origin of coopetition as a social phenomenon. Literature in this category would be concerned by questions such as: why does coopetition occur? What drives firms into entering coopetitive relationships? What factors, if any, influence the passage from a non-coopetitive state into a state of coopetition? The second category concerns coopetition as a process: how do coopetitive relationships unfold and evolve? How are coopetitive relationships managed over time? The third category covers research concerned with the consequences and results of coopetition, and is concerned by questions such as: what does coopetition lead to? How does coopetition affect performance? These categories were used to summarize and classify existing empirical literature (Table 5). While further subdivision of literature would have been possible, I restricted my classification to the categories outlined above for clarity purposes. As the table demonstrates, the majority of recent research has been concentrated in the field of *inter-organizational* coopetition.

		Drivers	Process	Outcomes
Intra-organizational	Individuals, teams and groups	Rossi and Warglien (2009), Ghobadi <i>et al.</i> (2010)	Burström (2012), Ritala <i>et al.</i> (2009)	Luo <i>et al.</i> (2006), Burström (2012), Lin <i>et al.</i> (2010), Ghobadi and D'Ambra (2012)
	Business units and subsidiaries	Luo (2005)		Tsai (2002)
Inter-organizational	Dyadic relations	Brandenburger and Nalebuff (1996), Bengtsson and Kock (1999, 2003), Padula and Dagnino (2005), Di Guardo and Galvagno (2007), Gnyawali and Park (2009), Osarenkhoe (2010)	Luo (2004), Di Guardo and Galvagno (2007), Chin <i>et al.</i> (2008), Morris <i>et al.</i> (2010), Camison-Zornova <i>et al.</i> (2008), Eriksson (2008), Ritala <i>et al.</i> (2009a), Cassiman <i>et al.</i> (2009), Garraffo and Rocco (2009), Wilhelm (2011)	Brandenburger and Nalebuff (1996), Loebbecke <i>et al.</i> (1999), Bonel and Rocco (2007), Bonel <i>et al.</i> (2008), Ritala and Hurmelinna-Laukkanen (2009), Rodrigues <i>et al.</i> (2011)
	Network	Brandenburger and Nalebuff (1996), Baum and Korn (1999), Gnyawali and Park (2009), Garaffo (2002), Kotzab and Teller (2003), M'Chirgui (2005), Carayannis and Alexander (2001), Gnyawali <i>et al.</i> (2006), Wang and Krakover (2007), Okura (2007, 2008), Meade <i>et al.</i> (2009), Tidström (2009), Mione (2009), Choi <i>et al.</i> (2010)	Levy <i>et al.</i> (2003), Tzu-Ju and Bourne (2009), Roy and Yami (2009), Rusko (2010), Kock <i>et al.</i> (2010), Walley and Custance (2010), Kylänen and Rusko (2011), Wilhelm (2011)	Brandenburger and Nalebuff (1996), Bengtsson and Kock (2000), Afuah (2000), Quintana-Garcia and Benavides-Velasco (2004), Ting-Hua and Tzu-Ju (2005), Nalebuff <i>et al.</i> (2007), Ritala <i>et al.</i> (2008), Robert, Marques and Le Roy (2009), Seperi and Fayazbakhsh (2011), Gnyawali and Park (2011)

Table 5. A classification of existing literature

The following sections seek to review existing literature by classifying publications according to the levels of analysis outlined above. The first section covers research on intra-organizational competition. A second section then exposes research related to inter-organizational competition.

Inter-organizational coopetition

Coopetition at the dyadic inter-firm level

Drivers of inter-firm coopetition

Dagnino and Padula (2005) distinguish two categories of drivers behind increased coopetition: *environmental* factors, which are exogenous to the relationship between two firms, and *dyadic* factors, which are endogenous to the relationship (Dagnino and Padula 2005: 2-3) Di Guardo and Galvagno (2007) argue that a firm's propensity to coopete derives from its dynamic capabilities originating through the creation, integration and reconfiguration of the alliance competencies formed through its cooperative activity. The authors suggest that if alliance competencies are created through the experience and learning activity related to a cooperative relationship, firms will maximize profits by deploying them in their cooperation with other partners. Chin *et al.* (2008) identify factors which seem critical to successful coopetition: management, leadership development of trust, and long-term commitment to the relationship. Morris *et al.* (2010) similarly measure the level of cooperation with competitors among Turkish SMEs and find that relationships with competitors are predicated on mutual benefit, trust and commitment.

The process of inter-firm coopetition

Camison-Zornova *et al.* (2008) show that in coopetition, the two sides of behaviour (cooperative and competitive) provide greater incentives to improve knowledge development. The authors argue that the objective of coopetition should be the joint creation of new knowledge by partners. This type of collaboration can be differentiated from other types of alliances where the sole purpose is to absorb knowledge from the partner.

Eriksson (2008) stresses the importance of balancing cooperation and competition in buyer-supplier relationships. Grounding his analysis on a transaction cost framework, the author suggests that total focus on cooperation in the buying process is only suitable when asset specificity, frequency and duration of the interaction, and uncertainty are high, while a total

focus on competition is only desirable when they are very low. In between these points, a simultaneous mix of competition and cooperation is more suitable.

Ritala *et al.* (2009a) present an explorative case study of the Finnish mobile TV service development. Services differ from products in many important ways, most importantly in terms of intangibility, difficult intellectual property rights protection and the need for extensive collaboration. The case indicates that cooperation is prevalent in the earlier phases of service development, while competition is emphasized in the later phases which are closer to commercialization, and suggests that the main success factor in the governance of coopetitive service development is the presence of a flexibility allowing firms to operate in multiple contexts and in several levels of interaction at the same time.

Luo (2004a, 2007) is arguably the first to promote the study of coopetition in an international perspective, most notably between MNCs. The originality of Luo's approach lies in his quest to understand why different MNCs will be facing different variations of coopetition, and what makes coopetition change over time. The author notes that competition may occur "at *multiple points* (multiple nations and multiple product lines) and via *multiple units* (multiple subsidiaries and divisions)" and also notes that firms may compete "for *inputs* (e.g., technology, information, human resources, natural resources, indigenous supplies, and favourable government treatment) as well as *outputs* (e.g., orders, contracts, and market share)" (Luo 2007: 130).

Outcomes of inter-firm coopetition

Bonel and Rocco (2007) study the particular case of an Italian drinks and bottling company that survived intensive competition in the soft drinks industry thanks to a coopetition-driven strategy. The firm signed multiple agreements with the big players in the industry, including Schweppes, Coca-Cola and Pepsi, thereby becoming engaged in production for competitors and allowing it to achieve higher volumes and revenues. However, this turned out to pose several problematic issues for the firm: it started facing increasing pressures for organizational change and risked finding itself in a comparatively weaker position with respect to the partner. The authors hence note that there may be negative aspects to coopetition.

Bonel *et al.* (2008) develop a more formal approach by developing an analytical model of coopetition issues and argue that coopetition is not always beneficial: once the organization has committed itself to a certain level of collaboration with an external partner, the benefits of coopetition begin to unravel. Their model thus fixes upper and lower boundaries to the intensity of coopetition, within which the strategy is not allowed to degenerate. This joins up with Zineldin's (2004) earlier idea that although it can be beneficial, there is also a "dark side" to coopetition.

Gnyawali and Park (2009) argue that coopetition strategy helps SMEs develop their ability to effectively pursue technological innovations. The authors develop a multilevel conceptual model consisting of factors at the industry, dyadic, and firm level to understand the drivers of coopetition as well as the benefits and costs of coopetition for SMEs. Because of resource constraints and ongoing challenges from large competitors, SMEs are most likely to benefit from coopetition. The authors argue that executives need to develop a "coopetition mindset" (Gnyawali and Park 2009: 324).

In a later study (Gnyawali and Park, 2011), the authors examine the case of coopetition between Samsung Electronics and Sony Corporation. The authors argue that even such giants cannot "go it alone" given the technological trends, and are thus compelled to seek appropriate partners – even rivals – to pursue opportunities. The presence of a coopetition mindset is "critical for the formation of coopetition," while "superior and complementary resources and balance of such resources between the partners were critical for firms to develop their relationship in a more balanced way, to maintain interdependence, and subsequently generate substantial positive outcomes from the relationship." (Gnyawali and Park, 2011: 658).

Coopetition between multiple firms

Drivers of coopetition between multiple firms

Bengtsson and Kock (2000) maintain that in a relation of coopetition, the costs for developing new products are divided among the cooperating companies, lead time is

shortened, and each company contributes with its core performance. Furthermore, the authors argue that cooperative and competitive activities can be separated depending on the activities' degree of proximity to the customer and on the competitors' access to specific resources. In short, the closer the activity is to the customer, the more likely firms in the same industry will engage in competition. For example, Swedish brewing firms work together in recycling used bottles, but they compete in product development and distribution. Moreover, the authors maintain that a firm can play different roles depending on the available resources and the activities being performed. However, the firm as such does not act. It is rather individuals or groups of individuals, units and teams within the organization that act and perform different roles. Accordingly the roles performed will vary between different activities and over time.

Garaffo (2002) notices how coopetition seems prevalent among business affected by emerging technologies, and suggests that competitors decide to cooperate because such industries are characterized by the prevalence of "networks of innovators" seeking the development of new technologies as well as market share; competitors are therefore incited to adopt coopetition in order to exchange existing knowledge, collaborate on R&D activities and establish new standards.

Kotzab and Teller (2003) show how various firms in the European grocery industry formed an alliance, through the European efficient consumer response initiative, in order to implement cooperative strategies for increased supply chain efficiency. Players within the industry are nonetheless confronted with intensive price competition. The authors thus demonstrate that competition and collaboration can be performed at the same time, even in a very competitive European grocery industry.

Okura (2007) shows how Japanese insurance firms both cooperate and compete in different domains. The firms generally compete in policy sales and insurance premiums, but cooperate when it comes to investing resources to reduce accident probability and damage to the insured. The reason is that such investments generally cause positive spillover effects from which competitors can profit. Instead of investing individually, insurance firms create

alliances in order to pool their investments and thereby reduce accidents and damages. Such coopetitive strategies are useful in that they greatly reduce free-rider problems. This stands in sharp contrast to Okura's (2008) study of the way firms share information on accidents. For instance, in the automobile industry, manufacturers will adapt their products in order to raise security based on information acquired from past accidents. Firms would have an advantage in sharing such information and pool their resources to work out new security solutions. In practice, however, all firms want to receive accident information but do not want to give it out themselves. The desired situation of coopetition may thus not be realized voluntarily.

Meade *et al.* (2009) study the soft drink industry to establish how firms may cooperate in the specific activity of branding. The authors use game theory to study two particular phenomena, namely (1) the rotation patterns of promotion among competitors, and (2) the competitive dynamics among big and small brands. The authors' empirical findings confirm that small brands promote strong brands for a mixture of cooperative and competitive reasons. These findings echo Bonel and Rocco's (2007) earlier analysis of local Italian soft drink companies.

Mione (2009) notes that, according to the institutional approach, rules are required for the emergence and the functioning of a market. In her paper, she empirically validates that companies recognise the ability of norms to organise a new market. She observes that those who are most active in the development of standards are the leaders and innovators in the technology space. The author argues that these businesses must cooperate because consensus is needed to establish institutional standards, but at the same time, they compete with each other to promote their own technology and chose the direction that is the most beneficial to them. Thus, 'coopetition' to establish norms appears to be a required phase of entrepreneurship strategy.

Choi *et al.* (2010) study how coopetition emerges within an industry using a case study of the screw cap initiative in the Australian, New Zealand and US wine industries. The study suggests that five factors seem to drive the formation of horizontal coopetition: strategic

common goals, greater expected collective benefits, safeguards against knowledge transfer, intra-industry complementarities, and strong ties in the cooperative network.

Broløs (2009) builds on an explorative case study of coopetition in the Danish financial sector to develop a framework for cooperation in the early phase of innovation. The article argues that cooperation between competitors may be an advantage in this early phase of idea generation because network embeddedness may provide trust, a common understanding of basic conditions and a broader common knowledge base, while differences in specific capabilities and business models may still ensure some diversity. The article presents evidence from an explorative case study concerning the IT cooperation of 75 Danish savings banks. The case supports the existence of four major prerequisites for coopetitive innovation: knowledge, diversity, close relational ties and some mechanism of conceptualisation or exploitation.

The process of coopetition between multiple firms

Levy *et al.* (2003) use data from U.K. SMEs to investigate the management of knowledge sharing under coopetition using a game theoretic framework. The authors seek to measure three variables: *synergy* (when players exchange knowledge, the extent to which cooperation yields additional value beyond the sum of the parties' individual knowledge), *leverage* (the potential of the 'knowledge receiver' to increase its value by exploiting the shared knowledge individually beyond the cooperation) and *negative reverse impact* (the extent to which a receiver's use of the knowledge lowers the sender's original value). The results show that, contrary to expectations, there is evidence of strong synergy and leverage even among cost focused SMEs.

Tzu-Ju and Bourne (2009) contribute to the issue of competition and cooperation between networks. By using a case study of two healthcare networks in Taiwan, they seek to demonstrate how the evolution of relations between the two networks was characterized by three phases: firms first initiated competition, then cooperation and finally coopetition. Unlike previous research, which often sees coopetition as a phenomenon that depends on the closeness of a given activity to the customer (Blomqvist *et al.* 2005, Walley 2007), the authors

claim that coopetition depends on the “balance between the forces for cooperation and for competition” (Tzu-Ju and Bourne 2009: 377) – i.e. the degree of complementarities between their respective structures and activities.

Roy and Yami (2009) aim to link two new conceptions of strategy: coopetition and disruptive strategy. Their study focuses on the particular context of an oligopoly, and seeks to figure out what happens, in terms of inter-firm relations, when a dominant firm disrupts the competitive rules of the game. In this way, the authors investigate the case of the multiplex movie theatre's introduction in France. This event characterises an innovation strategy carried out individually by one of the dominant firms and going against the collective interests of the oligopoly formed by Gaumont, Pathé and UGC. Among the main results, the study shows that an innovation strategy leads dominant firms to be more cooperative and more competitive over time.

Outcomes of coopetition between multiple firms

Drawing upon Brandenburger and Nalebuff's work, Afuah (2000) seeks to explain what happens when technological change renders coopetitors' capabilities obsolete. “Coopetitors” here refers to the customers, suppliers and complementors found in the firm's value net, with whom both cooperation and competition is possible. The author finds that the more a technological change renders obsolete the capabilities of a firm's suppliers and customers, the poorer the firm performs.

Quintana-Garcia and Benavides-Velasco (2004) study how small and medium high technology firms will both compete and cooperate in order to perform their new product development process, and how coopetition strategies affects innovative capability. Their results show that cooperation with direct competitors contributes positively and significantly to product lines. Collaboration with large diversified companies was also found to be beneficial, although to a lesser extent. Other extensive studies on coopetition within knowledge-based industries include M'Chirgui's (2005) study of the smart card industry and Carayannis and Alexander's (2001) study of coopetition in the broadband satellite industry.

Both studies emphasize how the success of one firm remains dependent on the success of other firms, even though they are all engaged in full-fledged competition over market share.

Ting-Hua and Tzu-Ju (2005) investigate a network composed of thirteen companies in the Taiwan simulator industry, collecting data from several bidding contracts in the 1995 to 2002 period. The authors develop equations to assess both competition intensity, cooperative intensity and coopetition intensity among the observed firms. The authors observe that actors in the network compete first for getting the bid and then cooperate by delivering subcontracts to competitors. Both competitive frequency and cooperative frequency varied with different dyads.

By analyzing data on the coopetitive network structure and competitive behaviour of firms in the global steel industry, Gnyawali *et al.* (2006) find that firms vary in systematic ways in their ability to extract competitive benefits from their coopetitive networks, and that firms in superior network positions are better able to develop their competitive capabilities through a network of ties and increase competitive advantage.

In their analysis of the effect of strategic alliances between competitors on firm performance, Ritala *et al.* (2008) show that a high relative number of strategic alliances among a group of competitors contributes negatively to firm performance, implying that firms should be aware of the risks that are included in cooperating with too many of their most direct competitors.

Robert, Marques and Le Roy (2009) analyze the existence of coopetition within French professional football, an industry characterised by a high number of SMEs. The authors rely on factor and cluster analyses based on the economic and competitive variables of organizations that participated in the French Ligue 1 and Ligue 2 during the 2005-2006 season. The results show the existence of coopetition within the sector in so far as some clubs base their strategies explicitly upon this type of behaviour. Moreover, this research shows that the more a club collaborates with its competitors, the more it performs in terms of sports and finance.

