

# ARTICLES

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## COOPETITION STRATEGIES IN THE BRAZILIAN HIGHER EDUCATION

*Estratégias de coopetição na educação superior brasileira*

*Estrategias de cooperación en la educación superior brasileña*

### ABSTRACT

Coopetition is a relationship strategy between firms or institutions that compete and cooperate simultaneously in different areas. Coopetition occurs in several inter-organizational arrangements. This article establishes theoretical propositions about coopetition strategies based on the Consortium of Community Universities in the South of Brazil (Consórcio das Universidades Comunitárias Gaúchas - Comung), which is formed of 15 higher education institutions (HEIs) located in the South of Brazil. This article investigates a single case with multiple analysis units conducted through in loco interviews with the President of the Comung and the managers of the HEIs, along with secondary data. The results indicate that coopetition has been used as a mechanism for market protection and to gain access to unavailable resources individually from the dynamic interactions between the Comung HEIs.

**KEYWORDS** | Coopetition, competition, cooperation, higher education, Comung.

### RESUMO

A coopetição é uma estratégia de relacionamento entre empresas ou instituições que competem e cooperam simultaneamente, porém em áreas distintas, que se evidencia em diversos arranjos interorganizacionais. Logo, o objetivo deste artigo é gerar proposições teóricas sobre estratégias de coopetição com base no Consórcio das Universidades Comunitárias Gaúchas (Comung), composto por 15 Instituições de Educação Superior (IES), localizado no sul do Brasil. Trata-se de uma investigação de um caso único com múltiplas unidades de análise, realizado por meio de entrevistas in loco com o Presidente do Consórcio e os gestores das IES pesquisadas, além de dados secundários. Os resultados mostram que a coopetição tem sido utilizada como mecanismo de proteção de mercado e acesso a recursos indisponíveis individualmente, de acordo com as interações dinâmicas entre as IES que integram o Comung.

**PALAVRAS-CHAVE** | Coopetição, competição, cooperação, educação superior, Comung.

### RESUMEN

Coopetición es una estrategia de relación entre empresas o instituciones que compiten y cooperan simultáneamente en diferentes áreas. La coopetición ocurre en varios arreglos interorganizacionales. El presente artículo establece propuestas teóricas sobre estrategias de cooperación basadas en el Consorcio de Universidades Comunitarias del Sur de Brasil (Consórcio das Universidades Comunitárias Gaúchas - Comung), que está formado por 15 instituciones de educación superior (IES) localizadas en el sur de Brasil. Este artículo investiga un único caso con análisis múltiples conducidos a través de entrevistas in situ con el presidente del Comung y los gerentes de las IES, junto a datos secundarios. Los resultados indican que la cooperación se ha utilizado como mecanismo para proteger al mercado y para obtener acceso a recursos indisponibles individualmente de las interacciones dinámicas entre las IES del Comung.

**PALABRAS CLAVE** | Cooperación, competencia, cooperación, educación superior, Comung.

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## INTRODUCTION

The popular topic of relationship networks (Jarillo, 1988) has developed into several research focuses, such as alliances (Gulati, 1998), social networking (Granovetter, 1973; Burt, 1992; Coleman, 1988), learning (Khanna, Gulati, & Nohria, 1998), innovation (Pittaway, Robertson, Munir, Denyer, & Neely, 2004), and governance (Provan & Kenis, 2007). Further, these networks are the foundation of the more recent focus of coopetition (Bengtsson & Kock, 1999, 2000; Bengtsson, Eriksson, & Wincent, 2010), which is an emerging topic of relationship strategies between firms and institutions. In these terms, the traditional dichotomy between competition and cooperation is no longer appropriate to understand inter-organizational relationships (Yami & Le Roy, 2010).

Thus, this article establishes theoretical propositions about coopetition strategies based on the Consortium of Community Universities in the South of Brazil (Consórcio das Universidades Comunitárias Gaúchas - Comung), which is comprised of 15 higher education institutions (HEIs) and considered the largest higher education system in the South of Brazil (Comung, 2015). Therefore, the following question guides our investigation: how do community HEIs in the South of Brazil use coopetition strategies through the Comung? Hence, this article contributes to coopetition literature by creating theoretical propositions. This article furthers the emerging theoretical field by improving the understanding the empirical use of competitive strategies.

Coopetition has been analyzed under two approaches: as a context and as a process (Bengtsson et al., 2010). As a context, coopetition has been present in the value chain of a firm (Brandenburger & Nalebuff, 1995), which is composed by the firm, its clients, suppliers, substitutes, and complementaries. In this relationship, coopetition can occur in any direction based on the game theory (Nash, 1950). As a process, coopetition involves strategies of cooperation and competition simultaneously between competing firms in different areas and under different levels of interaction (Bengtsson & Kock, 2000).

For example, Apple hired Samsung to produce a chip for the iPhone 7 to solve problems in the iPhone 6 and reduce dependency on one supplier (Mendoza, 2014). Sony collaborated to distribute the content of PlayStation Now via Samsung Smart TVs (Snider, 2014). Amazon, characterized by pressure from its direct and indirect rivals, competed with suppliers in the editorial market in 2010 to reduce the bargaining power of the big publishing houses. In the electronics market, Walmart, Target, Best Buy, Home Depot, and Sears joined forces through the Alliance for Main Street Fairness to fight against Amazon (Stone, 2014).

The critical aspect of these relationships is that cooperation can create value and competition can divide this

value. The difficulty of measuring coopetition is in isolating the cooperation and competition strategies, considering the dynamism and implicit characteristics of these relationship strategies. Therefore, insufficient attention has been devoted to the boundaries between cooperation and competition among the actors involved with coopetition (Cygler & Sroka, 2016). Coopetition is the context to analyze the simultaneity and intensity of cooperative and competitive strategies. The timing of cooperation and competition can differ depending on the dynamics of the relationships between firms. For example, firms can cooperate and compete simultaneously (Luo, 2007; Ritala & Hurmelinna-Laukkanen, 2009), at different points in time (Chien & Peng, 2005), or sequentially (Galvagno & Garaggo, 2007; Ritala & Weggman, 2011).