Wilhelm (2011) studies a number of cases of buyer-supplier relations in the German and Japanese automobile industries, in order to analyze how buyers can manage network level

coopetition. The cross-case analysis indicates, for example, that Toyota's supplier association meetings play a crucial role in creating both strong ties suppliers and carmaker, but also in creating loose ties between the suppliers themselves, as rivals are no longer "faceless" when they meet physically and are given a chance to monitor each other. Moreover, Toyota's process-oriented (rather than outcome-oriented) supplier development provides it with better insights on the suppliers' actual performance. This knowledge can be used to stimulate competition between suppliers, through the channeling of information and Toyota's practice of ranking its suppliers. Meanwhile, formal learning and socialization groups are likely to enhance greater cooperation between suppliers.

Intra-organizational coopetition

Coopetition among individuals, teams and groups

Rossi and Warglien (2009) regard their study as a "first attempt to address, in laboratory-controlled conditions, issues pertaining to the determinants of intraorganizational coopetition." (Rossi and Warglien 2009: 271) Results highlight how reciprocity and fairness both seem to "to lie at the basis of mixed-motives relationships both at the horizontal level (among peers) and at the vertical one (among agents and their principal)." (Rossi and Warglien 2009: 271)

Luo *et al.* (2006) study the joint occurrence of cooperation and competition (coopetition) across functional areas within high-tech firms using responses from middle managers and top executives. The authors find that the presence of coopetition enhances a firm's customer and financial performance. However, this influence is mediated by market learning, which indicates that performance returns to cross-functional coopetition occurs through an underlying learning mechanism.

Lin *et al.* (2010) provide an interesting study of how interpersonal relationships in teams comprise elements of both competition and cooperation. The study finds that competitive conflict has a negative impact on *knowledge sharing* but a positive impact on *job effectiveness*,

and suggests that the most advantageous relationship between team members is a form of coopetition, where the members both cooperate and compete with one another, and which leads to optimal knowledge sharing and job effectiveness.

Burström (2012) specifically studies how interorganizational coopetition increases the complexity of managing new product development projects. Individuals need to perform activities in relation to other individuals inside and outside the project, but also in relation to two or more hierarchies since such projects may involve multiple organizations. In other words, the “[organizational] boundary complexity increases when cooperating partners in a new product development project simultaneously compete in other areas” (Burström 2012: 28). Burström is especially concerned with the effects that this increased complexity has on the actual practice of project managers, who effectively act as “boundary actors” at the frontier of the firm’s interaction with other organizations.

Ritala *et al.* (2009) focus on coopetition between intra-firm innovation projects. The authors propose a conceptual process model encompassing the interplay of cooperation and competition for knowledge creation, and suggest that “coopetition has an own distinct logic of increasing the benefits of knowledge sharing and utilization, which can be used in many parts of the innovation process” (Ritala *et al.* 2009: 70).

Ghobadi, Daneshgar and Low (2010) analyze software development project teams, which are generally cross-functional in nature. Combining a game theoretical model of knowledge sharing and social interdependence theory, the authors identify the constructs that represent effective knowledge sharing. Three categories of factors affecting knowledge sharing are identified: team characteristics, project characteristics, and communication characteristics.

In their quantitative study of coopetition in cross-functional project teams, Ghobadi and D’Ambra (2012) indentify three dimensions of cooperation: cooperative task orientation, cooperation communication, and cooperative interpersonal relationships, which were proved to directly affect knowledge sharing behaviors. In addition, the study shows that different dimensions of competition generate mixed impacts. Competition for tangible resources was found to positively affect cooperative communication of individuals, whereas competition for

intangible resources (political competition) had negative impacts on cooperative communication and task orientations (Ghobadi and D'Ambra, 2012: 1).

Cassiman *et al.* (2009) study a total of 52 R&D projects within a single firm, STMicroelectronics, and note that balancing cooperative and competitive forces in the innovation process to both co-create and capture value has become crucial to profit from innovation. The authors specifically distinguish three strategic dimensions of R&D alliances: when to partner, with whom to partner, and how to govern the partnership. The decision with whom to partner and how to govern the partnership specifically relies on a four-step process, where the type of relationship to be developed ultimately depends on the (1) basicness, (2) novelty, (3) strategic importance and (4) the ease of industrialisation of the knowledge to be developed by the firm.

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Coopetition between organizational units

As Tidström (2008) notices, the relation between an MNC's organizational units constitutes a somewhat particular form of inter-organizational coopetition, because each unit belongs to the same organization. The first studies dealing with intra-organizational competition and cooperation between organizational units were preoccupied with issues of organizational change and diversification. Mintzberg (1991) argued that cooperation and competition constitute "catalytic forces" that allow firms to cope with difficult but necessary organizational change. According to the author, cooperation is a product of ideology – the "culture of norms, beliefs and values that knit a disparate set of people" and allows them to work together (Mintzberg, 1991: 55). Ideology is what allows previously opposed units to cooperate in times

of change. However, ideology is not something inherently beneficial; it most often favours the status quo, and can therefore act as an important barrier to change. Competition, on the other hand, results from the inevitable fact that people tend to pull apart due to their differing needs and interests. These competing interests give rise to organizational politics which, if left unchecked, could literally make the organization explode. In an organization dominated by politics, “nothing remains at the core – no central direction, no integrating ideology, and, therefore, no directed effort at efficiency or proficiency or innovation.” (Mintzberg, 1991: 65) The author then argues that organizational change requires a firm to “pull apart before it can pull together again.” This is achieved by combining the forces of competition and cooperation: “pulling together ideologically infuses life into an organization; pulling apart politically challenges the status quo; only by encouraging both can an organization sustain its viability.” (Mintzberg, 1991: 65) Mintzberg notes that this balance of competition and cooperation need not be static; it can in fact be considered as a dynamic, evolving equilibrium, to “avoid the constant tension between ideology and politics.” (Mintzberg, 1991: 66) One limitation to this perspective is that the author effectively equates ‘cooperation’ with ideology, and ‘competition’ with organizational politics. This, as my previous theoretical review would indicate, constitutes a rather narrow view of cooperation and competition; yet one could argue that Mintzberg’s idea that both types of mechanisms should be dynamically combined in the management of a firm is certainly noteworthy.

Hill, Hitt and Hoskinsson (1992) compare the structure of multinational firms that diversified in related industries to those that did not, and argue that each type of diversification leads to its own type of exclusive benefits: related diversification allows *economies of scope* to be realized, while unrelated diversification can lead to *economies of governance*. Economies of scope are achieved when a firm’s divisions and units invest their resources in complementary activities. This requires headquarters to stress cooperation between divisions, something which can sometimes only be achieved through increasingly centralized decision-making. Economies of governance, on the other hand, are seen as characteristic of decentralized structures where unrelated units are given autonomy with regard to their operating decisions, allowing unit managers to be held accountable for their

unit's profitability. As Williamson's (1975) work indicates such systems are expected to produce competition among units for capital. The authors argue that the internal *ethos* of firms that diversified into unrelated industries is explicitly competitive, while firms that diversified into related industries were much more centered on a cooperative culture. However, their findings have been described as statistically modest (Martin and Eisenhardt, 2010: 266). They also stand in stark contrast to Birkinshaw and Lingblad's (2005) working hypothesis, also shared by some other scholars (Khoja, 2008), according to which related diversification is more likely to create similarities in the activities of units, and thus more competition for product development charters and internal resources. As such, the relation between the three big variables of diversification, cooperation and competition remains ambiguous.

Only two authors explicitly use the term "coopetition" in their analysis of simultaneous competition and cooperation between organizational units. Tsai (2002) investigates the effectiveness of mechanisms of knowledge sharing in intra-organizational networks that consist of both collaborative and competitive ties among organizational units, demonstrating how formal hierarchical structure (centralization) has a significant negative effect on knowledge sharing, and informal lateral relations (social interaction) have a significant positive effect on knowledge sharing among units that compete with each other for market share, but not among units that compete with each other for internal resources. Luo's (2005) conceptual paper develops a typological framework that delineates coopetition within a globally coordinated multinational enterprise, referring to the simultaneous competition and cooperation between its geographically dispersed subsidiaries. To gain new knowledge and exploit economies of scope for their business operations, these units have to cooperate with each other and learn from each other. However, they are also required to compete with each other, as they are constantly compared on how they their objectives and tasks (financial or other) have been achieved. The author suggests that subsidiaries cooperate along four dimensions, including technological, operational, organizational, and financial cooperation, while they also compete in three aspects, including parent resources and support, system position, and market expansion.

DISCUSSION AND CONCLUSION

The present literature review reveals that a large number of diverging interpretations exist as to what coopetition should refer to and how it should be modelled; it also suggests that most of these differences are due to underlying theoretical assumptions. Scholars undoubtedly have different epistemological and ontological premises, as one would expect from a growing field of research. For scholars such as Brandenburger and Nalebuff (1996), coopetition refers to a strategic framework or *mindset*. The authors do not try to depict the essence of some new phenomenon, but rather seek to build a theoretical framework to help managers cope with a complex world. Emphasis is placed on the instrumental value of the concept rather than its ontological referent; in other words, rather than spending time to define what coopetition “is,” the authors focus on the potential benefits of simultaneous competition and cooperation. In contrast, many later scholars would come to focus exclusively on a positive or “social fact” interpretation of coopetition, with much attention being directed toward uncovering the intrinsic properties of “coopetitive relationships” (Bengtson and Kock, 2000; Padula and Dagnino, 2007). As Tidström (2008) already indicated, these two strands somewhat reflect a praxis-versus-theory, or normative-versus-positive, cleavage. Both may provide valuable insights: from a positive perspective, coopetition allows a holistic or systemic understanding of inter-organizational interactions, and a more accurate understanding of organizational complexity; from a normative or strategy-oriented perspective, coopetition provides a useful way to think about interactions, as it can help managers avoid a narrow-minded focus on either competition or cooperation.

One of the more problematic characteristics of existing literature is that very few publications provide a rigorous analytical examination of how competition and cooperation should be defined, and what this implies for the conceptualization of coopetition. This obviously poses a problem as the concept of “coopetition” is itself built upon the concepts of competition and cooperation. Future research may perhaps achieve greater coherence and validity by first clarifying premises regarding competition and cooperation. Moreover, the importance of critical evaluation should not be neglected. One of the major risks for any emerging strand

of academic literature is that it becomes subject to a proliferation of theories that go about without ever being empirically or analytically questioned (Edwards, 2010).

The review also clearly indicates that certain fields are currently under-researched and would therefore benefit from increased academic inquiry. This is most notably the case for intra-organizational coopetition, particularly between internal organizational entities such as business units or subsidiaries. Future research could thus significantly contribute to the field by delving into this topic.

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**SECOND PAPER / COMPETITION, COOPERATION
AND COOPETITION BETWEEN SUBSIDIARIES**

INTRODUCTION

There is an interesting analogy to be made between today's multinational corporations and the mystery surrounding the construction of the ancient Egyptian Pyramids. How could a society build such colossal monuments some four and a half *millennia* ago? The Greek historian Herodotus recounts that the Pyramids were built with "400,000 slave workers over 20 years." Along with Biblical depictions of the Pharaohs as ruthless despots, this has led to popular narratives portraying the Pyramids as the fruit of the effort of many unwilling slaves whose sole motivation to work was the whip. However, archeological excavations have recently suggested otherwise. First, the Pyramids were not built by slaves or foreigners, but rather by regular Egyptian citizens. The inhabitants of Egypt at the time were deeply religious, and must have believed that by building their Pharaoh's tomb, they would facilitate his rebirth as well as their own and that of Egypt. Second, they did not operate as a homogeneous group of unskilled labor. In fact, workers operated in dozens of groups, each of which was responsible for a specific part of the Pyramid complex. These groups were further subdivided into several units that competed against each other in a race to get the work done.²⁵

The most fascinating aspect of this story is not the fact that Egyptians managed to lift twenty-ton limestone blocks. It is the clever way in which social mechanisms were used to efficiently achieve collective goals.²⁶ Egyptian authorities did not only form and instruct worker groups on an individual basis: they made the groups cooperate with each other. Not only that, but they *also* made them compete. This competition was carefully contained: its effect was to reduce slack and increase efficiency, without compromising the social coherence of the Pyramid-building project. Being ancient history, it is unsurprising to say that we still know little about the specifics of this building process.

²⁵ These facts were previously stated by Virginia Morell (2001) in *National Geographic* : http://ngm.nationalgeographic.com/ngm/data/2001/11/01/html/ft_20011101.5.fulltext.html

²⁶ This need not be the result of a planned process. See Chia and Holt (2009).

More surprising is the fact that there is still relatively little academic coverage of the way competition and cooperation are managed within today's multinational corporations (MNCs). Traditional organization theory used to describe the multinational corporation as an "internally homogeneous, coherent, and consistent" organization (Ghoshal and Bartlett 1990: 609). This, however, has been contested by Ghoshal and Bartlett's (1989, 1990) idea of the MNC as a differentiated inter-organizational network, where both *headquarters-subsidary* and *subsidiary-subsidary* relations can vary widely from one case to the next. The authors conceptualize inter-subsidary relations as a network of transactions involving the transfer of resources and knowledge from one unit to another, and where each subsidiary operates in its own unique industrial context. However, while Ghoshal and Bartlett explicitly focused on subsidiaries' relations with headquarters as well as with other entities in their external environment, relatively little attention was given to the relations among subsidiaries within the MNC itself. Moreover, much inquiry remains to be done regarding the heterogeneity of the differentiated MNC network and its implications for inter-subsidary relations. A fairly limited number of scholars (Ghoshal and Nohria, 1997; Tsai, 2002; Luo, 2005) have since argued that inter-subsidary relations consist of both cooperative and competitive interactions that coexist simultaneously, leading some to adopt the concept of "coopetition."

Aside from these few publications, little research has sought to understand the extent to which mechanisms of competition and cooperation may be combined simultaneously in practice. In order to explore and uncover new insights in this apparent gap, my research asks: *What are the factors that affect inter-unit coopetition?*

The paper is structured as follows. Drawing upon available literature, a first section lays out the theoretical foundations of the study. Here the concepts of competition, cooperation and coopetition are analyzed and defined. These concepts serve as a theoretical underpinning for the subsequent literature review, which identifies distinct factors affecting competition and cooperation among units within MNCs. An exploratory case study is then presented in the

third and fourth sections, with the aim of providing a first empirical corroboration as to the plausibility of these factors.

THEORETICAL BACKGROUND

What constitutes competition and cooperation? Although often taken as granted by scholars, I contend that both of these concepts deserve an explicit analytical clarification. As I will show, several understandings of competition and cooperation coexist. The list of definitions and mechanisms elaborated in this section is not exhaustive and does not aspire to be so; my intent is rather to show that what competition or cooperation “is” should not so easily be taken for granted.

Competition

Two broad definitions of competition pervade economic and managerial literature: competition as a *process* of rivalry and competition as an *end-state* (or equilibrium) of rivalry between interacting agents (Blaug, 2001). The first can be traced back to classical economists such as Adam Smith, who understood competition as a property of a relationship between economic actors.²⁷ Smith’s notion of competition has been described as “rivalry in race – a race to get limited supplies or get rid of excess supplies.” (Vickers, 1995: 4) This definition, which envisions competition in terms of individual rivalry, is often considered as being closer to the “common sense” understanding of competition as it is frequently conveyed in business discourse.²⁸

²⁷ According to Trapido (2007), Smith understood the intensity of competition as something that depended on (1) the degree to which the actors strive for the same third party resource, and (2) the degree to which they do it independently.

²⁸ An observation which was first made by Friedrich Hayek (1949) and then echoed by Milton Friedman, for whom “competition has two different meanings. In ordinary discourse, competition means personal rivalry [...] in the economic world, competition means almost the opposite.” (Friedman, 1962: 119)

A second theoretical development of competition began to emerge with the advent of marginalism and perfect competition theory in the mid-nineteenth century.²⁹ This conception has since endured to become part of neoclassical economic theory. Competition in the neoclassical sense is often understood as a “state” or “situation” (Vickers, 1995). While classical economists such as Smith saw competition as a particular characteristic of the interaction between actors, neoclassical economists would define competition as a static property attributed to an aggregation of individual actors.³⁰ A market is termed “competitive” when no single actor has the power to significantly influence the demand or supply of a good to his own advantage. Competition is accordingly seen as the opposite of *collusion* and *monopoly*,³¹ terms which neoclassical economists generally do not clearly differentiate from cooperation. This stands in contrast to many earlier economists such as Smith,³² for whom “neither competition nor monopoly was a matter of the number of sellers in a market; monopoly did not mean a single seller but a situation of less than perfect factor mobility and hence inelastic supply; and the opposite of competition, was not monopoly, but co-operation.” (Blaug, 2001: 38)

A relevant question for strategic management concerns the normative evaluation of competition, that is to say how one may answer the question: “is competition a good thing?” Proponents of the end-state definition often see competition as an inherent characteristic of markets. But markets, it should be noted, are able to function properly thanks to an amalgam of institutions: the recognition and respect of private property, the proper enforcement of

²⁹ According to Blaug, “only in 1838, in Cournot’s *Mathematical Principles of the Theory of Wealth* was the process conception of competition totally displaced by the end-state conception of market-clearing equilibria.” (Blaug, 2001: 38) The author provides an excellent account of the historical development of perfect competition theory.

³⁰ In his *Soziologie* (1908), Georg Simmel also made an interesting distinction between *conflict* and *competition*. Simmel “considered conflict to be a social relation in the sense that parties to conflict not only take one another into account but also orient their actions to one another. He conceived of competition as the indirect and diffuse (hence asocial) influences among actors that arise from their joint striving for the same limited outcomes.” (Hannan and Carroll, 1991: 27)

³¹ See McNulty (1968), pp. 639-640.

³² Adam Smith, David Ricardo, Karl Marx, Thorstein Veblen, as well as most Austrian economists viewed competition as “a dynamic process of rivalry and contention, not a market structure.” (Baskoy, 2003)

contracts, free and consensual exchange (North, 1991). An economic system cannot be called a market unless people follow these rules of the game.³³ It is only because these rules are being followed that a competitive equilibrium emerges as self-interested individuals seek to satisfy their preferences. According to mainstream economists, a state of unhampered or “perfect” market competition is, *ceteris paribus*, a state of Pareto efficiency, where no individual can be made better off without making someone else worse off. Insofar as Pareto efficiency is good, so is competition. Perfect competition is thus valued because it is seen as the *only* possible state in which resources are allocated efficiently (Hausman, 2007: 242). However, Lipsey and Lancaster’s (1956) theory of the second-best suggests that when the ideal conditions for perfect competition cannot be realized, the best way to increase economic efficiency is not necessarily to bring the market “as close as possible” to a state of perfect competition. In cases where several imperfections exist, fixing a specific market imperfection could just as much decrease the efficiency of the system.³⁴ This suggests that it can be preferable to evaluate the different factors affecting competition and examine whether they can lead to positive social consequences in their *specific empirical context*. Determining if a given form of competition delivers a positive outcome requires, first, that we pay closer attention to the particular details of the process in which agents are engaged, and second, that we establish what a “positive” outcome is; in other words, that we clearly differentiate and justify both the means and ends of the competitive practice.

³³ When referring to competition within the firm, a number of scholars write of “internal markets.” (Williamson, 1975; Halal, 1994) However, speaking of markets in the context of the firm can be misleading. Competition for capital within the firm is quite different from competition in institutions such as the stock exchange. As the economist Geoffrey Hodgson notes, “the internal competition to which Williamson refers is not market competition but a struggle over power and resources between different parts of the corporate bureaucracy.” (Hodgson, 2002: 263)

³⁴ The authors’ conclusion has “the important negative corollary that there is no *a priori* way to judge as between various situations in which some of the Pareto optimum conditions are fulfilled while others are not. Specifically, it is *not* true that a situation in which more, but not all, of the optimum conditions are fulfilled is necessarily, or is even likely to be, superior to a situation in which fewer are fulfilled. It follows, therefore, that in a situation in which there exist many constraints which prevent the fulfillment of the Pareto optimum conditions, the removal of any one constraint may affect welfare or efficiency by raising it, by lowering it, or by leaving it unchanged.” (Lipsey and Lancaster, 1956: 11-12)

Unlike end-state competition, competition as a *process* is not limited to markets;³⁵ many social practices, such as leisure sports and courting, which are not necessarily based on any formal economic exchange, are also competitive. To say that agents are “competing” means that they are vying for a desired resource which cannot be divided; in other words, they are engaged in an interaction which produces winners and losers. The fact that some will – or may – have a more beneficial outcome than others creates an incentive for agents to continuously invest efforts in their attempt to obtain this exclusive outcome. Heath (2001) convincingly explains that the benefits of competition have nothing to do with its intrinsic merits; they are to be found in the fact that competition forces agents into a constant escalation of effort. Carefully designed competitive processes can thereby produce collective benefits which outweigh the losses of losers, creating what Martin (2013) calls “positive system effects.” The virtues of competition are thus to be found in the rules that structure the competitive practice and their capacity to properly constrain the actions of players. Both the way we consciously design the institutions that constrain individual behaviour, and the ability of individuals to respect these rules, are potentially subject to normative evaluation – that is, on whether individual behaviour matches collective expectations. The process of competition is thus collectively beneficial “when players exercise restraint in the strategies that they employ, when they confine their adversarial behavior to certain specific contexts, and when they refrain from allowing moral lapses on the part of other competitors to transform the entire contest into a race to the bottom.” (Heath, 2007: 367)

Likewise, competition within the multinational corporation should not simply be conceptualized as a static equilibrium, but rather as a multitude of distinct and context-specific interactions (Ghoshal and Bartlett, 1990). Some subsidiaries may be competing for financial capital, while others are competing for human resources, whereas still others are fighting for hierarchical power and control over corporate projects. These processes are not always continuous; inter-subsidiary relations can also consist of limited and emergent

³⁵ It is not uncommon for strategic management scholars to exclusively focus on microeconomic or market-based concepts of competition (Barney, 1986).

episodes of competition, leading some to write of a “competition lifecycle” in which headquarters can play a determining role in enacting or terminating the competitive process (Birkinshaw, 2001). While it may have its benefits and drawbacks, competition is perhaps best understood when defined in opposition to cooperation. I will therefore shed some light on this alternative process in my next section, which exposes some of the ways cooperation has been conceptualized in academic literature.

Cooperation

When looking for a working analytical definition of cooperation, one needs only look towards philosophers. A common assumption used to be that sharing a common goal is sufficient for an interaction to be categorized as cooperation (Tuomela, 1993). Yet some, such as Leist (2011), have recently argued in favour of a clearer distinction between “collective action” and “cooperation.” The former implies that agents share a common goal, while the latter implies that agents share a common goal *and* share a coordinated execution intention (which is equivalent to saying that they depend on each other to achieve their common goal).³⁶ What distinguishes cooperative from non-cooperative collective action are thus the shared/non-shared intentions regarding the *execution* of a common goal,³⁷ as illustrated in Table 6.

³⁶ On a similar note, social psychologist Morton Deutsch (2006) distinguishes competition and cooperation along two lines: (1) the *degree of interdependence* between the actors, and (2) the *type of action* taken by the people involved.

³⁷ Several authors have examined what the execution of a common goal implies. According to Gilbert (1992), if one individual asks “shall we go for a walk?” and the other answers “yes,” then each individual can be considered as sharing a common walking-plan, as well as an *obligation* to fulfill his part of that plan. However, Bratman (1993) argues that “intentions are subject to a demand for stability. One reason for this is that the reconsideration of an intention already formed can itself have significant costs; a second is that an agent who too easily reconsiders her prior intentions will be a less reliable partner in social coordination.” (Bratman, 1993: 110) Rational pressure would thus be sufficient to maintain stability, and reciprocal obligation is not strictly necessary for there to be a shared intention.

Collective action			
Non-cooperative collective action: shared common goal		Cooperation: shared common goal <i>and</i> shared execution intention	
Individually followed, unconditionally	Individually followed, conditionally	Full cooperation: one master plan, all sub-plans shared	Competitive or contingent cooperation: one master plan, but no sub-plans shared
Kantian non-litterer	Reciprocal non-litterer	Working together	Bargaining, sports, games, markets
Management guru recommends that GMs take the time to meet and talk with employees on Friday mornings. GMs start following the trend.	Subsidiary participates in lobbying with local authorities, but only as long as other local subsidiaries also do their share of lobbying.	Two subsidiaries agree to coach each other's staff by sending over experienced personnel.	A subsidiary wants the expertise of another unit. GMs agree to meet and bargain. Outcome is uncertain.

Table 6. Cooperation as a particular form of collective action
(Leist, 2011)

Behavioral economics has shown that people often choose to cooperate even when they can better serve their interests by acting selfishly. The motivation for cooperation thus seems to depend on context, and is not always strictly rational and egotistical. Tuomela (2005) delineates outcome-dependent drivers such as self-interest (“I-goals”) and communal interest (“we-goals”); Leist (2011) adds other categories such as intrinsic altruism and coercive social norms. Although interesting, theories on the drivers of human cooperation have for a long time remained embroiled in a nature-versus-nurture debate.³⁸ Yet this does not mean that cooperation as a process cannot lead to positive consequences. Heath (2006) convincingly makes the case that cooperation exists to create mutual benefits,³⁹ and that the primary purpose of social institutions is to secure cooperation, arguing that “if individuals simply seek to satisfy their own preferences in a narrowly instrumental fashion, they will find themselves

³⁸ See, for example, Pienkowski (2009), who provides an overview of existing conjectures regarding evolutionary, psychological and institutional determinants of selfishness and altruism; or Gintis (2011), who argues that “human characteristics are the product of gene–culture coevolution” which is “responsible for human other-regarding preferences, a taste for fairness, the capacity to empathize and salience of morality and character virtues.” (Gintis, 2011: 878) Others such as Declerck, Boone and Emonds (2013) delineate the factors explaining cooperation according to two broad categories: those of external structural incentives, and those of socially conditioned beliefs.

³⁹ On a similar note, Leist (2011) argues that *most* forms of cooperation are outcome-oriented.

embroiled in collective action problems: interactions with an outcome that is worse for everyone involved than some other possible outcome. Thus they have a reason to accept some form of constraint over their conduct, in order to achieve this superior, but out-of-equilibrium outcome.” (Heath, 2006: 313) The author contends that there are five types of mechanisms which allow such beneficial outcomes to be realized. These are: (a) economies of scale; (b) gains from trade; (c) risk pooling; (d) self-binding; and (e) information transmission.⁴⁰

Economies of scale arise from the fact that individual labor does not simply “add up” to an organizational activity; some tasks are such that adding another agent generates a disproportionate increase in output. If one subsidiary is able to produce an output of x per unit of labor, an economy of scale is present when adding a comparable unit of labor from another subsidiary increases output by more than x . *Gains from trade* arise from situations where subsidiaries may be able to achieve benefits by rearranging the distribution of goods, or tasks, among themselves. An appropriate redistribution is thus achieved through a process of exchange. This is exactly what allows a division of labor to occur. Particularly skilled individuals may agree to carry out their skilled tasks “for everyone,” while instituting a structure of reciprocity such that their other needs are taken care of by others.⁴¹ *Risk pooling* is yet another strictly cooperative process which enables risk-averse managers to deal with uncertainty regarding the possibility of outcomes which they would be unable to deal with on an individual basis. Pooling resources to insure each individual thus increases everyone’s utility. *Self-binding* is a mechanism allowing an individual to enlist others to help maintain his self-control. The mechanism allows individuals to deal with their irrational tendencies. An individual who authorizes others to punish him can guard himself against his own

⁴⁰ In business terms, one could potentially interpret these mechanisms as various ways to achieve “synergy.”

⁴¹ These two mechanisms are seen as the primary drivers of cooperation for transaction cost economists such as Hennart (1991), who argues that “cooperation between individuals can be productive for two reasons. First, some tasks require more capabilities than can be provided by a single individual and consequently can only be achieved by pooling the efforts of two or more people. Individuals also have differing abilities, and cooperation through trade allows individuals to exploit those differences by making it possible for each to specialize in tasks for which he/she has a comparative advantage.” (Hennart, 1991: 158)

preference reversals. Finally, *information transmission* allows subsidiaries to economize on learning costs. Learning can sometimes be achieved without any form of cooperation, through observation and imitation, for example. However, most knowledge is transmitted through a process of interactive learning which requires cooperation.⁴² Hence most of what we know is not a result of individual experience, but is acquired through our communication and cooperation with other individuals (Heath, 2006: 319-327).

In sum, neither competition nor cooperation refers to a clear-cut *causal mechanism*; these concepts rather refer to *categories* of interactions, which may involve different causes, processes and outcomes.⁴³ What competition and cooperation are taken to be varies considerably depending on the social phenomena being explained.⁴⁴ While differences still remain regarding the exact delimitation of these fundamental categories, their prolific use in both social science and popular discourse points to their usefulness in understanding social phenomena. Yet despite their high relevance, relatively little research has sought to understand the extent to which competition and cooperation may be *combined* in practice. This is what literature on “coopetition” has sought to understand. The following section exposes how different perspectives regarding this novel concept came to emerge within economics and business literature.

⁴² This precept lies at the heart of the knowledge-based theory of the firm. According to Kogut and Zander (1993), not only do firms possess specific capabilities to foster cooperation between individual agents, but this cooperation is precisely what makes them able to *create* and *transfer* knowledge efficiently, and thus develop firm-specific advantages (Kogut and Zander, 1993: 631). The knowledge-based theory of the firm has given rise to a literature that focuses exclusively on a specific form of cooperation, namely *knowledge sharing* (e.g. Tagliaventi *et al*, 2010).

⁴³ Mayntz (2004) argues that “part of the semantic noise [regarding the use of the term ‘mechanism’] follows from the ambiguity of many of our basic social science concepts, concepts that can refer both to a process and to a (static) outcome. ‘Cooperation’ and ‘competition’ are but two of many examples. Of course, it is entirely legitimate to label a mechanism that has been spelled out in detail by a noun that refers to a process, an outcome, or a factor. But to use a terminological label [e.g. ‘cooperation’ or ‘competition’] merely to allude to a process that remains unspecified has no more explanatory value than the simple statement of a correlation.” (Mayntz, 2004: 239)

⁴⁴ I here follow one of Kincaid’s (2012: 5) arguments regarding concepts in scientific theory.

Coopetition in the multinational corporation

The concept of “coopetition” emerged in strategic management literature during the 1990s (Brandenburger and Nalebuff, 1996; Dowling *et al.*, 1996; Lado *et al.*, 1997). Early publications were essentially preoccupied with the fact that many strategy frameworks tend to focus exclusively on either competition or cooperation, without giving much consideration to how both may be combined in practice. Existing definitions of coopetition remain faithful to a central axiom – namely that coopetition refers to the *simultaneous occurrence of competition and cooperation between agents*. Despite this broad collective agreement, a great deal of ambiguity remains as to what this axiom implies, thus giving way to a myriad of meanings and interpretations (Walley, 2007; Tidström, 2008; Bengtsson *et al.*, 2010). This semantic plasticity has led to different understandings as to what competition and cooperation are (e.g. observable behaviour, or inclination/propensity to act in a certain way), when and where they can occur (e.g. does bargaining count as competition or cooperation?), to whom agency is attributed (e.g. individuals, teams, firms, associations of firms),⁴⁵ how the agents’ interactions are to be studied (e.g. as a single dyad between two agents, a set of interactions relating to a particular agent, a larger network of agents, and so on), and the importance of social structure in explaining the actions of agents (by adopting a *reductionist* or *holistic* perspective.)

In order to reduce any such ambiguity, my study rests on several theoretical premises. First, the agents under study are the subsidiaries of multinational corporations – these subsidiaries interact with each other inside the corporation. Second, competition and cooperation are mutually exclusive types of interactions – interactions are either competitive, cooperative, or neither.⁴⁶ Third, these interactions combine in the aggregate to form coopetition, i.e.

⁴⁵ *Agency* is here used in the sociological sense of the term and should not be confused with any notions pertaining to agency theory in management and economics literature.

⁴⁶ “Neither” here includes *relations of control*, as is often the case with headquarter-subsidiary relations; it also includes *coexistence* which also forms a particular kind of relation, at least in the Weberian sense of the term, insofar as agents take each other’s existence into account, but do not interact (Leist, 2011).

simultaneous competition and cooperation, within the corporation. Fourth, coopetition refers to a macro- or corporation-level phenomenon, which emerges from, and is partly explained by, micro-level interactions between subsidiaries.⁴⁷ Fifth, interactions between subsidiaries occur in their own unique context, and each interaction may imply its own specific set of causes (Ghoshal and Bartlett, 1990); however, one must also recognize the possibility that certain *patterns* may be found across different cases.⁴⁸ Sixth, in addition to the role of the specific micro properties of interacting subsidiaries, explanations of coopetition should also consider macro corporate structure and how changes in this structure influence the interactions between units (Ibarra, Kilduff and Tsai, 2005).