Many industries have suffered economically from globalization, including those that are more traditional or basic, such as education. The pressure to adapt to the new circumstances of the globalized economy of the twentieth century brought many consequences for the international and Brazilian higher education academic system. In response, HEIs have elaborated policies, strategies, and actions to create or support competitive advantages. This strategic intent has encouraged HEIs to explore new alternative groupings. Additionally, since the target activities of the HEIs are related to national development and are part of an environment characterized by both market dynamics and state regulations, new inter-organizational arrangements are relevant for perpetuity. However, few studies have explored the adoption of coopetition strategies in this sector and have instead argued for increased competitiveness (Muijs & Rummyantseva, 2014) or researched inter-organizational relationships in educational networks (Fu, Wu, & Ho, 2007; Sjogren & Fay, 2002). In this article, we research the interactions among HEIs and identified competitive strategies from an inter-organizational perspective in the same industry.

For the empirical field, universities undergo strategic changes and are an increasingly important locus for the study of strategic action (Gioia & Thomas, 1996). Moreover, universities are particularly interesting for the study of strategic action because they are pluralistic organizations with multiple objectives that are not necessarily compatible with firms or endowed with a global strategic orientation. Therefore, universities are a relevant, yet inadequately explored, context for the study of strategic action (Jarzabkowski, 2003).

Next, we address the theoretical assumptions that support coopetition, presenting first the tenants of competition and cooperation. Consequently, we present the methodological aspects of the research design and explore the Comung case. Finally, we provide the final considerations and limitations of the research that provide opportunities for future research.

## THEORETICAL BACKGROUND

Before cooptation emerged as an important business strategy, competition and cooperation were traditionally used separately to describe the relations among firms (M'Chirgui, 2005). Until the mid-1980s, inter-organizational relations were analyzed mainly under the view of competition between firms and were influenced by economic theories. From the second half of the 1980s, studies on cooperation between firms widened, and the interaction between cooperation and competition strategies was considered from the 1990s.

Cooperation and cooptation strategies complement the competitive paradigm through the generation of new forms of intra-organizational governance and expansion of grouping alternatives between organizations (Brandenburger & Nalebuff, 1995; Padula & Dagnino, 2007). Consequently, the traditional dichotomy between competition and cooperation is no longer appropriate to understand inter-organizational relations (Yami & Le Roy, 2010).

### The competitive perspective

Competition measures forces between agents to obtain an advantage over the opponent. The objective is to ensure that subsequent risks are lower than future rewards (Hamel & Prahalad, 1994). The premise of the competitive paradigm is the dispute between agents for the same resources that cannot be achieved simultaneously. This motivates behavior for individual gains and results in counter-movements, which are intensified by challenges posed by competition or opportunities to improve market position (Padula & Dagnino, 2007).

The basic assumption is that individuals act to maximize their own interests (Bengtsson & Kock, 2000), which creates imitation among competitors to handle situations of environmental uncertainty (Bengtsson & Kock, 1999). This phenomenon is known as mimetic isomorphism (Dimaggio & Powell, 1983). Thus, even if organizations develop distinctive competencies, competitors' behaviors are homogenized for the legitimacy of their strategies.

Similarly, competition is a concurrent relationship to establish supremacy over a position. Through this, firms achieve superior performance and create a competitive advantage (Porter, 1980, 1985) or distinctive competencies that are difficult to imitate (Barney, 1991; Wernerfelt, 1984). Accordingly, the organizational competencies related to a firm's strategy that generate results better than the market average, characterized as organizational or core competencies, also provide a competitive position to the firm (Prahalad & Hamel, 1990). Thus, it is expected that a firm will adopt hostile behavior in the business environment since it

will exercise power over its competitors through distinctive and organizational competencies that differentiate it from others.

Competitors have shared goals that are determined independently. However, the common goal is based on competition as competitors dispute similar goals by using their available resources. Therefore, this relationship is defined as a condition of tension between different actors that tends towards conflict, disharmony, and relentless pursuit caused by an imbalance between the agents, even if this results in a zero sum (Eriksson, 2008).

Horizontally, firms compete for and seize competitive advantages (Porter, 1980, 1985) or distinctive competencies that provide products or services superior to competitors' (Barney, 1991; Wernerfelt, 1984). Furthermore, for horizontal relationships, these interactions can yield networks of inter-organizational complementarity (Bengtsson & Kock, 1999).

Vertically, the position, power, and dependency of firms within a network affect their competitive advantages. This inter-organizational relationship is influenced by the interaction of the purchasing or selling positions of the firms' operations (Brandenburger & Nalebuff, 1995; Gnyawali & Madhavan, 2001).

However, the competitive perspective has some limitations. The main criticism is that it does not recognize that a firm's decisions affect others and, consequently, the industry to which it belongs. Competition is passive and ignores the imperfections of the competitive relationship that can lead to, for example, a monopoly situation (Hunt & Morgan, 1995; Osarenkhoe, 2010). Thus, the term competition involves intrinsic conflict and rivalry to dispute the same features. Its objective is to develop aggressive strategies to achieve higher value than competitors.

### The cooperative perspective

Cooperation strategies occur when organizations attempt to reach their goals through reciprocal cooperation instead of competition (Jarillo, 1988). They are motivated by increased competition based on technology, environmental dynamism, or the demand for additional resources so they can acquire and share knowledge and technological development, access new markets, expand scale gains, create barriers of entry, and focus on their target activity (Khanna et al., 1998).

Cooperation aims to improve the efficiency of organizations through the of agents with common goals. It is an alternative to maintaining the competitiveness of firms in a highly competitive scenario. Conceptually, cooperation can be defined as a relationship in which individuals, groups, and organizations interact through dividing or leveraging capacity and additional resources for mutual benefit (Osarenkhoe, 2010).

In a highly competitive scenario, organizations develop strategies that generate sustainable competitive advantages. Cooperation is one of the adopted positions, since it prevents direct dispute with competitors, limits the conflict based on a cooperative agreement, enables the sustainability of the acquired competitive advantage, or encourages the generation of value (Bleeke & Ernst, 2001).

Hamel and Prahalad (1989) also state that cooperation is the most effective way for new competitors to access markets and technology, especially for smaller firms. However, these firms assume risks as they cooperate to produce mutual gains and compete to maximize their own returns (Tiessen & Linton, 2000). Thus, a paradox is created because the firm may develop selfish behavior and a relationship of trust and collaboration that shares information and experiences must be established.