Relatively little theory exists to explain the intra-organizational occurrence of competition and cooperation between subsidiaries in multinational corporations. Although scholars such as Mintzberg (1991), Teece (1992) and Hill, Hitt and Hoskinsson (1992) have taken interest in the presence of simultaneous competition and cooperation within the firm, only Tsai (2002) and Luo (2005) have explicitly studied inter-subsidiary relations with the concept of coopetition in mind. My research contributes to this limited literature by suggesting a systematic understanding of the various mechanisms that shape competition and cooperation between subsidiaries. The following sections accordingly aim to pinpoint the factors that drive competition and cooperation within the firm; this is achieved through an iterative process that focuses on theoretical insights from secondary literature as well as first-hand qualitative data.

⁴⁷ Accordingly, it makes no sense to say that a specific interaction is “coopetitive” if we consider that coopetition is merely an addition of competitive and cooperative interactions.

⁴⁸ While the interactions between subsidiaries may be described in terms of some kind of macro “pattern” or “equilibrium,” this macro-level characterization ultimately presupposes an aggregation of individually specific micro-level competitive processes. This follows from the principle of supervenience or “multiple realizations,” according to which the lower-level properties of a system determine its higher level properties, although higher-level properties are not *reducible* to any specific set of lower-level properties. Accordingly, coopetition at the corporate level can in fact be realized through a multitude of different micro-level interactions.

Factors and underlying mechanisms

Given the limited literature on inter-subsidary coopetition, practically no publication has so far attempted to study the emergence of simultaneous competition and cooperation between units. My research fills this gap by performing a theoretical review and qualitative causal analysis. Its goal is to identify factors and mechanisms. *Factors* help make sense of competitive and cooperative interactions by regrouping their triggering conditions within distinct categories, each with its own underlying rationale, while *mechanisms* refer to “recurrent processes linking specified initial conditions and a specific outcome,” which allow us to “state how, by what intermediate steps,” an underlying causal process leads to an observed outcome (Mayntz, 2004: 241). In the case of this study, the outcome (e.g. observed competition between subsidiaries) is generally known, while *initial conditions* are not, hence making them the central focus of our inquiry.

Although few scholars have studied the factors explaining intra-organizational coopetition, many have written separately about either competition or cooperation. The present section reviews these secondary sources and other relevant literature. The purpose of this review is to screen the literature for insights about factors and mechanisms that could help us understand the broader systemic reasons for the occurrence or non-occurrence of competition and cooperation within the multinational corporation (Sutton and Saw, 1995). The ensuing suggestions of factors were inspired by various strands of research, including that of inter-unit competition, inter-unit cooperation, as well as that of headquarter-subsidiary coordination mechanisms (e.g. Martinez and Jarillo, 1989). Each strand brings its share of insights on the broader dynamics of the internal corporate network, allowing us to achieve a better understanding of the factors that affect inter-unit coopetition.

Factors affecting inter-unit competition

(1) *Restriction of resources*. It is perhaps easier for managers to locate potential sources of competition by first identifying the resources for which units may end up striving, even

though such resources do not necessarily constitute the only factor that affects competition.⁴⁹ When agents are faced with rare and desirable resources that they cannot share, a process ensues where each strives to obtain them. Without an exclusive resource to strive for, there would be no competition in the first place. Headquarters have the distinctive ability to create institutional barriers that constrain the access to resources. These barriers give rise to competitive processes where “winners” are often selected for further resource allocation.

Resources can be categorized according to their extra-corporate and intra-corporate origin. It is already a well-known fact that corporations possess a limited amount of financial resources, and as such only the units that appear to be the most promising receive additional investment, something which may already contribute to develop competition between units (Williamson, 1975). Several firms thus rely on financial allocation processes that allow units to competitively sell their projects (Bouquet and Birkinshaw, 2008; Gammelgaard, 2009).

Yet units could also be expected to compete for other non-financial resources, such as human, physical and social capital. When the quantity or access to highly valued resources is restrained, the probability of competition increases. In fact, “various studies [Eccles, 1985; Hennart, 1993; Halal, 1994] have examined this internal competition for resources, typically with a view to incorporating some of the attributes of market-based governance, such as high-powered incentives, within the boundaries of the organization.” (Birkinshaw and Lingblad, 2005: 675). This has led to a literature on the design of organizational structures to coordinate the access to, and exchange of, resources (Eccles, 1985).

In addition, Birkinshaw and Lingblad (2005) recently launched a stream of literature focusing on competition for corporate charters. Units that have similar capabilities may end up competing for the official mandate to exploit next-generation technologies. Headquarters

⁴⁹ “What drives and influences competition between units?” should not be confused with “what do units compete for?” The former question seeks to give a causal explanation for the units’ behaviour, while the latter is essentially concerned with the nature of the exclusive outcomes which units strive to obtain. Identifying the various factors affecting competition might be useful to understand variations in agents’ behavior toward each other, but the fact remains that units generally compete *for* something; in other words, one could plausibly assume that most competition and cooperation processes are outcome-oriented (Leist, 2011).

may thus end up acting as an arbitrator in what becomes a process of internal selection. In 2005, Steve Jobs allegedly pitched Apple's Macintosh and iPod units against each other in an internal competition to develop the next iPhone. The Macintosh unit won, and its manager, Scott Forstall, became the SVP of iOS software. Despite such well-known examples, "academic literature offers only limited insight into the phenomenon of intra-firm competition, perhaps because the creation of duplicate activities within the boundaries of the firm is seen as antithetical to the traditional logic of resource allocation in organizations." (Birkinshaw and Lingblad, 2005: 674)

Meanwhile, units can also potentially compete for extra-corporate resources. The most notorious case is that of cannibalization, when units compete for the same product markets. However, it should be recognized "that competition at the product market level is *not* necessarily indicative of competition at the intra-organizational level." For example, it would be quite possible for "a single unit in Procter & Gamble to offer an array of competing and cannibalizing products that it managed behind the scenes in a purely collaborative manner." (Birkinshaw and Lingblad, 2005: 675)

(2) *Unit autonomy*. The autonomy of units can be seen as having two components, namely the bargaining power and the discretion in decision-making that units possess (Mudambi and Navarra, 2004). In the context of the internal corporate network, business units are autonomous insofar as they are able to pursue their own narrow interests through spontaneous and entrepreneurial initiatives (Birkinshaw and Fry, 1998; Taggart and Hood, 1999). Conversely, one could also see autonomy as being defined by the absence of domination by an external authority. This implies that the factors that affect a unit's autonomy are precisely those that seek to reduce or control its decision-making. This includes, for example, transferring responsibility and authority upwards through centralization, and integrating subsidiaries' functional processes into separate corporate departments.

While previous authors such as Chandy and Tellis (1998) wrote of autonomy and competition as two distinct elements that constitute internal markets, it is here argued that

the two are intimately linked. Increased autonomy, i.e. the removal of formal constraints on subsidiary action, creates structural opportunities for independent decision-making, thereby increasing the probability that units contend for resources that others are also vying to control. Units may thus “intentionally or unintentionally target product markets served by other businesses within the same organization,” just as they may “simultaneously develop new technologies that are very similar to, or are substitutes of, technologies possessed by other units in the firm.” (Khoja, 2008: 13) Autonomous units would not be required to rely on centralized HR processes, and may thus engage in behaviour that is closer to that of firms operating in a competitive labor market (see Gardner, 2002).

Instances of “proactive, pushy, and sometimes Machiavellian tactics” have accordingly been observed as units seek to promote their own initiatives within the firm (Birkinshaw and Fry, 1998: 53). When a unit in Microsoft developed a new way to display text on screen called *ClearType*, other unit managers did not hesitate to block the development of the new technology, and some even aggressively bargained to gain control of the project.⁵⁰ It is plausible to suppose that such behaviour is a symptom of a deeper rivalry between units vying for corporate attention. It also indicates that units operating in entirely different activities can also potentially develop overlapping interests, which leads me to account for a third factor affecting inter-unit competition, namely the number of units.

(3) *Number of units*. Another factor that is likely to affect competition is the number of units that form a given intra-organizational network. Increasing the number of units equally increases the probability that *some* units will end up having overlapping interests for exclusive resources. Theories of ecological competition argue that in an environment which has a limited carrying capacity, i.e. a context of limited resources, “the intensity of competition depends on the number of actors in the competing population.” (Hannan and Carroll, 1991: 30) It has also been noted by evolutionary psychologists that an individual’s capacity to form

⁵⁰ Brass, Dick (2010). “Microsoft’s Creative Destruction”, *The New York Times*. February 4, 2010. http://www.nytimes.com/2010/02/04/opinion/04brass.html?pagewanted=all&_r=0

significant committed relationships is generally limited to about 150 people (Hill and Dunbar, 2003). In this sense, “network structure affects cognitions” just as much as “cognition affects network structure.” (Ibarra, Kilduff and Tsai, 2005) Both ecological dynamics and cognitive limitations suggest that as the number of units increases beyond a certain threshold, so does the probability of political behaviour and internal dissension.

There are five mechanisms by which headquarters directly affect the number of units within the firm: the (1) *acquisition* or (2) *creation* of new units, the (3) *split-up* of existing units into new ones, and the (4) *merger* or (5) *divestment* of existing units (Brickley and Van Drunen, 1990). Although they may have other strategic functions, these mechanisms also directly regulate competition by creating more units in a given business activity or terminating units that engage in otherwise unwanted rivalry.⁵¹ In some instances, they are conscientiously used to regulate a specific process of rivalry, sometimes involving only a few units. For example, Birkinshaw (2001) details how two rival units at Ericsson coexisted for ten years before being merged to generate cost savings in a maturing industry, and how a telephone insurance unit at Skandia was created and deliberately kept separate to stay in competition with the mainstream business.

(4) *Individual incentives*. Financial incentives may be used to intensify a competitive setting, either by increasing the rewards of units who obtain the resources for which all are striving, or by increasing the losses of those who do not obtain them (Williamson, 1975; Vickers, 1995). Social psychologists have suggested that competition is more likely to be intense among the leading contenders of a competitive contest, just as it is more likely to be intense among the ‘last’ in a contest where the loser is penalized (Garcia, Tor and Gonzalez, 2006). Inter-unit competition could thus “be enhanced by unit-designed incentive systems that reward individual business units using traditional formula-based performance metrics.” (Khoja, 2008: 13)

⁵¹ Birkinshaw argues that executives facing a competitive process between units may decide to either “allow competition to continue for the moment” or “merge the competing options, or close all but one down” (Birkinshaw, 2001: 26).

Factors affecting inter-unit cooperation

As I detailed earlier, two conditions are necessary for an interaction to be categorized as cooperation: agents must (1) share a common goal and (2) share a common execution plan. Sharing a common goal is thus a necessary, though not sufficient, condition for cooperation to take place. While agents may both desire to achieve the same thing, this does not imply that they plan to achieve it *together*. Common goals nonetheless remain a determining prerequisite of cooperation: without it, there would be no cooperation in the first place. It seems plausible to affirm that agents must *first* acquire a common goal (building a pyramid) for them to develop a common execution plan (dividing tasks among themselves). In the context of the multinational corporation, common goals have been described as minimizing the “divergent interests” of units and enhancing “their sense of mutual interdependence” (Nohria and Ghoshal, 1994: 493), thereby creating an environment conducive to cooperation. The following section asks: how, then, can unit interests be aligned so that they share common goals,⁵² in order to allow inter-unit cooperation to emerge? I next suggest a number of factors inspired by existing literature to answer this question.

(1) *Formal collective goals*. A first answer to the problem of inter-unit cooperation comes from bounded rationality and systems theory. Organizations are generally characterized by the fact that there is more interaction between agents belonging to a same group than between agents belonging to different groups (Simon, 1962). A reason for this could be that formal hierarchical structure allows agents to extend their limited cognitive abilities by dividing organizational problems into smaller and more manageable sub-problems (March and Simon, 1958). Entities such as divisions, product groups, and other forms of groups do not merely “categorize” units. They are linked to formal directives, to which all members of the group are held accountable, and which “detail how departments and groups must function.” (Smith *et al*, 1995: 10) These directives provide grouped units with a formal collective goal, and

⁵² Nohria and Ghoshal (1994) are essentially interested in whether common goals facilitate headquarter-subsidiary control. The present study takes its interest in whether common goals facilitate subsidiary-subsidiary cooperation.

“may actually have a positive effect” on inter-unit cooperation when they “clarify and support relationships between business units,” (Willem, Buelens and Scarborough, 2006: 554) as they allow managers belonging to a same group to develop a shared vision around common objectives. Yet they hardly seem to be the only factor behind the emergence of cooperation, as can be witnessed by the fact that “individuals within organizations rarely have a common understanding of goals.” (Ouchi, 1980: 129) This has led scholars to suggest a number of alternative factors to formal directives.

(2) *Lateral channels*. From a strategic point of view, it may not always be desirable for headquarters to continuously and directly intervene by means of hierarchical authority in the interactions of units, as this may require heavy and costly structures of control (Williamson, 1975). One way for headquarters to avoid such costs is to create structures that facilitate lateral relations. Lateral relations allow managers to solve problems “at their own level [...] instead of referring a problem upwards in the hierarchy.” (Galbraith, 1973: 46) Such lateral processes must be distinguished from self-contained groups. While departments, divisions and product groups do create shared directives, they do not necessarily facilitate the sharing of knowledge and resources in the same way that lateral processes do.

Although most corporations contain administrative structures to restrain and control subsidiary behaviour, such structures do not necessarily dictate how units are to behave toward each other when opportunities for cooperation arise. Yet it has been noted that “uncertainties are not completely controlled by the creation of formal [structures], and networks of interaction not entirely under formal control can often guide organizational action.” (Stevenson, 1986: 6) In the absence of formal structures defining the procedures for such contingencies, spontaneous cooperative arrangements are much more likely to result from bonds created through the personal relations and the informal channels that lateral processes permit. This does not mean that lateral processes do not rely on any formal structure. It simply means that emphasis is put on autonomous horizontal processes, rather than the top-down implementation of strategic directives. In fact, “these processes are

necessary but their use can be substantially improved by designing them into the formal organization.” (Galbraith, 1973: 112)

For inter-unit cooperation to emerge spontaneously, unit managers must be allowed to meet, befriend, and “get to know” other managers. As Kostova and Roth (2003) point out, there are many environmental barriers to communication between unit managers, such as geographic distance, cultural differences and language. Despite these limitations, headquarters can use several mechanisms to facilitate the development of “boundary-spanning” relationships (Chakravathy, 2010: 40), such as the transfer of managers (Edström and Galbraith, 1977).

(3) *Cooperative values*. Meanwhile, it has been noted that “the existence of a channel or pipeline can in itself never explain the flows it accommodates,” and that “other factors need to exist” to explain the cooperation that ensues from lateral channels (Noorderhaven and Harzing, 2009: 720). I here argue that the missing factor is to be found in the presence of *cooperative values*, as has already been suggested by some prior research seeking to link organizational values to increased cooperative interaction and productivity (Tjosvold and Tsao, 1998).

One should distinguish between two categories of structural factors affecting cooperation: ecological constraints and socialization mechanisms. The former have *behavioral* effects on agents, while the latter have *property* effects. This is because cooperation is not only about self-interested responses to external constraints, as rational choice theory postulates. There can also be a distinct but parallel socialization process, in which agents *internalize* communal goals, even though such goals do not necessarily reflect the narrow individual self-interest of any particular agent (Leist, 2011: 28). Such internalized communal goals are reflected in the corporation’s organizational culture.