The main implication of the cooperative paradigm is that interdependence between firms generates a positive sum, in which the performance of a participant is directly related to the performance of another, which emphasizes the development of joint actions to achieve mutual benefits (Jarillo, 1993; Padula & Dagnino, 2007). It is a strategy based on trust and harmony in relationships (Bengtsson & Kock, 1999) that has the foundation of concern and commitment to the other party (Das & Teng, 1998). For cooperation to be successful, behaviors of reciprocity and stability are necessary (Axelrod & Hamilton, 1981).

Other approaches justify the need for firms to cooperate rather than compete in a dynamic environment, as characterized by their organizational interactions. From the economic point of view, cooperation improves efficiency, reduces transaction costs, corrects the imperfections of the market, and makes organizations more flexible (Williamson, 1985). Moreover, following the Resource-Based View concept (Barney, 1991; Wernerfelt, 1984), resources are better used through cooperation, unless valuable resources are not shared.

However, a lack of confidence between participants, an unfavorable environment, a strategic mismatch between firms with different goals, opportunistic actions, or inadequate benefits limit the collaborative strategy (Tiessen & Linton, 2000; Jarillo, 1988; Bengtsson & Kock, 2000). This is associated with a lack of recognition of competitive forces in a cooperative relationship (Padula & Dagnino, 2007) or an understanding of those facts only as negative influences (Bengtsson et al., 2010). Similar to the competitive approach, the cooperative perspective is incomplete and can be improved through the concept of coopetition.

## The coopetitive perspective

In a dynamic and complex business world, firms increasingly engage in the simultaneous pursuit of cooperation and competition referred to as coopetition to handle uncertainties caused by increased global competition, new markets, and rapid technological changes (Bengtsson et al. 2010; Bengtsson & Kock, 2000; Park, Srivastava, & Gnyawali, 2014; Deitz, Tokman, Richey, & Morgan, 2010). The coopetitive strategy is defined as “[...] a paradoxical relationship between two or more actors simultaneously involved in cooperative and competitive interactions, regardless of whether their relationship is horizontal or vertical” (Bengtsson & Kock, 2014, p. 182). This strategy involves the duality of two contradicting interactions, which contributes to the definition of coopetition as a paradoxical relationship (Bengtsson & Kock, 2014).

The proposal of coopetition is the cooperation between rival firms to improve conditions, such as size or market demand, and the competition between rival firms for higher profits (Okura, 2007). Even if firms acquire resources, it is difficult to access them individually. An alternative is to create value by sharing knowledge and resources through cooperation while also competing to achieve the best results. This relationship involves economic and non-economic exchanges. In cooperation, power is across the value chain, while in competition, power is in the strength and position of the actors (Bengtsson & Kock, 1999, 2000; Bengtsson et al., 2010).

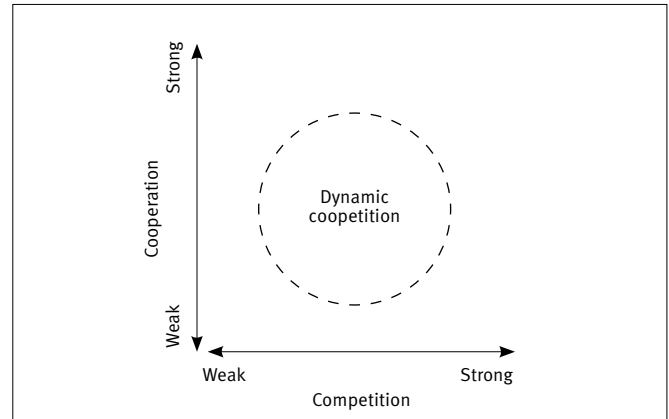
As the process of the interaction of competition and cooperation between firms, coopetition is a relational concept with several dimensions according to the types of established strategies (Bengtsson et al., 2010). Firms assume dynamic combinations to balance competition and cooperation according to the environment (Graph 1). Firms that occupy a more central and autonomous position in the network assume greater competitiveness. Similarly, firms with a greater diversity of markets are more likely to get results from centrality and coopetition (Gnyawali, He, & Madhavan, 2006). In this relationship, three types of resources circulate: reputation, information, and assets, which are optimized following the firm’s position (Gnyawali & Madhavan, 2001).

This concept has evolved to consider coopetition as a paradoxical relationship between two or more actors simultaneously involved in cooperative and competitive interactions, whether they are horizontal or vertical (Bengtsson & Kock, 2014). It is challenging to maintain the dynamic balance between these two approaches as there is a constantly changing strategic mix of cooperation and competition (Bengtsson & Kock, 2000; Roy & Yami, 2009).

However, despite competition being based on convergent interests, its model is criticized mainly because of the risks posed by environmental opportunism and dynamism (Gulati, Nohria, & Zaheer, 2000; Hamel, 1991). Moreover, relationships fail when the agents do not recognize the asymmetry of benefits and perceive injustice (Khanna et al., 1998). Coopetition creates dependency that is manifested through the negotiation of information between the parties. This exchange must maintain a minimum level for cooperation, while its segregation provides sources of competition (Baumard, 2008).

We established a framework of similarities and differences between competition, cooperation, and coopetition strategies to stress the importance of coopetition (Exhibit 1).

Graph 1. The arena for dynamic cooperation



Source: Bengtsson, Eriksson, and Wincent (2010).

Exhibit 1. Comparing competition, cooperation, and coopetition

Categories	Competition	Cooperation	Coopetition
Concepts	Dispute by the agents for the same resources that cannot be achieved individually (Padula & Dagnino, 2007). Maximization of individual interests (Bengtsson & Kock, 2000).	Division of skills or additional resources for mutual or superior benefit (Osarenkhoe, 2010).	Cooperation in areas different from where they compete (Bengtsson & Kock, 2000) or in a chain that adds value to the firm (Brandenburger & Nalebuff, 1995).
Objectives	Gains higher than the competitors.	Resource sharing to access new markets, creation of entry barriers and focusing on target activity.	Creation of opportunities, removal of external obstacles, or neutralization of threats.
Theoretical background	Competitive advantage. Distinctive competencies.	Resource Based View (RBV).	Game Theory, Transaction Cost theory (TCT), Resource Based View (RBV).
Premises	Conflict, bargaining power.	Harmony, trust, reciprocity.	Interdependence, dynamism, complexity.
Characteristics	Independent decisions about common goals. Search for a balance between the agents.	Development of joint actions to achieve mutual benefits and common goals. Agents avoid conflict by making cooperative agreements. Use of formal or informal agreements (Osarenkhoe, 2010; Bengtsson & Kock, 1999).	Creating and sharing value between agents. Interest structure and partially convergent goals. Overcoming possible intentions of selfish behavior by overlapping interests (Padula & Dagnino, 2007; Bengtsson & Kock, 1999, 2000; Bengtsson et al., 2010).
Restrictions for the success of the strategy	Not achieving a performance higher than the others' performance, thus generating a competitive advantage (Porter, 1980, 1985) or distinctive competencies that are difficult to imitate (Barney, 1991; Wernerfelt, 1984).	Lack of trust between the agents. Strategic misalignment between the agents. Opportunistic behavior (Tiessen & Linton, 2000; Jarillo, 1988; Bengtsson & Kock, 2000).	Agents invest resources to increase the total to be shared, which will not necessarily be divided equally (Padula & Dagnino, 2007; Abdallah & Wadhwa, 2009).
Criticism	Lack of recognition of the dependence of the firm's decisions on the industry and economic imperfections (Osarenkhoe, 2010).	Lack of recognition of competitive forces or these being seen as negative influences (Padula & Dagnino, 2007).	Opportunism, asymmetry, perception of justice between those involved (Gulati et al., 2000). Difficulty to replicate the predictive model based on the Game Theory for the coopetitive environment (Armstrong, 1997).



## METHODOLOGY

From a qualitative approach, this research focuses on a single case study with multiple analysis units. This technique was chosen to comprise a complex, context-dependent phenomenon (Eisenhardt, 1989). The research illuminates the discussion of competition and cooperation in HEIs through coopetition (Muijs & Romyantseva, 2014).

Despite being integrated in the same consortium, the Comung HEIs have significant differences that impact their competitiveness, including their size, location or scope, quantity and quality of graduates, and strict sense and scientific post-graduate programs. As the Comung consists of 15 HEIs, geographic proximity was a criterion for choosing the HEIs to better highlight the cooperative and competitive features. Using this criterion, six HEIs and the presidency of the Comung were surveyed (Exhibit 2).

### Exhibit 2. Institutions researched

Institution	Interviewee(s)	Location of the campus/campuses	Number of students (2014 basis)
Comung	President		Approximately 210,000
Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS)	Vice-Dean of Research, Innovation, and Development	Porto Alegre (main campus) and Viamão (city located in the Metropolitan Region of Porto Alegre).	Approximately 30,000
Centro Universitário Univates (Univates)	Dean and Vice-Dean of Business Administration	Lajeado (city located in the West region of the South of Brazil and approximately 110 km from Porto Alegre.)	More than 13,000
Universidade de Santa Cruz do Sul (Unisc)	Vice-Dean of Business Administration	Santa Cruz do Sul (city located in the West region of the South of Brazil and approximately 60 km from Lajeado.)	More than 12,000
Centro Universitário La Salle (Unilasalle)	Vice-Dean of Development	Canoas (city located in the Metropolitan Region of Porto Alegre).	More than 8,000
Universidade Regional do Noroeste do Estado do Rio Grande do Sul (Unijuí)	Dean	Ijuí (main campus), Santa Rosa, Panambi, and Três Passos (all located in the North-West of the South of Brazil).	More than 10,000
Universidade de Cruz Alta (Unicruz)	Dean	Cruz Alta (city located in the North-West of the South of Brazil) and approximately 40 km from Ijuí.	More than 3,000

For collecting data on these HEIs, several sources were used through direct and indirect documentation. As a direct source documentation, semi-structured interviews were conducted with the President of the Comung and with the Deans and/or Vice-Deans of the selected HEIs. Thus, seven interviews were conducted with each lasting 40 minutes to one hour. Given the qualitative approach, the validity and reliability of the method were carefully considered. The script for the interviews was based on three analysis categories from the theoretical foundations of competition, cooperation, and coopetition (Exhibit 3). As each category had six questions, the script was composed of 18 questions. The interviews were accomplished separately in each HEI from November 2014 to January 2015.

### Exhibit 3. Analysis categories used for the interview script

Categories	Subcategories	References
Competition	Competition for markets, products/services, geographic location; academic areas, competition between the Comung HEIs and other HEIs; factors generating competitive advantage.	Porter (1980, 1985); Padula and Dagnino (2007); Hamel and Prahalad (1994); Prahalad and Hamel (1990).
Cooperation	Actions, motivations, benefits, symmetry, or asymmetry of power and information, based on trust or contracts, rules and norms to be a member of Comung; formal ties of cooperation with other institutions.	Jarillo (1988, 1993); Osarenkhoe (2010); Tiessen and Linton (2000); Das and Teng (1998).
Coopetition	Conflicts, advantages, difficulties, individual protagonism of the Comung HEIs.	Bengtsson and Kock (1999, 2000); Bengtsson, Eriksson, and Wincent (2010); Gnyawali, He, and Madhavan (2006); Padula and Dagnino (2007).

For the indirect documentation, information already formalized by the Comung and HEIs in internal documents, promotional materials, and their institutional sites were gathered. By associating the interviews with the secondary data, observations, and notes of researchers, the data were triangulated. This strategy allows for a more comprehensive analysis, since it considers more than one source of information (Flick, 2009). While employing both primary and secondary data, data triangulation obtains more validity and reliability through collecting data at different times from different sources or through using multiple instruments to study one phenomenon (Collis & Hussey, 2005; Stake, 1998).

The type of triangulation used was methodological (Denzin, 1978), which addresses the use of multiple methods to obtain more complete and detailed data. This combines several methods to better understand the different aspects of a reality and avoid the biases of a single methodology (Azevedo, Oliveira, Gonzales, & Abdalla, 2013). The interviews with key informants from different HEIs allowed for the crossing of information about the same phenomenon. As mentioned, the Comung HEIs have several differences and as each has its own characteristics and autonomy. Their different perceptions of cooptation were contrasted at various points, which allowed the collected information to be confirmed.

Additionally, the information collected by the interviews was contrasted with the Consortium's official documents, such as meeting records and statutes. For example, the information collected in the interviews about the policies of competition between the Comung HEIs was contrasted with the interviews and the Consortium's statutes. These procedures provide internal validity of the information (Azevedo et al., 2013) so the wide range of informants with individual experiences and views can be compared. Further, the analysis of several corporate documents contributes to the credibility of the information in a qualitative approach.