The internal culture of the firm provides the behaviour-restraining values that allow it to avoid collective actions problems (Heath, 2007) and has been described as an alternative mechanism to formal structure that allows subsidiary interests to be aligned with those of headquarters (Nohria and Ghoshal, 1994). These values form the basis for ethical behaviour,

which some authors have referred to as the *ethos* of the firm (Hill, Hitt and Hoskinsson, 1992).⁵³ George W. Buckley, CEO of 3M, testified to the importance of cooperative values when he declared that “sharing your ideas is celebrated at 3M [...] Giant egos are not welcome at 3M and they generally don’t survive in our company. We value modesty, honesty, and industriousness in our people. We value individual creativity, but we value team work equally.” (Chakravarthy, 2010: 38) While it can be difficult for corporate headquarters to change a local culture because of positive reinforcement effects (Ghoshal and Moran, 1996; Falk and Kosfeld, 2006), there are nonetheless a few socialization mechanisms which executives may use to reinforce cooperative values, such as the “selection, training, and rotation of managers.” (Nohria and Ghoshal, 1994)

(4) *Group incentives*. Incentives could also be used to strengthen a cooperative setting by increasing the rewards of unit managers who achieve communal goals through cooperation, or by increasing the penalties for those who do not cooperate. Scholars who previously questioned the link between incentives and cooperation, such as Martin and Eisenhardt (2011), found no evidence that formal, firm-wide incentives have any effect on whether business unit members pursue cross-BU collaborations, and instead suggest that “GMs are primarily motivated to collaborate when doing so furthers their own units’ interests.” (Martin and Eisenhardt, 2011: 293) However, such conclusions should be taken with a grain of salt. Existing incentive systems are often designed to encourage individual performance. Yet studies have shown that high cooperation is generally associated with weak individual incentives (Kosfeld and von Siemens, 2007). Giving more importance to individual rather than group performance may actually pitch unit managers against each other rather than promote inter-unit cooperation. It is therefore not surprising that studies of existing incentive systems concluded that they have no effect on cooperation. The effectiveness of incentives depends on the way they are designed; this has already been indicated by studies on collective performance incentives in the public sector (Ratto, Tomino and Vergé, 2012). Some, such

⁵³ The term has its origin in the Greek concept ἦθος, which refers to a “pattern of behaviour, or character,” insofar as it discloses bonds with other actors in a group.

as Gupta and Govindarajan (1986), have also argued that incentives should be contingent on resource sharing with other business units. Yet one could imagine that there are various alternatives to reward group performance and the achievement of collective goals in order to increase inter-unit cooperation.

The factors outlined above are summarized in Table 7, which also mentions examples of how these factors are triggered by various underlying mechanisms (the list is not exhaustive).

Factors	Examples of underlying mechanisms	References
<i>Affecting inter-unit competition</i>		
Resource restriction	Selective financial allocation, selective charter attribution, transfer pricing and bargaining	Williamson (1975); Eccles (1985); Gardner (2002); Birkinshaw and Lingblad (2005); Bouquet and Birkinshaw (2008)
Autonomy	Centralization of decision-making, integration of functional services, direct supervision	Birkinshaw and Fry (1998); Taggart and Hood (1999); Khoja (2008)
Number of units	Intra-corporate ventures, acquisitions, split-up, merger, divestment of subsidiaries	Hannan and Carroll (1991); Hill and Dunbar (2003); Brickley and Van Drunen (1990); Birkinshaw (2001)
Individual incentives	Variable bonuses based on subsidiary performance measures (ROI, cost controls, deliveries, etc.)	Williamson (1975); Vickers (1995), Garcia, Tor and Gonzalez (2006); Khoja (2008)
<i>Affecting inter-unit cooperation</i>		
Formal collective goals	Top-down directives to jointly work out solutions to a problem, creation of groups and divisions with overarching goals	Simon (1962); March and Simon (1958); Smith <i>et al</i> (1995)
Lateral channels	Meetings, conferences, trips, task forces, communication channels, collaborative programs and infrastructure	Galbraith (1973); Stevenson (1986); Chakravarthy (2010)
Cooperative values	Promotion of corporate values, training programs, transfer of managers, expat programs	Noorderhaven and Harzing (2009); Nohria and Ghoshal (1994); Hill, Hitt and Hoskinsson (1992)
Group incentives	Divisional performance-based incentives, incentives for resource sharing	Ratto, Tomino and Vergé (2012); Gupta and Govindarajan (1986)

Table 7. Summary of identified factors

METHODOLOGY

Research design

Qualitative inquiry is a reasonable beginning point of research in situations “where little work has been done, few definitive hypotheses exist and little is known about the nature of the phenomenon.” (Patton, 2003: 193) A qualitative case study was accordingly deemed the most appropriate method of inquiry. Case studies are particularly suited to generate generalizable theory. George and Bennett (2005) identify four notable advantages of case methods: “their potential for achieving high conceptual validity; their strong procedures for fostering new hypotheses; their value as a useful means to closely examine the hypothesized role of causal mechanisms in the context of individual cases; and their capacity for addressing causal complexity.” Meanwhile, opting for a case study implies a number of trade-offs and limitations. Trade-offs include “the problem of case selection; the trade-off between parsimony and richness; and the related tension between achieving high internal validity and good historical explanations of particular cases versus making generalizations that apply to broad populations,” while inherent limitations include “a relative inability to render judgements on the frequency or representativeness of particular cases and a weak capability for estimating the average ‘causal effect’ of variables for a sample.” (George and Benett, 2005: 22) Remaining conscious of these trade-offs and limitations is crucial to achieving an appreciable qualitative study.

The purpose of this paper is to formulate causal explanations that achieve a certain compromise between contextual specificity and generalizability. Statements of factors (trigger elements) and mechanisms (causal processes) must accordingly be understood as *contingent and limited generalizations* that may at any time be falsified by analytical or empirical arguments as social context changes. There are many reasons for incorporating the notion of mechanisms in the research. Mechanisms are well suited to address the probabilistic and contingent nature of social life (Anderson *et al*, 2006); being typical of middle-range theory,

mechanisms also help avoid “the high abstractions found in social systems theory [that] defy falsification.” (Weick, 1974: 357) The next section provides additional detail regarding the selection of cases.

Delimitation and selection of cases

The cases to which the study refers are multinational corporations, in which the interactions between subsidiaries are analyzed. The purpose of the case study is to identify and explain a number of potential factors affecting the emergence of competition and cooperation in these interactions. However, it does not aim to measure the precise effect and relative importance of these factors, nor does it confirm the extent to which these factors may be generalized to a broader population. Thus, while cases were selected to provide variety in data, the research does not aim for exhaustive results that capture all possible variations. Cases were instead selected according to a rationale of theoretical sampling, that is, for being “particularly suitable for illuminating and extending relationships” among causal constructs. (Eisenhardt and Graebner, 2007: 27)

Several working hypotheses guided the choice of firms in which interviews were held. The first stipulates that competition *and* cooperation between units will likely be more important in large knowledge-intensive industries, as these are more likely to contain duplications of subsidiary activities (Birkinshaw, 2001; Birkinshaw and Lingblad, 2005; Khoja, 2008) while they are also more likely to be dependent on opportunities for cooperation (Grant, 1996; Martin and Eisenhardt, 2011). The second postulates that levels of internal cooperation and competition depend on whether the multinational corporation has diversified into related or unrelated industries (Hill, Hitt and Hoskinsson, 1992).

Selected firms were accordingly required to: (1) have a substantial number of subsidiaries; (2) belong to different industries; (3) have different levels of diversification in their acquisitions; (4) have different levels of technological and knowledge intensity. Candidates were found and contacted by searching and browsing industry repertoires, networking websites, and were in some cases introduced through the researcher’s personal contacts. The

first round of interviews was performed in a highly centralized manufacturing firm with few acquisitions outside its core door manufacturing business and low R&D expenditure (less than 1% of revenues). The second was performed in a major software firm with a large variety of services and products, as well as high R&D expenditure (14% of revenues).

Data collection

Data was collected through in-depth interviews and documentary research. Interviews were performed at two different managerial levels: that of headquarter executives and that of subsidiary general managers. In addition, interviews were also held in different industries: the first round of interviews were performed in a multinational manufacturing firm, which I will call Company A, while the second round of interviews were performed in a firm that mainly concentrates on information technology services, denominated as Company B. This ensured that information was obtained from different intra-organizational sources and industrial contexts. For both companies, interviews were made at the level of subsidiary managers and headquarter executives, as illustrated in Figure 6.

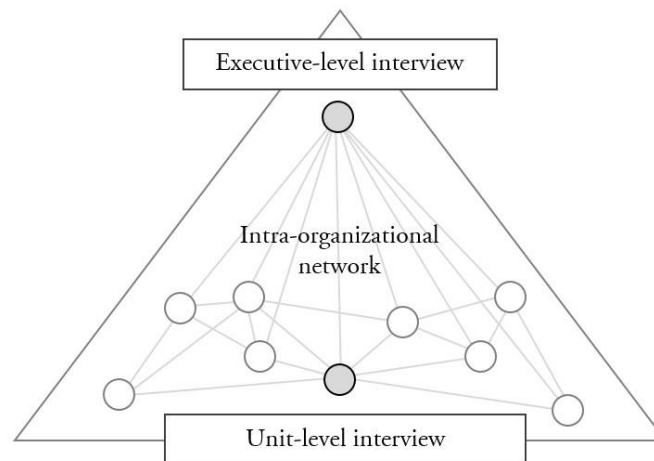


Figure 6. Structure of interviews

Interviews were generally performed in person, although one was performed on telephone. Upon accepting the interview, preliminary documentary research was performed to obtain as much information as possible on the candidate's background, his current situation within the

firm, and whether any recent events within the firm were of interest to the research. Official corporate documents and public registries were examined to acquire further information about economic context, industry structure, organizational design, lists of legally registered subsidiaries, as well as the relative importance and market share of different product types.

The collection process relied on two different interview guides, one for corporate executives and one for business unit GMs. The conceptual framework and a list of exclusive and/or shared resources were used to construct the interview guides and provide a focus to the discussion. These included, among others, corporate financial capital, product development mandates, headquarter attention, privileged relationships with internal and external actors, facilities and machinery, as well as access to valued competences and expertise. The primary purpose of these in-depth discussions was to acquire better factual knowledge of the corporate context, as well as to achieve a deeper understanding of managerial beliefs and practices, with questions formulated so as to obtain as much information as possible on the candidate's knowledge of inter-subsidiary relations.

The same set of core questions were consistently asked to each of the two types of interviewees. Interview questions were formulated according to the following structure: (1) interviewee's background and role; (2) context clarification about the firm and its organization; (3) factors affecting inter-unit cooperation; (4) factors affecting inter-unit competition; and (5) case-specific probes prepared through anterior documental research. For instance, when a first interview was performed with a subsidiary GM in Company A, it was discovered that the corporate headquarters had recently acquired a firm which had long been considered as the subsidiary's main competitor. Additional case questions were thus prepared to see whether any useful information related to this specific event could be obtained. As the interviews were semi-structured, some questions were also improvised when potential

information-rich episodes of the interviewee's history were identified in real time.⁵⁴ Interviews were held in both English and French.⁵⁵

There are inherent risks and limitations to interviews, as they can be strongly influenced by the relationship that develops between researcher and respondent. On the one hand, there is a risk that the interviewer will impose his own framework on the interviewee rather than aiming for "empathetic understanding." (Marschan-Piekkari and Welch, 2004: 12) This risk was minimized, as far as such a thing is possible, by respecting a given interview structure and adopting an attitude which remained empathetic of the interviewee's perspective. On the other hand, there is also a risk that the information provided is simply "retrospective sense-making by image-conscious informants." (Eisenhardt and Graebner, 2007: 28) The risk that such a bias posed to the research was minimized through the comparison of information provided by different sources, the identification of contradictory or incoherent statements, as well as follow-ups with interviewed managers.

Analysis

The collection and analysis of data followed a cyclical or iterative process, involving back-and-forth focus on data and theory. My research follows Weick's (1989: 518) argument that the different research phases of reviewing literature, deducing testable propositions from existing theory, and inducing theory from an empirical base, all tend to happen concurrently rather than sequentially. To state otherwise in the case of this study would be dishonest. More importance is given to the process of formulating contextualized, falsifiable and fruitful propositions rather than following a strictly sequential research method.

The data recorded during interviews was transcribed and codified in order to better identify valuable information. This information was submitted to a process of deductive-inductive

⁵⁴ "Improvisation and adaptation are an intrinsic part of a [qualitative] research process in which you are trying to find out things you do not already know from sources you are unfamiliar with." (Wilkinson and Young, 2004: 207)

⁵⁵ Quotes from French transcripts were translated into English for the benefit of the reader.

analysis, allowing for potential patterns to be detected and tentative ideas to be formulated in light of earlier literature (Bourgeois, 1979; Miles and Huberman, 1994). The data obtained in one interview was used to refine questions in the following interview (Hennink, Hutter and Bailey, 2011: 111). This interweaving of data collection and analysis from the start allowed for the constant development and refinement of theory alongside the growing volume of data (Miles and Huberman, 1994; Ghauri, 2004).

The method espoused in my case study most notably relies on analytical procedures such as process tracing, factoring and comparative analysis. Process tracing aims to understand how the outcome in a particular situation was brought about by “working backwards from events rather than estimating the net effects of causes.” (Welch *et al.*, 2011: 749) This implies “reconstructing” a causal chain by iterating between available theory and data. In addition to reducing the bulk of data and identifying emergent patterns, an important aspect of data analysis consists of “factoring,” i.e. the grouping of codified data according to themes and categories that reflect an underlying rationale (Miles and Huberman, 1994: 256). Testimonies obtained from a variety of sources were systematically compared with each other in order to detect both commonalities and inconsistencies. Great concern was given to whether the data corroborates or disconfirms the factors identified in my theoretical framework. This intention is supported by the fact that not all factors were corroborated by the case study, which I lay forth in the following section.

CASE DESCRIPTION

Both companies have been subject to various structural reforms during the past decade. Instances of causal factors and mechanisms were therefore drawn from different historical episodes, which this descriptive section helps put into context.

Company A

Company A is a privately held multinational firm⁵⁶ with about 60 subsidiaries in 12 countries, the majority of which are located in North America and Europe. Its head office is located in the United States, although the corporation itself is registered and audited in Canada. Interviews were made with a senior vice president of corporate development, as well as three different subsidiary general managers (GMs). The company predominantly engages in large-scale manufacturing of doors for both residential and commercial markets. It describes itself as “one of the few vertically integrated door manufacturers in the world.” Its business structure is organized according to three geographic regions: North America, Europe, Asia and Africa, each of which has its own particular market characteristics.



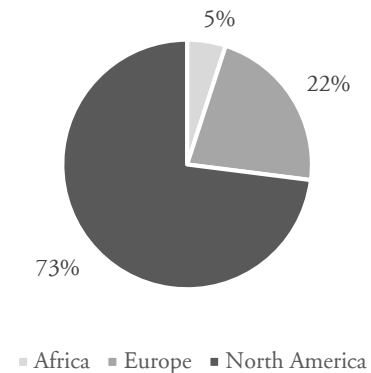
Figure 7. Geographic distribution of Company A subsidiaries

⁵⁶ Although a private company, the firm recently submitted an application to the United States SEC for a stock exchange listing, and accordingly released a number of official documents ahead of its public financial disclosure process. Much of the descriptive information in this paper was obtained from these documents.

Residential product and services constitute the largest source of revenue, accounting for 79% of sales, with the remaining 21% being commercial and architectural products, a market which the company only recently entered through major acquisitions.

Subdivisions in Europe differ from the rest in many aspects. While divisions such as “retail,” “commercial,” and so on do exist there, the market structure is much more different from that in North America, and production is much more country-specific. Some European divisions therefore operate somewhat more autonomously than the rest of the firm. For instance, pricing is centrally administered by the corporate marketing function in North America, while subsidiaries in Europe often have more autonomy in this respect.

Company A sales by region



Nearly all units are required to follow the Lean Six Sigma management doctrine. The firm is highly integrated and centralized, with a large part of decision-making being attributed to headquarters. Functions such as HR, R&D, marketing and finance all tend to be centrally administered. Headquarters impose heavy restrictions when it comes to capital expenditure requirements, budgetary compliance, and other financial and operational measures. These measures are universally controlled for across North America, and must always be justified by subsidiary managers.

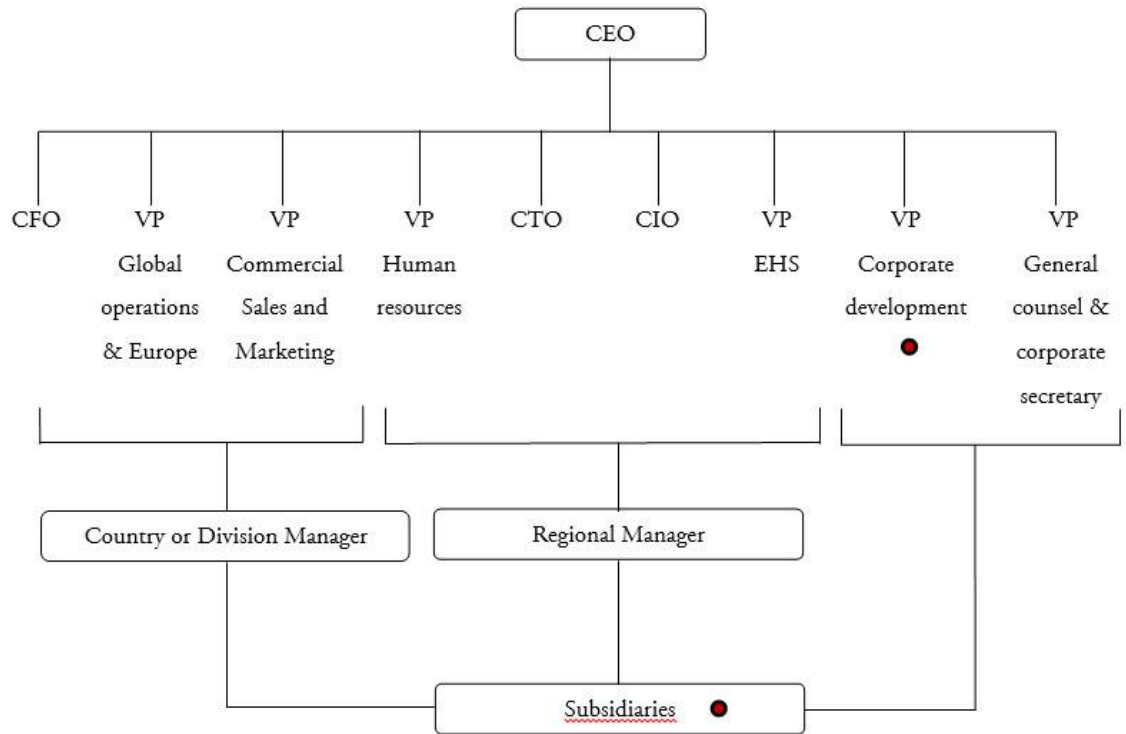


Figure 8. Company A hierarchical structure

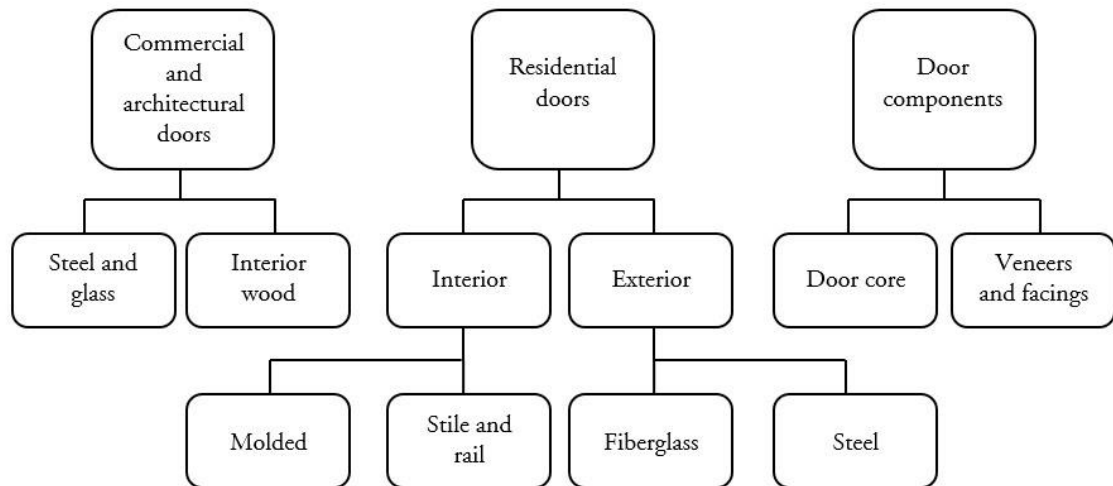


Figure 9. Company A product divisions

The company has three main divisions: one for commercial doors, one for residential doors, and another for door components (Figure 9). All corporate functions such as finance, sales,

HR, continual improvement, procurement, and health and security, tend to be integrated in the sense that GMs have no control over these centrally administered services. However, a distinction should be made between the VPs of operations, finance and sales who rely on a subset of divisional managers, while those of other corporate services usually rely on regional managers, each responsible for a specific geographic area (Figure 8). Due to the sheer size and number of units within the residential division, its divisional managers can sometimes rely on another sub-layer of regional managers.

Following a leveraged buyout from KKR in 2005 and the advent of the economic downturn in 2008, the firm went through a period of important financial restructuring. It consolidated its manufacturing and distribution operations by closing over 50 facilities between 2006 and 2012, and reduced its workforce from 15 000 down to 9 500. Capital expenditure in new projects is generally limited to a certain percentage of subsidiary sales, and headquarters now rely on payback as the central internal investment criteria. When it comes to capital equipment, payback is expected to be made within 18 months. Many of the company's structural reforms are also due to the unfavorable economic context, and for the last ten years the highest priority has been cost reduction. Both executives and investors consider that conserving cash is important.

Three different subsidiary GMs, one from each division, were interviewed in the course of this research. A first interview was performed with the GM of a subsidiary in the residential division. This subsidiary was in a peculiar situation, as one of its direct competitors was recently acquired by the company, creating an ambiguous situation where it was initially unclear how they would divide their respective markets. A second interview was performed with a newly hired GM in the commercial division, who offered a fresh perspective on how the corporation operates. A third interview was performed with a GM of the components division, who has worked in that position longer than any of the other two.

The relations between subsidiaries vary strongly from one case to another. Interviews gave signs of a corporate culture which generally values acceptance of headquarter authority, cooperation and teamwork with peers, while also valuing competitive performance. Units

were found to be cooperating in a large variety of activities. There were also episodes of competition between subsidiaries when it came to matching the performance of their peers, as well as gaining and maintaining control over production and projects.

Company B

Company B is a major publicly held software company, with 100 subsidiaries in 31 countries. Its headquarters are located in Canada. Interviews were held with a Vice-President of Corporate Development, a Vice-President of R&D, and a subsidiary General Manager.⁵⁷



Figure 10. Geographic distribution of Company B subsidiaries

The Company was approached at a time of important reforms and changes, which had important implications for inter-subsidiary relations. While it had previously been organized according to a matrix structure, the arrival of a new CEO prompted a shift in the company's strategic focus, and a reorientation towards "more of a pure functional organization" (see Figure 13).

As many acquisitions were made in unrelated businesses, executives noticed that it became "very hard for [new acquisitions] to fully understand who the Company was, and why their acquisition was relevant." While the previous strategy centered the firm's activities on

⁵⁷ Interestingly, one of the VPs used to be a business unit GM until recently.

Enterprise Content Management (ECM), the new strategy broadened the firm's market by realigning its strategy towards being a leader in the broader field of Enterprise Information Management (EIM). This was done with the goal of including recent acquisitions into a coherent strategic vision, and allowing the company to grow further by enlarging its addressable market (approximately 5 to 13 billion dollars in market size), since EIM encompasses many more activities than ECM. The company accordingly aimed to expand from one billion to three billion in revenue. Five new product categories were made to cover the firm's activities in EIM: (1) Enterprise Content Management (ECM), (2) Business Process Management (BPM), (3) Web Content Management (CEM), (4) Information Exchange (iX), and (5) Discovery, whose respective markets are described in Table 8. Acquisitions which had not been included in the ECM line of business were thus able to align themselves with one of the other four divisions.

	EIM				
	ECM	BPM	CEM	iX	Discovery
Market size	4.6	2.6	1.4	3.2	1.4
Growth	7.2%	7.9%	14%	11.4%	14%

Market size in USD billions.

Table 8. Company B product divisions

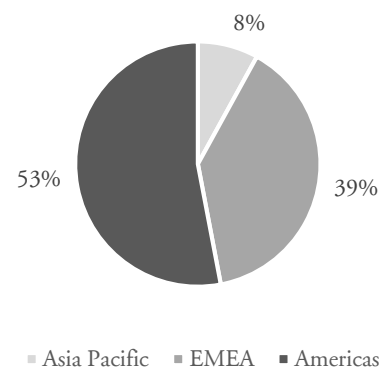


Figure 11. Company B sales by region

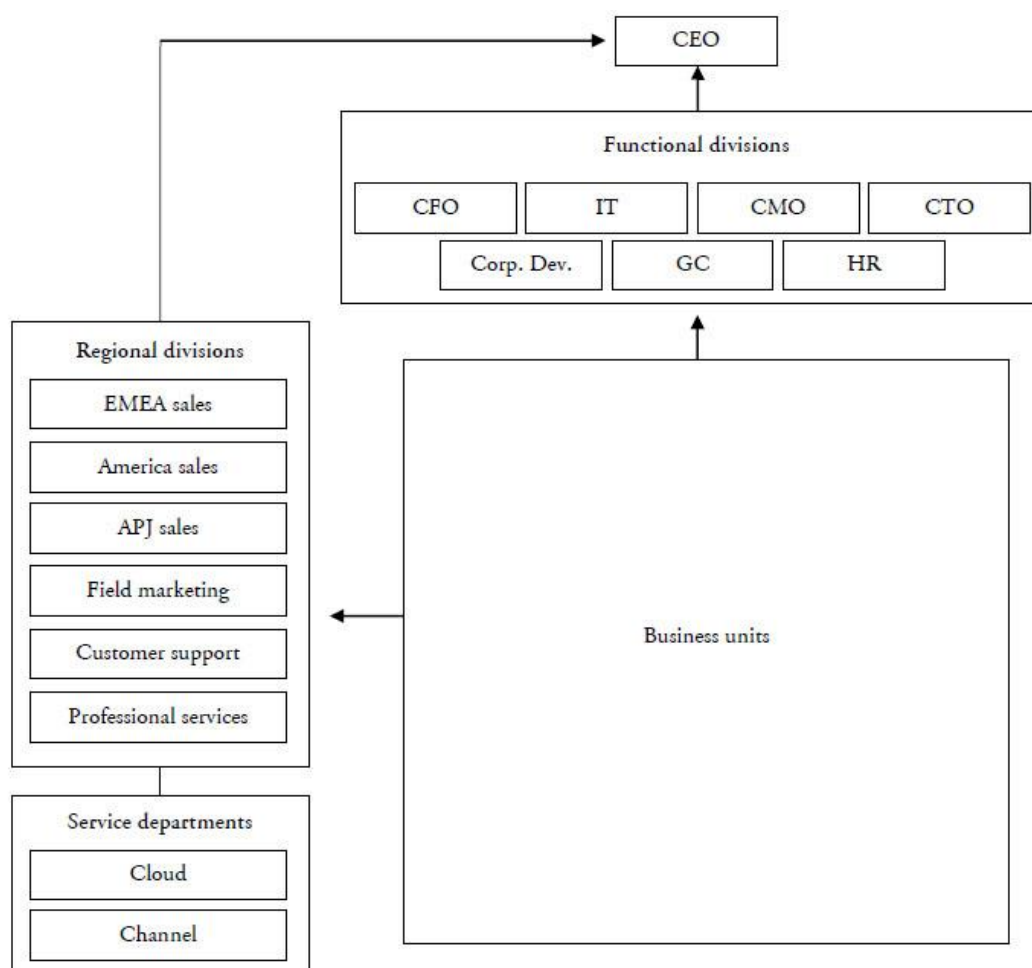


Figure 12. Company B past matrix structure
(EMEA: Europe, Middle East and Africa; APJ: Asia, Pacific and Japan)

In the previous M-Form structure, subsidiaries had varying levels of autonomy: some were almost completely independent; some had fragmented lines of responsibilities; while still others were entirely subordinated to geographic divisions, functional divisions and other service departments. The structure implied many reporting lines and relations of accountability for business units and corporate executives alike, with a total of 22 direct reports to the CEO. As one executive recounts, “accountability was really fragmented, spread out over different lines of business, regions, and business unit heads.” These lines of accountability were simplified in the company’s strategic reorganization, which reduced the number of divisions and VPs to which units are held accountable.

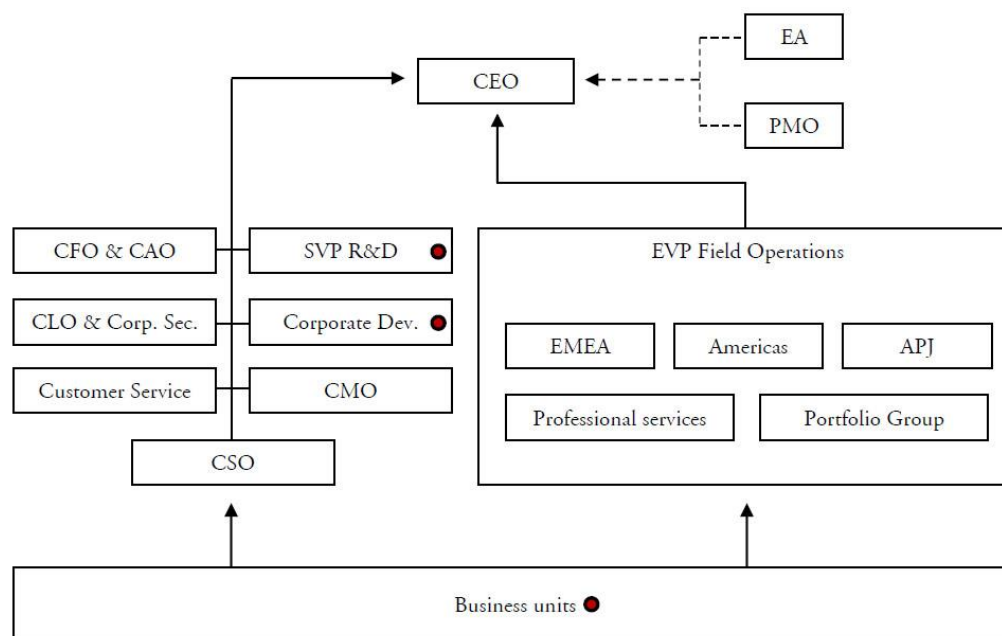


Figure 13. Company B present organizational structure
(EMEA: Europe, Middle East and Africa; APJ: Asia, Pacific and Japan.
Circles indicate position of interviewed managers.)

Several aspects which are not apparent in the above figures also distinguish the two organizational forms. The VP for R&D recounts that in the previous organizational structure, “there was no steering committee for M&A’s, there was no single functional head for all of R&D, and there certainly was no conversation with all the general managers of all the business units at the same time” over which companies ought to be acquired and what R&D projects ought to be invested in.

Meanwhile, two models of governance remain present within the firm: the enterprise model and the Portfolio Group model. Most of Company B’s units operate within the enterprise model, where they mostly focus on selling to named accounts (well-defined lists of customers organized by geographic region). These are, as an executive puts it, the “global 5000 customer names.” Meanwhile, the Portfolio Group comprises business units focusing on a different market segment, corresponding to the lower end of the market. The Portfolio Group was described by a GM as “a newly-acquired group, a parking lot that allows you to stabilize the business before [integrating] the larger organization.” Most, but not all, Portfolio units typically fall in the Information Exchange product line. The largest concentration of business

units that still operate semi-independently is now located in the Portfolio Group, whereas other units have a much clearer functional alignment. The sales organization of units operating in the Portfolio Group is thus different from the sales organization of enterprise units reporting to the head of the Americas, EMEA, or APJ (see Figure 13). Moreover, many units in the Portfolio Group still retain their own R&D resources, whereas in the rest of the Company, R&D is centralized in a single functional division. While Information Exchange is relocated to the Portfolio Group, all the other four product categories (ECM, BPM, CEM, Discovery) form subdivisions of the global R&D organization that report directly to the SVP R&D.⁵⁸ Having described these two corporate cases, the next section aims to analyze how processes of competition and cooperation unfold within both of these firms.

⁵⁸ The VP of R&D that was interviewed for this research served as the head of R&D for the Discovery product division (see Figure 13).

RESULTS

Results are presented in two parts. The first separately analyzes the data obtained in each case from a within-case standpoint. The second contains a cross-case analysis, in which results are discussed.

Within-case: Company A

The following table summarizes the factors corroborated in each interview in Company A.

Factors	GM1	GM2	GM3	HQE
<i>Affecting inter-unit competition</i>				
Resource restriction	√	√	√	√
Unit autonomy	√	√		√
Number of units	√	√	√	√
Individual incentives				
<i>Affecting inter-unit cooperation</i>				
Formal collective goals	√	√	√	
Lateral channels	√	√	√	√
Cooperative values	√	√	√	
Group incentives				

Table 9. Information identified in interview transcripts (Company A)

Factors affecting inter-unit competition

Resource restriction. The product market of each subsidiary is generally clearly delineated and separated from those of other units by headquarters; cannibalization is non-existent. GMs generally insisted that units may compete when they are being compared on their performance measures, but will not actually steal customers or resources from each other. Competition between units is only *vis-à-vis* headquarters. Units are generally compared on the basis of their weekly reports, their monthly scorecard, and their quarterly reviews with VPs. The corporate executive admitted that there must be some rivalry in this respect, not only over financial performance, but also over non-financial measures, such as lead time.