For data analysis, the content analysis technique was used to infer knowledge through the generation of quantitative indicators (Bardin, 2011). Data analysis was performed using summaries prepared by the authors, interviews recordings, and printed and digital materials. The data were constantly compared (Strauss & Corbin, 1990) between theory and results to further the discussion of cooptation and our propositions.

## THE COMUNG CASE

The Comung has approximately 208,000 undergraduate and graduate students, representing about 60% of the students in higher education in the South of Brazil. The Comung HEIs are from more than 40 university campuses and 380 municipalities in the South of Brazil. The 15 HEIs participating in the Comung

are: Feevale University (Universidade Feevale), IPA Methodist University (Centro Universitário Metodista IPA), Pontifical Catholic University of Rio Grande do Sul (Pontifícia Universidade Católica do Rio Grande do Sul - PUCRS), Franciscan University (Centro Universitário Franciscano - Unifra), La Salle University (Centro Universitário La Salle - Unilassalle), Catholic University of Pelotas (Universidade Católica de Pelotas - UCPel), University of Caxias do Sul (Universidade de Caxias do Sul - UCS), University of Cruz Alta (Universidade de Cruz Alta - Unicruz), Regional University of Northwest of the State of Rio Grande do Sul (Universidade Regional do Noroeste do Estado do Rio Grande do Sul - Unijuí), University of Santa Cruz do Sul (Universidade de Santa Cruz do Sul - Unisc), Unisinos University (Universidade do Vale do Rio dos Sinos - Unisinos), Univates University (Centro Universitário Univates), University of Passo Fundo (Universidade de Passo Fundo - UPF), University of the Campanha Region (Universidade da Região da Campanha - Urcamp), and Integrated Regional University of Alto Uruguai and Missões (Universidade Regional Integrada do Alto Uruguai e das Missões - Uri) (Comung, 2015).

Due to the geographic coverage and academic areas, these HEIs have a supply overlap and often compete for the same markets. However, these HEIs also cooperate in certain activities, especially in strengthening the position of community HEIs in the context of Brazilian higher education and political power with regulatory agencies of the federal government, such as the Ministry of Education (Ministério da Educação [MEC]), Coordination for the Improvement of Higher Education Personnel (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior [CAPES]), and National Counsel of Technological and Scientific Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico [CNPq]).

Thus, this seemingly dichotomous coexistence has been developed for over 20 years within the Comung, with periods of greater or lesser engagement between HEIs, marked by the dynamics of the Consortium, industry pressures, regulatory bodies, and the market. Therefore, this research focuses on the key aspects developed by the Comung, both in competition and cooperation, to theoretically explore continuing this inter-organizational arrangement through cooptation.

## Competition in/of the Comung

The competition between the Comung HEIs occurs naturally from competing for students and improving the quality of activities and courses, especially between those HEIs that are geographically close. However, this competition has several elements that soften market relations, through attention to geographical areas of coverage and non-predatory or aggressive competition.

These elements are built tacitly between the HEIs as the trust relationships are strengthened. This network exhibits “civilized competition” as it expresses a set of rules that strengthen the competitive position of the group (Muijs & Rumyantseva, 2014). Moreover, smaller HEIs are favored by this competition than those with more resources.

As most students in Brazilian higher education work, generally the HEIs operate during the evening after the daily work-shift of the students. Thus, the biggest competition is for HEIs that are geographically close because the audience is regionalized. However, the territory between the HEIs is safeguarded in favor of the relationships between HEIs and their managers, despite not being formalized and having no clear demarcation. This is the most noticeable aspect of the HEIs located in the rural side of the South of Brazil, because hardly any Comung HEIs will settle in a city where a co-sister institution is located. The metropolitan area of Porto Alegre is somewhat different due to greater overcrowding and nearby towns, which causes more overlapping of the HEIs’ geographic markets. Evidence of this was common in the interviews and verified in the Comung statutes.

The main source of financial support for the community HEIs are the fees students are charged, especially for undergraduate courses. Thus, the portfolio of undergraduate courses of the Comung HEIs is formed according to their individual interests and market with no delimitation by the Consortium. There are even Comung HEIs that are close geographically that have similar portfolios of undergraduate courses, indicating competition for the same markets.

When compared and considered as a whole, the Comung HEIs compete based on the quality of their activities. Beyond the Consortium, the largest competition is with private HEIs, but this is more non-collaborative and based on their differences rather than aggressive. Moreover, these HEIs benefit from the traditional development of their regions and overlapping in their areas of coverage, which increase barriers to private entrants. This is supported by the following interviews:

[...] we [Comung] create a kind of shield around the State that has always been a reference in quality education. So if you do a national analysis, the RS is the State where the private HEIs came here lastly because we always had a very strong regional coverage.

[...] our big difference is with private HEIs, which has another focus of business, profit, and not the involvement that Community HEIs has with

its base, its area of operation, trying to help the region to start developing alternatives, work together in the regions of greatest need, and this is our big difference.

In this scenario, the external environment, mainly the competition, may pressure actors to adapt to new challenges (Hagberg-Andersson, 2006). In more dynamic and unstable markets, competition is higher (Padula & Dagnino, 2007). A coopetition strategy between firms can strategically manage the partially convergent interests and goal structures and create value. Consequently, coopetition improves competitiveness and efficiency for competitors. Firms gain a competitive edge and develop skills and resources they need internally (Choi, 2005). The interaction between cooperation and competition can reduce costs, share risks, explore skills, and improve efficiency. Moreover, rivals rarely compete in all businesses, products, or markets, providing opportunities to cooperate. Thus, this leads us to the first proposition of this article.

P1: Competition increases through a cooperative relationship, which protects the geographical market where the actor operates and raises barriers to new entrants.

## Cooperation in the Comung

There is much administrative and academic cooperation between the HEIs of the Comung (Exhibit 4). The exchange of experiences has occurred since 2010, including bureaucratic and administrative activities inherent to the sector and implementation and management activities for academic courses and programs. This contributes to the competitiveness of the HEIs by reducing and sharing costs, improving learning, and qualifying and differentiating activities.