Meanwhile, a GM admitted that human resources can constitute an asset for which units are vying. His director of operations was once approached by another unit that wanted to hire him as a general manager, after which his director left. Moreover, while speaking of a direct competitor that was recently acquired, the GM acknowledged that:

[We both] fight for the same customers, but not as much as one would think. We will tend to sell to wholesalers who in turn sell to [retail chains]. They will tend to sell to door assemblers. They make a lot of 1" $\frac{3}{4}$ doors, [which] only constitute 8% of our market, while for them it's closer to 30%. [...] It doesn't bother me to let him have that. However, I will take his *Louvre* doors. (GM1)

At the time of this interview, the newly acquired unit was allowed to remain somewhat independent and keep its current markets; however, each unit was forbidden to contact or take orders from the customers of the other. Merely two months after this interview, the SVP of corporate development intervened; he reassigned each unit's target markets, causing the interviewed GM to lose 40% of his production to the newly acquired subsidiary. What he did not know until then was that the newly acquired subsidiary had repeatedly met and impressed the SVP with its business model. The SVP thus put it in charge of the "stile and rail" group, effectively making the interviewed GM a subordinate of his former competitor. This was not the outcome that the GM had expected and caused quite a strong reaction from his part.

Autonomy. Units have generally experienced a decline in autonomy over the decade preceding the interviews; both SVP and GMs testified to the fact that headquarters exercise a lot of central oversight, which seems to limit the extent of spontaneous initiatives. As the SVP of corporate development puts it,

[...] cannibalization used to be an issue five to six years ago, when the firm operated on a plant-by-plant cost approach. At that time the subsidiaries had much more independence in determining their profitability, and as such one priority was to increase sales, which could sometimes result in 'stealing' market share from another unit. The situation today is very different. Plants have no control over sales. (HQE)

In fact, units of highly integrated product divisions, such as residential doors, do not control anything other than their own production processes. It is therefore not surprising that the

instances of competitive behaviour that were identified in the firm (e.g. between old and newly acquired units) were generally linked to control over production.

Internal investment requests require subsidiaries to fill in sophisticated forms with several forecast metrics. Several GMs testified to the fact that units lost much of their autonomy after the Company went through a leveraged buyout in 2005. The firm now attributes much attention to the standardization and measurability of production processes, which in turn has left units with little room for maneuver as to how they are to run their operations.

However, some units have more autonomy than others. This is notably the case with subsidiaries of the components division, who operate very differently than the rest of the firm and whose production processes can hardly be compared with each other, as well as two newly acquired subsidiaries who were identified as “special cases” by the SVP. The GM of one of these units describes his case as:

The structure of [other units] is different from that of [our unit]. The SVP appreciated our way of operating. Usually most units have a GM and a director of operations, and then sales [and other functions] are operated by headquarters. Whereas [here], you have a director of sales and marketing. We manage everything ourselves, but remain answerable to headquarters. Most units do not have that autonomy. (GM2)

When asked about the difference that this made for their units, managers tended to respond by saying that it gave them the opportunity to take more initiatives, such as incorporating new production processes or developing a new product line.

Number of units. There have been many occasions where units were merged or split. In 2004, the interviewed GM was put in charge of a group of three subsidiaries, including his own, that were serving similar markets.

[One of them] was producing panels, while we were making French doors [...] they were no longer selling directly to the customer, as all orders were shipped to our plant. I invested approximately three million in order to close all of these plants and merge their production with ours. That suggestion did not come from headquarters. It was I who convinced them that there was no reason to keep all of these physical facilities, as we could do everything from a single plant. (GM1)

When asked about a newly acquired competitor, the GM said that:

We are too big to be merged. We do not presently have the capacity to take their production, and they do not have the capacity to take ours. It's just too big, it would be too much of a butchery. (GM1)

The economic downturn made the firm face a period of declining revenues and limited financial resources. One of the interviewed GMs testified that headquarters did not hesitate to close down entire units and divisions, explaining that there the economic downturn resulted in an overcapacity. The company thus re-evaluated each subsidiary on a geographic basis. For example, of the two plants that the company had in Virginia, one was closed as a result of a cost-reduction and downsizing strategy. The GM also noted that units have been split in two. This resulted from the Company's integration process and its attempt to implement the same standards everywhere. This integration has the important benefit that when a unit has too many orders, it can simply transfer part of its orders to another unit, although this can increase transportation costs. Creating new units and splitting production can thus have its benefits in a growing market, as was the case before the crisis.

While the number of subsidiaries declined during the economic downturn, it is now steadily increasing as the firm pursues an aggressive acquisition strategy. This has led to situations where direct competitors with conflicting interests were acquired, further leading to internal tensions as to how markets would have to be divided. For instance, in 2012, the direct competitor of a unit in the residential doors division was acquired. Following the acquisition, the GM of the acquired unit managed to impress the SVP of corporate development with its innovative business model. Its GM was put in charge of the "Stile and Rail" group, which subsequently reorganized each unit's production. The GM of the "old" unit thus suddenly found himself under the authority of his former competitor. A GM who watched the episode unfold recounts it in the following way:

[...] the deal was settled on August 4, 2012. So this little new guy that we just acquired comes in, and starting from August 4, [the old unit] was put under the authority of [the new one]. [...] The acquired unit and the SVP met the GM of [the old unit] on August 5. They informed him of what had happened. He did not take the news very well. (GM2)

As a result of the reorganization of production within the Stile and Rail group, he lost 40% of his production to the newly acquired units. This caused a sudden overcapacity for his plant

and a necessity to drastically reduce his headcount, which he narrowly avoided by finding a new major customer.

Factors affecting inter-unit cooperation

Formal collective goals. Most corporate directives in Company A constitute a form of top-down control of unit performance, rather than a promotion of collective goals that aim to guide inter-unit cooperation. However, there have been some instances in which headquarters intervened to foster more cooperation among units. Headquarters approached two subsidiaries of the components division (one Canadian, the other American) that were producing similar products, to suggest that they develop synergies. The GMs of the two units took the hint and started organizing regular meetings in order to discuss and share knowledge on how to optimize and complement each other's production. In a similar way, headquarters created a group that brought together units producing a certain type of architectural doors within the commercial division. Once its purpose was made clear by headquarters, the GMs were left free to develop new ways of developing synergies.

Lateral channels. According to the SVP, the company actively tries to move people between functions. It does invest into programs to train its personnel internally. Moreover, corporate functions such as HR and health and safety are essentially preoccupied with moving knowledge and best practices across the firm. This was confirmed by a GM, who stated that the Company is strong in this aspect. It is standard policy that best practices must be shared. If a unit has difficulties, it can bring in employees from elsewhere in order to do some coaching and show its own employees how to improve their processes. There are also many procedures and routines which help spread knowledge across units. One of these are the video conferences that brings together GMs with the head of their regional division. These meetings are designed for units to openly reveal their results and explain any difficulty or anomaly to other attending GMs, with each individual report being followed by a period of questions. These meetings typically include between six and ten participants. When it comes to best practices, all GMs testified to the fact that the imperative to share does not come from

headquarters, but rather arises through spontaneous actions between units. For example, a GM mentioned an episode where

The GM of another unit used to work in HR and was particularly skilled with health and security. So when we happened to have problems with our health and security performance, I called him to get some advice. There are two factories in Quebec where people have been with the company for a long time, and I can just call them, often simply to check how they are doing, and see if they have something to share with me. Our discussions often concern scorecards and performance indicators. (GM1)

Interviews revealed that both human, physical and social capital are shared among the different units. When newly acquired machines broke down at the production facility of a unit in Wisconsin, a Canadian GM suggested to a VP that he send over one of his own staff in order to repair and operate the defective equipment.

Cooperative values. Following the implementation of a company-wide cost-reduction strategy, there have been practically no paid trips, out-of-work meetings, or other boundary-spanning activities where unit managers get to meet in person. Despite these restraints, most managers expressed that the Company's culture is one where discussion is welcomed:

[...] people are relatively receptive... we make a lot of conference calls, I see them talk, and I can see that they are open and willing to take other people's ideas. (GM1)

The existence of strong personal bonds between unit managers seems to be somewhat dependent upon geographic proximity.

[...] it's more here in Quebec, less with the others, I would say... it's more here in Quebec that we're going to share information with each other. If the Company suddenly asks me to cut my overhead by 10%, I would definitely call one of them and ask, 'do you have any ideas about where to cut?' (GM1)

One would imagine that a way for companies to foster greater cooperative values is to promote them by communicating them regularly. This would be the purpose of the corporate blueprint, which is printed every year with the company's values, mission, and four main objectives, each of which is categorized and divided into sub-objectives. This blueprint starts out at headquarters and is handed down to subsidiary managers. When asked whether these values really worked, GMs responded positively. However, a closer look at the document

reveals that all of its stated values are formulated to promote individual rather than collective achievements (with stated values such as “customer commitment,” “continuous improvement,” and “leadership and accountability”).

More interestingly, the president gives an opportunity for floor-level employees to meet him in a video conference once every year, where they speak of group performance and subjects considered important, and where people are encouraged to ask questions. This indicates a certain degree of openness within the Company’s hierarchy.

Within-case: Company B

The following table summarizes factors corroborated in interviews in Company B.

Factors	GM1	HQE1	HQE2
<i>Affecting inter-unit competition</i>			
Resource restriction	√	√	√
Unit autonomy	√	√	√
Number of units		√	√
Individual incentives			
<i>Affecting inter-unit cooperation</i>			
Formal directives	√	√	√
Lateral channels	√	√	√
Cooperative values	√	√	√
Group incentives			

Table 10. Information identified in interview transcripts (Company B)

Again, most factors were corroborated by data, except for individual and group incentives.

Factors affecting inter-unit competition

Resource restriction. A key asset for which units frequently vie within Company B is technological and product development charters. As one VP mentions, even though there are now five product categories within the firm, “there are going to be some areas that naturally overlap.” For instance,

[...] there have been vendors building ECM solutions that over time have started to evolve into some BPM functionality. Functionally, these markets have their own dynamics and they also have to a very high degree the same set of buyers. Over time, as [units] grow, they include more [features] into their core offering that at some level might overlap with offerings in other areas.” (HQE1)

Both GM and headquarter executive interviews indicated that such incidents of product overlaps were much more frequent in the Company’s previous organizational structure. As one of the VPs puts it,

there is [now] much more focus on creating efficiencies, and part of creating efficiencies for the global R&D organization is: let's standardize [and create] one of everything, which means, in case there are two or three different types of solutions [that all address] the same problem, [that we must] over time try to phase [some of them] out and agree on which one should live on and become the *de facto* standard for the company. (HQE1)

He also points out that the aim of the company is to grow to three billion dollars in revenue, and explained that this meant that the company would end up buying firms that do exactly what it is currently doing in each of its products segments. Obviously, some decisions will necessarily have to be made concerning the overlapping technology of these newly acquired units. However, he insisted that the period of time required to converge onto a single product offer, simply because of the fact that all units are trying to keep their customers happy, is very difficult. A VP also witnessed that a business unit was given a mandate but didn't deliver to expectations:

[...] after they had a chance to prove themselves and things didn't quite realize the way the management executive team had envisaged it, another group was given a similar mandate. (HQE1)

Mandates and business charters thus constitute, in many ways, a valuable "institutional" resource whose "property rights" are limited and attributed by headquarters. A particular example concerns social collaboration software products, which allows people in client firms to work together, share files, and communicate with each other. In the previous organizational structure, there were in fact several units that had developed their own social collaboration software.

A decision was then made [at the corporate level] that all social collaboration software functionality would be standardized on a single platform, [while] all other [units] were asked to deprecate their social collaboration roadmap. [The process was a forced one, as] no decision gets made because people want to give up their product. It was a top-down decision and that's the only way it works. (HQE1)

The multiplication of similar product technologies increases the perceived pressure on headquarters to attribute charters and exclusive responsibilities. A VP recounted that the company acquired a unit that provided a mobile phone platform that the company wanted to use as a standard on which every unit would build their mobile application. This, however,

was more easily said than done, as the Company ran into several problems, such as incompatible coding and lack of expertise about the new standard, which created many difficulties for units that had to adopt it. The net result was that the new directive did not deliver to expectations, and business development remained *ad hoc*, based on each unit's independent product innovations. The company eventually solved this problem by creating a global R&D organization that centralized all decision-making regarding user experience under a single roof.

The control over key staff also constitutes a potential factor explaining competition. As a GM explained,

Being part of a bigger company has definitely opened a lot more doors for employees [...] Today we haven't had anyone move. Not that there's any structure that says [they] can't, it's just that it hasn't happened. I think we're lucky because [our unit] is a strong group. I think that if you're in another type of company, I can easily see some people wanting to transition which could cause problems for the business unit. (GM1)

This indicates that the level personnel mobility seems to vary strongly from one unit to another, and gives additional credibility to contingent views of subsidiary relations.

Autonomy. The autonomy of Company B's units varies greatly. Newly integrated units which are in a state of transition in their integration process will tend to have more autonomy than others. Variations in autonomy will depend on functional areas. Some functional areas, such as HR, have always been centrally administered, both in the previous and current organization. Finance also tends to be an area in which headquarters have much control over units, starting from the moment of their acquisition with monthly and quarterly Executive Leadership Team (ELT) meetings. The GM of a recently acquired subsidiary maintained that much of his autonomy was a by-product of his financial performance, claiming that he was only accountable for his profit and loss statement. Besides from certain standardized HR and finance practices, he claims never having been told what to do.

I believe that because we were a profitable [unit] when we were acquired, and continued to be profitable, that's one of the reasons why we were... not left alone, but given a lot of autonomy [...] the Company has done a lot of acquisitions, and I think that as a company we've learned what works and what doesn't. Sometimes it's just... don't over-roll everyone with a standardized process." (GM1)

Unsurprisingly, the GM's unit belongs to the Portfolio Group, which was described by a VP as having the largest concentration of business units that still operate semi-independently. The VP expected that many changes would eventually happen in the Portfolio Group, because of its heterogeneity and the fact that it has not necessarily figured out the best way to organize itself.

Number of units. A strategic goal for the company is to achieve the three billion dollar revenue cap, in addition to becoming the number one or two player in each of its product group segments. It accordingly has an aggressive acquisition strategy. One of the interviewed VPs stated that

Previously, more acquisitions were done randomly because of these grassroots bottom-up type requests, and less were done top-down because they were aligned with strategy, for the very simple reason that our strategy wasn't as articulated as it is today [...] in the past, things were less structured. The process was less clearly defined, and it was usually a combination of one or two of our senior leadership feeling that they had to drive a particular transaction opportunistically. Now it's much more aligned with strategy and number one goal is market share. (HQE1)

Aside from the fact that they increase the number of units, acquisitions seem to play a particularly important role in determining intra-organizational competition, for the simple reason that acquired units often happen to be former competitors of existing subsidiaries. Competitive interactions which used to take place in external product markets thus suddenly happen within corporate boundaries. As increasing market share is one of Company B's top strategic objectives, many of its acquisitions were made with market share in mind; in fact, one executive claimed that:

[...] if the CEO proposes something it most likely is because he feels, regardless of what technology you're using, regardless of overlapping customers, if you buy the [third largest company] in an industry and you combine that with the market share you already have, you're going to become [the second largest.] That's the kind of acquisition that a CEO would tell us to start looking at and initiate conversations with. (HQE1)

The avoidance of cannibalism and technology overlap can sometimes be trumped by other strategic imperatives, in this case the need to increase market share. The integration process that usually follows acquisitions gradually eliminates unwanted forms of competition, sometimes to the detriment of certain units' interests.

Factors affecting inter-unit cooperation

Formal collective goals. The departmentalization and grouping of units under clear areas of responsibility seems to greatly facilitate inter-unit cooperation. According to a GM,

[...] when we were acquired [in the former organizational structure], we had a bunch of independently operating businesses. Some of them were in the ECM space, but many of them had nothing to do with ECM. We've seen the corporate strategic vision go from ECM to EIM. The five [new product divisions] that you have [within EIM define] five groups inside the organization [...] That means that I can relate to people that are in my group a lot more easily, because I have a roadmap that lays it out, whereas [in the former organization] a lot of people didn't fit. (HQE1)

A former GM similarly explained that, after being acquired by the company, it was very hard for people in his subsidiary to fully understand how the corporation functioned and why their acquisition was relevant. Many people departed

[...] it was very hard for us as a new [subsidiary] [...] to fully understand who [the company] was, why our acquisition was relevant. [...] We saw a lot of departures [...] both at the managerial level as well as the individual contributor level, which caused concern that the unit might be close to imploding. (GM1)

However, with the arrival of a new CEO and a realignment of units according to product groups, things started getting better.