Even in areas of intense competition such as undergraduate courses, the Comung HEIs cooperate through the exchange of experiences, including those that are geographically close. In areas with less competition, such as postgraduate courses, some HEIs cooperate more intensively by offering associate programs that require a closer relationship between teachers. This is beneficial and provides access to unavailable resources, retains faculty, and promotes verticalization of a particular knowledge field. These aspects converge with the benefits observed by Muijs, Ainscow, Chapman, and West, (2011), which include the transferal of professional, practical, and political experiences between institutions, the development of capabilities to fill organizational gaps, and improved resilience to external changes. This is illustrated by the following interviews:



[...] we [PUCRS] had during 5 years a doctorate in full association with the UCS in the business administration area. When we did this doctorate, neither we nor the UCS had the conditions to do this doctorate. It was of this partnership between the two institutions that had this doctorate and now, this year [2015], we got that each institution has its own doctorate.

[...] the issue of cooperation is so strong that the Comung has the Paiung, which is the institutional evaluation program of the Consortium, where we met us periodically to exchange experiences about, for example, evaluation processes, evaluation experiences, evaluation of disciplines, and student behavior.

#### Exhibit 4. Examples of cooperation between Comung HEIs

Administrative actions
<ul style="list-style-type: none"> <li>- Joint political movement together with regulatory agencies of the federal government, such as the Ministry of Education, CAPES, and CNPq.</li> <li>- Active participation and support in the construction and implementation of student loan programs by the federal government (e.g., the Student Financing Fund [Fundo de Financiamento Estudantil - FIES]) and partial and integral grants (e.g., Program University for All [Programa Universidade para Todos – Prouni]).</li> <li>- Active participation in the construction and approval of a specific federal regulation that recognizes the status of the community universities (Law No. 12881, 2013) and the tax recovery plan (Incentive Program for Restructuring and Strengthening of Higher Education Institutions – [Programa de Estímulo à Reestruturação e ao Fortalecimento das Instituições de Ensino Superior – Proies], Law No. 12688, 2012).</li> <li>- Joint action with other national and regional entities, such as the Brazilian Association of the Community Universities (Associação Brasileira das Universidades Comunitárias [ABRUC]), the Association of Educational Foundations in the State of Santa Catarina (Associação Catarinense das Fundações Educacionais [ACAFE]), the Brazilian Association of Educational and Evangelical Institutions (Associação Brasileira de Instituições Educacionais Evangélicas [ABIEE]), the National Association of Catholic Education of Brazil (Associação Nacional de Educação Católica do Brasil [ANEC]) to reinforce their bargaining power with the federal government.</li> <li>- Joint negotiation with teachers' and technical and administrative civil servants' unions.</li> <li>- Joint purchases of materials and software, which has several obstacles, such as cooperation difficulties in the middle ranks of the HEIs management, differences in the specifications of the materials and methods of payment, and relationships with local suppliers of each HEI according to their community character.</li> <li>- Two editions of MBAs in Management of HEIs for the qualification of managers, including an international module in European universities.</li> <li>- Sharing managerial experiences and administrative procedures.</li> </ul>
Academic actions
<ul style="list-style-type: none"> <li>- Association to joint implementation of post-graduation courses (e.g., Master's Degree in Full Attention to Health - Unicruz and Unijuí; Ph.D. in Business Administration - PUCRS and UCS).</li> <li>- The offer of a continuing education program for general teachers (with experts from Finland participating in one of the editions) and specifically for teachers in the field of Engineering.</li> <li>- Preparation of Internal Notices of Research by the Comung, involving researchers from at least three HEIs to foster research and associated research lines.</li> <li>- Agreements with foreign universities to share experiences of students and teachers (e.g., UAS7 – <i>Seven Universities of Applied Sciences</i>, Germany).</li> <li>- Two Comung Seminars to discuss teaching, research, extension, and management activities.</li> <li>- Exchange of experiences of implementation and management of academic courses and programs.</li> </ul>

The shared objectives are more important than maximizing individual profits. Self-interests are overlapped, congruent, and positively dependent on each other, thus generating a strategic interdependence among firms known as the coepetitive system of value creation (Dagnino & Padula, 2002; Padula & Dagnino, 2007). Coepetitive relationships are based on trust, reciprocity, and altruism (Kanter, 1994). However, participants cooperate in distinct fields where they are competing (Luo, 2005). Firms collaborate to create value, away from customers, and compete

to appropriate the value that has been created, near customers (Bengtsson & Kock, 2000; Walley, 2007).

Other examples, discussed in many interviews, show the strength of this cooperation and access to unavailable resources. For example, when the federal government resumed the operator function of the Student Financing Fund (Fundo de Financiamento Estudantil [FIES]) program through the National Fund for Educational Development (Fundo Nacional de Desenvolvimento da Educação [FNDE]) in 2010 it found several problems. Thus, the

federal government, recognizing Comung as a significant partner in this policy, used one of its HEIs (the Unisc) as a pilot case for resolving inconsistencies and implementing changes at the national level. This caused several changes for the Comung HEIs. For the Incentive Program for Restructuring and Strengthening of Higher Education Institutions (Programa de Estímulo à Reestruturação e ao Fortalecimento das Instituições de Ensino Superior [Proies]), the movement of the Comung jointly with other national and regional entities resulted in the approval of Law No. 12688, 2012, which allowed several HEIs, such as Unicruz and Urcamp, to renegotiate their debts with the federal government. This achievement was crucial to the financial health of these HEIs.

Generally, cooperation is conducted by the Consortium or the more interested HEIs. Exchanges occur between those with similar size, geographic region of expertise, or knowledge field. However, as there are significant differences between the Comung HEIs, the advancement of some cooperation activities are hindered by the HEIs' individual characteristics.

Nevertheless, coopetition has the same origin as collaboration since both arise from common interests that substitute the maximization of individual gain. However, this is not necessarily divided equally between the parties (Padula & Dagnino, 2007). Although interests are aligned, a discord point will cause dispute over the division of the results. The earnings of the relationship will be proportional to what was invested, what was obtained, and the individual power exercised in the relationship strategy (Abdallah & Wadhwa, 2009). From this, we present the second proposition of this study.

P2: Cooperation enables access to unavailable resources individually, generating more learning and benefits from shared costs and increased quality, which improves competition capacity.

## Coopetition in the Comung

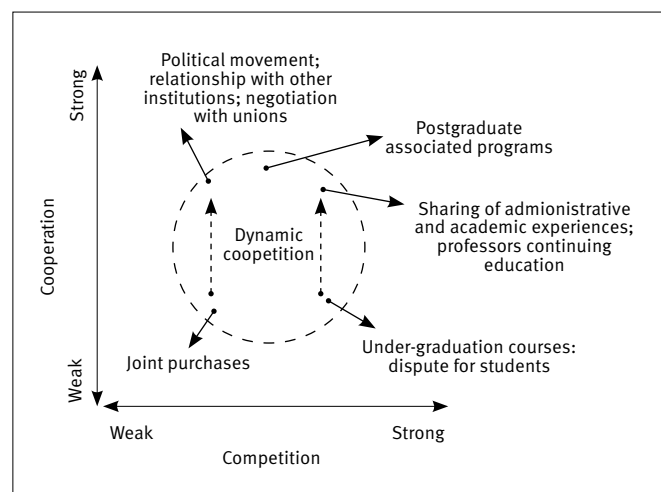
Competition and cooperation relationships between Comung HEIs have assumed several configurations (Graph 2). A topic may be dominated by competition assumptions, but also may advance the sharing of experiences and resources. This can be illustrated by the evolution of the Comung in relation to its largest unification from political discussions and consequent regulations and sharing of administrative and academic experiences. The following interviews exemplify that:

[...] the universities that compose the Comung alternate themselves in the protagonism. Some of them will be with major role at given time, ac-

ording to the theme. You can be the protagonist in the theme “x”, but in the theme “y” you may haven't interest [...]. So, the Comung works variably over time, by own characteristics of each institution, and variable at the same time according to the topic under discussion. Now, what is important is that because of this I think the Comung very strong, that is, there are issues of common interest.

There was a time that there was a much more alive competition, much fiercer between the institutions. But, as the Consortium itself was constituted, it was creating space for discussion, conversation, creating a degree of trust between the institutions, and some fears eased and there is a strong respect between the institutions [...].

Graph 2. Competition between Comung HEIs



Source: Adapted from Bengtsson, Eriksson, and Wincent (2010).

With different intensities regarding competition between HEIs, actions have advanced from an initial timid relationship to closer cooperation. Over time, the Comung HEIs have changed their positions and pursue cooperation in both activities of weak and strong competition. Some examples are shown in Graph 2. Despite the advances, coopetitive relationships are not homogeneous among the Comung HEIs, as some are more cooperative and others are more reclusive or competitive.

These types of coopetition relationships between Comung HEIs reflect the maturity of the topics according to the Consortium. Coopetition is based on sharing objectives, transferring knowledge, identifying complementarities, flexible inter-organizational networks (Choi, Garvia, & Friedrich, 2009), and

reciprocity (Muijs & Romyantseva, 2014). The balance between competition and cooperation is difficult because some topics are directly linked to the HEIs' financial and academic sustainability, which implies greater and prolonged decisions. The limit of cooperation is inherent to each HEI since a greater openness for cooperation can weaken competitive capacity.

The Comung, for example, did not promote further initiatives such as the one made by the Association of Educational Foundations in the State of Santa Catarina (Associação Catarinense das Fundações Educacionais [ACAFE]) that promotes a joint final entrance exam. There is also no cooperation for the provision of undergraduate courses to avoid an autophagic process, especially between HEIs that are geographically close. Therefore, the income generated by undergraduate courses is mandatory for the competition for students and inhibits the progress of cooperation. Further, cooperative relationships of the Comung are developed based on trust and informal relationships between HEIs and their managers, which was found in the interviews and internal documents. Therefore, greater initiatives to establish cooperative strategies will create stronger trust relationships (Muijs et al., 2011).

Cooperation is based on the interdependence between firms or institutions, with the partial convergence of interests and objectives through disparate relationships. Its foundation is in aligning different interests toward a common goal and creating opportunities to generate competitive advantages, while removing external obstacles and neutralizing threats (Chin, Chan, & Lam, 2008). However, participants cooperate in areas different from where they are competing (Luo, 2005). Additionally, cooperation can be strengthened by the existence of market commonality and resource asymmetry between firms. Market commonality contributes more to competition whereas resource asymmetry contributes more to cooperation (Hung & Chang, 2012). On this basis, we present the third proposition of this article.

P3: Cooperative relationships develop over time and according to the influence of the topic, which implies the intensity of the cooperation and competition.

## FINAL CONSIDERATIONS

Based on competition and cooperation strategies used by the Comung HEIs in the South of Brazil, this study contributes to cooperative literature by creating three theoretical propositions. Therefore, the relationship strategies established by the Comung HEIs were used as an empirical field.

First, there have been many changes in the market structures of emerging countries such as Brazil. Until the late

1980s, Brazil was characterized by being extremely closed with little competition and few suppliers. In the early 1990s, with the end of the market reserves and the entry of foreign firms, there was a restructuring of the competition in most industries, including education. One strategy for this new competitive scenario was to strengthen cooperative relationships to create mechanisms to protect the market. However, the interaction between competition and cooperation is not static, being susceptible to internal and external environmental factors (Luo, 2007) that constantly create opportunities for value (Crisan, 2013) or threats.

Second, resources, such as knowledge, capabilities, and assets, are not homogeneous between institutions that compete for the same market. Thus, the heterogeneity of resources can stimulate cooperation to make this an advantage for the firms (Bengtsson & Kock, 2000). Moreover, the transfer of knowledge through cooperation and competition between firms can increase the customer base and financial performance (Luo, Slotegraaf, & Pan, 2006). Considering the need for resources for greater engagement on cooperation, larger HEIs may not be as committed as smaller HEIs. Thus, just as the interdependence between HEIs can create and share value through greater interaction, its benefits are also not necessarily equally divided.

Third, for the cooperative strategy to provide better results, there must be a balance between competition and cooperation (Gnyawali & Park, 2011). However, depending on the actors and the environment, one strategy will prevail. This paradox makes the adoption of collaborative behavior possible and individualistic, determining its position according to the dynamism of the relationships. Thus, each HEI operates according to its counterpart, and views opportunities or threats and establishes countermeasures. This is in line with Dagnino and Padula (2002) who identify cooperative as a hybrid strategy that unites firms' deliberate or emerging actions according to the environmental dynamism and its ability to improve positions, resources, or capabilities.