One of the changes that happened with the new organizational structure was that, rather than to create these fragmented sales organizations that were poorly aligned and had little incentive to work with each other, [was that there was now] a single organizing head to all field operations. (GM1)

The VP went on to add, having a globally consistent structure helps maintaining “effectiveness and efficiency, scalability, extensibility, and accountability” within the organization. It is very difficult for headquarters and units to all have twenty conversations at the same time and make decisions that make sense. Units need clear directions, collective goals and procedures that reduce ambiguity and allow them to work efficiently together. A GM clearly testified to the fact that by being allowed to relate to a larger group, units are better able to relate to each other within that group.

Lateral channels. The subsidiary GM that was interviewed in Company B was part of the Portfolio Group, which he described as being very diverse. Units of the Portfolio Group most often serve very different markets, with different sets of products, services, and subsidiary sizes. Hence, when a unit within the Portfolio Group asks for help, it will most likely receive a different perspective on its problem. There have been many occasions in which units discussed the possibility of cooperating:

I had a couple of situations where I thought, hey, amazing what you could do if you take your stuff, combine it with our stuff, package it together, and go there. But then, the first question that arises is: how does revenue get measured? Who's going to sell this? My sales force, their sales force? Is this a new quarter or the existing quarter? All these considerations just make it more complex, and [in the end the decision is made *not* to] go there, because it's too complicated. (HQE1)

The GM also illustrated an episode of cooperation with another unit:

Because you have a lot of autonomy, it's a negotiation. I negotiated the ability to present my product through their sales team, in exchange for my R&D team doing some work for them. It was a bargain system. And both brokered something that [benefited] myself and the [other] GM. They needed access to technical resources and I needed access to their sales team. (GM1)

A VP noticed that “if you don't want your GMs to talk to each other, or you [want] to make it hard for them to have those conversations, you can” — suggesting that inter-unit cooperation in large part depends on the existence of viable communication channels. In this respect, the company was particularly adept at implementing its own social collaboration software. The firm notably uses a social networking platform that allows managers to share information and queries with each other. As a GM describes it,

[...] there's a tremendous amount of lessons to be learned [...] in some cases it's in structured courses, in other cases you learn it by working with your colleagues [...] We have QBR meetings where all the GMs meet and talk together, then biweekly we have open meetings, where typically someone from the company will do a bit of a presentation, so it might be a new process on HR, a new development process, where they'll spend half an hour of the conference going through this new process, but they'll also give us an opportunity to talk.” (GM1)

He went on to add:

The advice I got was ‘you need to reach out,’ because if you don't reach out to other people, they're not necessarily going to help you [...] It's not so much a formal process, it's just they gave me the time to actually go there and meet those people. (GM1)

This indicates that receiving help from other units requires that GMs invest a certain amount of effort in developing their personal relations with other managers. For example, the GM had the opportunity to meet with other corporate heads, including some key R&D people. These people helped his unit by engaging in some informal mentoring, which allowed his unit to increase the efficiency of its R&D team. According to one of the VPs,

one of the advantages of being in a higher management position is, even though this is a user conference, you're expected to be there and represent your group, your functional line of business, and talk to customers, so it becomes a *de facto* gathering of employees, where you can collaborate and meet and learn from each other. (HQE1)

This was corroborated by a GM, who went to two of the Company's great shows, which he described in the following way:

Great place to socialize with other Company people. I've learned a lot just by hanging out in the lunch room. From a skill set point of view, if you don't have the ability to go out and network, you would have a hard time operating a business unit in the Company. There isn't any [pre-existing] fluid communication line. You build your own communication line. You build your own relationships, and you learn from those relationships. (GM1)

Cooperative values. When asked about the importance of culture, an executive of Company B, being of foreign nationality, answered that he found his firm's culture to be

[...] very Canadian [...] Even though we now have an American CEO that has implemented a lot of new things that are reminiscent of [big corporate] culture, there is no doubt in my mind that [the Company] is strong enough to actually have this culture that transcends whatever comes in. Yes, the CEO obviously sets some change in culture in a lot of different ways, but there is still this mass of people [who have] built relationships over time [and whose] general view is: you're laid back, you don't brag too much, you're respectful, and you're open-minded. (HQE1)

This view seems to be corroborated by the GM, according to whom

Most of the people [in the Company] come from an acquisition of some sort; they all know what it's like to be the new guy. Because of that, you [can] get a lot of support from people who are quite willing to step out of their day-to-day job and provide some assistance. It's just because they've been there, they went through their own challenges, they learned from those challenges, and they're trying to help others. (GM1)

He also suggested that hierarchy does not constitute a hindrance, as he had the opportunity to meet with people on all committees one-on-one. He also met the chairman and the CEO

on several occasions. He pinpointed to the possibility that this may be something unique to his firm:

It's a cultural thing that if someone asks you to help them, you help them [...] I'm not sure every company has that culture, and that's why a lot of company acquisitions don't work. (GM1)

I next compare each of these cases and discuss their corroboration of postulated mechanisms.

Cross-case comparison and discussion

The paper's initial research question asked: *what are the factors that affect inter-unit competition?* Of the mechanisms that were inspired by, and conjectured from, the earlier literature review, six were corroborated by interview data, while two were not. Three competition-inducing factors were identified within managerial testimonies: resource restriction, unit autonomy, and number of units. Three cooperation-inducing factors were also supported by the qualitative inquiry: formal directives, lateral processes and cooperative values. A summarized comparison and discussion of the information obtained from each case follows in the sections bellow.

Corroborated factors

Resource restriction. Data from both cases indicates that episodes of competition occurred when units were faced with a situation of limited or restricted resources. On the one hand, being directly affected by an economic recession, the units of Company A competed for survival and financial performance, with many units having been closed down as a result of comparatively poor performance. This corroborates earlier literature regarding the existence of internal competition for financial capital (Williamson, 1975; Hill, Hitt and Hoskinsson, 1992). There was also evidence of managers competing for headquarter attention, which has also been conceptualized by earlier literature as a scarce resource as well as a cause for internal competition and selection (Bouquet and Birkinshaw, 2008). On the other hand, units of Company B were found to be competing in several other aspects, including for control over product development, thus giving credit to literature regarding charters as a particular source

of internal competition (Birkinshaw and Lingblad, 2005). Overall, however, the limitation of resources remained a relevant construct for explaining these different forms of competition.

Unit autonomy. Data generally suggested that units with more autonomy also took more competitive initiatives, as literature on subsidiary initiatives suggests (Birkinshaw and Fry, 1998; Taggart and Hood, 1999). The case of Company A shows how a highly centralized and control-oriented firm can easily dampen the level of competitive and cooperative interaction between its units. Headquarters barely encourage autonomous initiatives, if at all, preferring to focus on top-down supervision and cost control, integration of functional services, and comparison of performance measures. Units generally have little room for autonomous initiatives outside their local operations. Meanwhile, the corporate environment of Company B was prone to a high number of subsidiary initiatives, which often triggered various forms of competitive behaviours as product markets coincidentally overlapped, again corroborating propositions found in earlier literature which suggest that higher autonomy leads to increased competition (Khoja, 2004).

Number of units. Both cases indicated that a higher number of units constituted a factor explaining competition, as scholars of organizational ecology would suggest (Hannan and Carroll, 1991). In Company A, data clearly indicated that benchmarking and pressure to maintain efficiency was higher in divisions that contained *many* units. Results also indicated that managers faced inherent limitations in their capacity to create strong bonds with the managers of distant foreign subsidiaries, reflecting earlier findings regarding both geographic (Kostova and Roth, 2003) and cognitive limitations (Hill and Dunbar, 2003). Displays of competitive behaviour seemed to be oriented towards subsidiaries with whom managers had previously never cooperated. Data obtained from Company B tended to indicate that the company's aggressive acquisition strategy, often aiming for increased market share, resulted in overlaps between different business lines, triggering competitive behaviour from subsidiaries wishing to maintain their products alive. This again supports earlier propositions from scholars studying internal competition for charters (Birkinshaw and Lingblad, 2005).

Formal collective goals. Data collected from cases suggested that formal directives do play a role in fostering greater cooperation by incorporating collective goals within the corporation's formal structure. In the case of Company A, shared directives directly contributed to fostering cooperation between units which were grouped together under a single mandate, an observation which seems to follow Simon's (1962) discussion of the basic characteristics of complex systems. In Company B, both GMs and corporate executives pointed to formal goals, often spoken of as "shared vision," as a facilitator of inter-unit cooperation. These formal goals, which were generally incorporated within the firm's official strategy and formal structure, clarified what units were to focus their efforts on, thereby making it easier for units to identify with each other and work on common projects. This corroborates some earlier propositions found in Smith *et al* (1995).

Lateral channels. Lateral channels, particularly those embodied in informal networks, were identified as an important factor in allowing inter-unit cooperation to emerge. Just as Galbraith (1973) pointed out in his work, many lateral channels are embodied within formal procedures endorsed by headquarters; however lateral channels do not necessarily imply formal structures, as many exchanges occur in an informal context. Company B seemed to rely more heavily on lateral channels. Subsidiary managers were able to rely on extensive collaboration software and were also able to meet and socialize at regularly held corporate events. This accordingly seemed to result in more successful communication and sharing among its units, as authors such as Chakravarthy (2010) suggest.

Cooperative values. Nearly all interviews suggested that cooperative values play an important role in facilitating cooperation, with managers often referring to the values of their corporate culture as elements which facilitate attempts to both obtain help from, and jointly work with, other subsidiary managers. This closely follows Nohria and Ghoshal's (1994) earlier proposal that social values constitute an alternative to formal structure for coordinating subsidiaries.

Other potentially relevant patterns

Another feature that seems to play a role in competitive processes, as the case of Company A indicates, is *comparability*. Sociologists such as Stinchcombe (2002) would argue that the existence of a common measure between peers facilitates the practice of comparing and ranking. Within the firm, units are constantly *comparing* (themselves) and *being compared* (by headquarters) on the basis of several measures, whether it be their financial, R&D, HR or marketing performance. This comparison allows managers to become aware of the measures which they have to act upon in order to improve their unit's ranking. This was confirmed by a number of interviewed managers. For instance, in Company A, a manager noted that:

In the residential division, plants are all alike. They are all about assembling doors, which makes them very easy to benchmark. [The Company] exceedingly uses the notion and practice of benchmarking, in order to see who performs and who doesn't. They all have the same performance indicators. Every week, they are compared. Every week, they have to be explained. This is something which ends up creating certain forms of competition. (GM3)

Units operating in different sectors or industries have fewer measures on which to be compared and therefore fewer grounds on which to act competitively. Meanwhile, the practice of comparing would not be possible without *some* knowledge and measurability of units' activities and performance. These measures form the basis for what Stinchcombe calls the "institutional creation of comparability." (Stinchcombe, 2002: 416) Comparability could influence the way agents strategically calibrate their behaviour towards each other, and could thus be expected to play a role in many competitive processes.

Non-corroborated factors

Two conjectured factors, namely individual incentives and group incentives, were not corroborated by data. Interviews did provide information about managerial incentives: data revealed that the incentive structures encountered in both cases were mostly focused on individual subsidiary performance, and were designed to have an effect on managers operating at GM-level and above, usually through a variable compensation scheme based on the financial performance of their respective units and divisions. However, no outstanding causal link with either cooperation or competition was pinpointed by any of the interviewed

managers. Moreover, group incentives did not seem to exist in either company. This quite simply made it impossible to corroborate the plausibility of these factors.

Limitations

The analysis of data suggests two possible limitations to findings. First, the data obtained may reflect *cognitive limitations* if causal links are not even consciously recognized by participants. This may be the case with individual incentives, which could be perceived as normal, or may have such gradual effects on behaviour that they are not perceived as an effective cause by interviewed managers. Evaluating whether incentives constitute a causal factor may perhaps require focused field observations and behavioral measurements which go beyond subjective narratives. Second, data may reflect *structural limitations* specific to each case. Depending on context, interviewees may choose not to disclose information because (a) they feel this would put their image and interests at risk within the corporation, or because (b) they do not want to appear inadequate, out of control, or unethical in front of the interviewer by showing their emotional commitment to certain interests. One could plausibly expect these risks to be higher in situations where organizational politics are involved and where participants have strong incentives to maintain their image (Buchanan and Badham, 2008: 319). As such, narratives obtained through interviews do not necessarily provide a clear distinction between “public” and “backstage” rhetoric. Ethnographic methods and behavioral experiments may provide a better methodological framework to examine how such issues may result in competitive behaviour between subsidiaries.

CONCLUSION

The present article performed a theoretical literature review as well as a qualitative case study. Both pointed to six factors that influence the emergence of competition and cooperation between subsidiaries of multinational corporations. This includes resource restriction, unit autonomy, number of units, formal collective goals, lateral processes, and cooperative values. These factors were inspired by, and conjectured from, various pieces of literature, and were corroborated by findings from each case.

The study recognizes that the *specific* mechanisms leading to the emergence of competition and/or cooperation between subsidiaries may vary according to context, as each firm is likely to contain its own unique dynamics of coopetition. However, these dynamics may tend to reflect the same underlying patterns, congruent with the logic of the six factors mentioned above. From a theoretical perspective, the study provides a further step towards a systemic understanding of inter-subsidiary relations, as well as a more useful depiction of the organizational complexity of multinational corporations. From a practical perspective, the study provides a coherent set of factors that could potentially help executives understand, anticipate, and cope with subsidiary interactions within their respective firms.

Future research could extend this exploratory analysis in several ways. Much work remains to be done regarding the evolution of subsidiary interactions in multinational corporations, as well as the way that both competition and cooperation vary according to socioeconomic context, type of industry, and stages of organizational growth. Practice-oriented researchers ought to study the effects that competition and cooperation can have on firm performance, and how different mechanisms may be optimally combined.

It should be noted that the results outlined above are those of an exploratory study. One should not take for granted that each of the identified factors contributes separately to observed outcomes. It remains to be seen whether these factors mediate, moderate, or otherwise interact with, each other. Factors may also have additional effects which were not accounted for. Autonomy, for example, could just as much affect cooperation as it does competition: greater autonomy is part of what makes units able to strive for resources coveted by others, but greater autonomy also seems to allow units to cooperate outside of strictly formal structures of control, i.e. in what has been characterized as lateral channels. The interaction between causal factors, which remains outside of the scope of this study, certainly deserves additional scrutiny.

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CONCLUSION

La présente étude accomplit plusieurs objectifs. Un premier article effectue une revue de littérature portant sur le concept de coopétition. Cette revue permet de déceler les différentes prémisses théoriques ainsi que les thématiques sous-recherchées de la littérature actuelle. L'une de ces thématiques est celle de la coopétition entre filiales, qui constitue l'objet d'étude du second article.

Ce dernier article forme la principale contribution théorique et empirique du mémoire. En situant et en clarifiant les concepts de compétition, de coopération et de coopétition, l'article situe clairement son propos dans une littérature emplies de perspectives divergentes. Il identifie ensuite un ensemble de facteurs permettant d'expliquer la dynamique de coopétition entre filiales. Six facteurs sont corroborés par l'étude de cas : la restriction des ressources, l'autonomie des unités, le nombre d'unités, les objectifs communs formels, les processus latéraux, et les valeurs coopératives.

L'étude comporte certaines limites. Il existe des limites à la généralisation des facteurs mis de l'avant. L'étude se base essentiellement sur des propositions inférées à partir de la littérature secondaire, de la documentation, ainsi que d'un nombre certes limité d'entrevues. Ceci est essentiellement dû à des contraintes structurelles, telles la difficulté d'obtenir des données à partir de répondants respectant les critères établis et l'intervalle de temps accordé à la collecte de données. Il n'en demeure pas moins que la richesse des données obtenues, de même que la pertinence et la cohérence espérée du propos, tendent à conférer une certaine plausibilité aux résultats. En effet, les facteurs mis de l'avant offrent un terrain fertile pour toute future recherche souhaitant comprendre et tester plus amplement la dynamique de compétition et de coopération entre différentes unités au sein des entreprises multinationales. Il est tout à fait possible que les facteurs puissent être généralisés grâce à un échantillonnage de plus grande échelle, falsifiés par des cas empiriques démontrant une logique inverse, ou encore corrigés et développés d'avantage à travers d'autres études de cas et/ou analyses critiques.