Although cooperation has been discussed in light of theory, the relevance of cooperation depends on the regional and national educational policies while considering the market aspects. Cooperative strategies, with an emphasis on competition, result from institutional policies that consider the education sector as a potential market with business opportunities. Cooperation is based on collaboration, and is seen more frequently in countries where there is an education market structure and competitive behavior is limited, such as Chile, England, and Sweden (Muijs & Romyantseva, 2014). This improved understanding creates opportunities for future studies. For example, the theory of social capital can be used to analyze the centrality of each HEI. Finally, the institutional influences that permeate the relationship strategies, both for the HEIs and the Comung, can be explored.

## REFERENCES

- Abdallah, F., & Wadhwa, A. (2009). *Collaborating with your rivals: Identifying sources of cooperative performance*. Copenhagen, Denmark: Copenhagen Business School.
- Armstrong, J. S. (1997). Why can't a game be more like a business? A review of *Co-opetition* by Brandenburger and Nalebuff. *Journal of Marketing*, 61(2), 92-95. doi:10.2307/1251833
- Axelrod, R., & Hamilton, W. D. (1981). The Evolution of Cooperation. *Science*, 2, 1390-1396. Retrieved from <http://science.sciencemag.org/>
- Azevedo, C. E. F., Oliveira, L. G. L., Gonzales, R. K., & Abdalla, M. M. (2013). A estratégia de triangulação: Objetivos, possibilidades, limitações e proximidades com o pragmatismo. In: IV Encontro de Estudo e Pesquisa em Administração e Contabilidade. Brasília, DF: Nov. 3-5.
- Bardin, L. (2011). *Análise de conteúdo*. São Paulo, SP: Edições 70.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. doi: 10.1177/014920639101700108
- Baumard, P. (2008). Learning strategies in cooperative environments. In: Le Roy, F. & Yami, S. (Eds.), *Coopetition: Winning strategy for the XXIst century* (125-145). Northampton, USA: Edward Edgar Publishing.
- Bengtsson, M., Eriksson, J., & Wincent, J. (2010). Co-opetition dynamics – an outline for further inquiry. *Competitiveness Review*, 20(2), 194-214. doi:10.1108/10595421011029893
- Bengtsson, M., & Kock, S. (1999). Cooperation and competition in relationships between competitors in business networks. *Journal of Business & Industrial Marketing*, 14(3), 178-194. doi:10.1108/08858629910272184
- Bengtsson, M., & Kock, S. (2000). "Coopetition" in business networks – to cooperate and compete simultaneously. *Industrial Marketing Management*, 29(5), 411-426. doi:10.1016/S0019-8501(99)00067-X
- Bengtsson, M., & Kock, S. (2014). Coopetition – Quo vadis? Past accomplishments and future challenges. *Industrial Marketing Management*, 43(2), 180-188. doi:10.1016/j.indmarman.2014.02.015
- Bleeke, J., & Ernst, D. (2001). Colaborando para competir. In: Mintzberg, H. & Quinn, J.B. (Eds.), *O processo da estratégia*. (3rd. ed.) Porto Alegre, RS: Bookman.
- Brandenburger, A. M., & Nalebuff, B. J. (1995). The right game: Use game theory to shape strategy. *Harvard Business Review*, 73(4). Retrieved from <https://hbr.org/>
- Burt, R.S. (1992). *Structural holes: The social structure of competition*. Cambridge, USA: Harvard University Press.
- Chien, T.-H., & Peng, T. J. (2005). Competition and cooperation intensity in a network: A case study in Taiwan simulator industry. *Journal of American Academy of Business*, 7(2), 150-155.
- Chin, K. S., Chan, B. L., & Lam, P. K. (2008). Identifying and prioritizing critical success factors for cooperative strategy. *Industrial Management & Data Systems*, 108(4), 437-454. doi:10.1108/02635570810868326
- Choi, P. (2005). The nature of co-opetition: Literature review and propositions. *American Marketing Association, Educators' Conference Proceedings*, 16, 105-106.
- Choi, P., Garcia, R., & Friedrich, C. (2009). Under what conditions can cooperative development?: An investigation into cooperative formation. *American Marketing Association*, Winter, 13-14.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94 (Suppl.), S95-S120.
- Collis, J., & Hussey, R. (2005). *Pesquisa em administração: Um guia prático para alunos de graduação e pós-graduação*. (2nd ed.) Porto Alegre, RS: Bookman.
- Consórcio das Universidades Comunitárias Gaúchas. (2015). O maior sistema de educação superior em atuação no Rio Grande do Sul. Retrieved from Comung Web site: <http://www.comung.org.br>.
- Crisan, P. (2013). Coopetition structural dynamics. *Managerial Challenges of the Contemporary Society*, 5, 81-86.
- Cygler, J., & Sroka, W. (2016). The boundaries of cooperative: A case study of Polish companies operating in the high-tech sector. In: Ateljevic, J., & Trivic, J. (Eds). *Economic Development and Entrepreneurship in Transition Economies: issues, obstacles and perspectives*. (253-269). Cham, Switzerland: Springer International Publishing.
- Dagnino, G. B., & Padula, G. (2002). Cooperative Strategy: A new kind of interfirm dynamics for value creation. In II Annual Conference of EURAM. Stockholm: May 9-11, 2002.
- Das, T. K., & Teng, B. S. (1998). Resource and risk management in the strategic alliance making process. *Journal of Management*, 24(1), 21-42. doi:10.1016/S0149-2063(99)80052-X
- Deitz, G., Tokman, M., Richey, R. G., & Morgan, R. M. (2010). Joint venture stability and cooperation: Direct, indirect and contingent effects of resource complementarity and trust. *Industrial Marketing Management*, 39(5), 862-873. doi:10.1016/j.indmarman.2010.01.003
- Denzin, N. (1978). *The research act: A theoretical introduction to sociological methods*. (2nd ed.) New York, USA: Mc Graw-Hill.
- Dimaggio, P., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.
- Eriksson, E. (2008). Achieving suitable cooperative in buyer-supplier relationships: The case of AstraZeneca. *Journal of Business-to-Business Marketing*, 15(4), 425-454. doi:10.1080/15470620802325674
- Flick, U. (2009). *Desenho da pesquisa qualitativa*. Porto Alegre, RS: Artmed.
- Fu, F. L., Wu, Y. L., & Ho, H. C., (2007). The design of cooperative pedagogy in an integrated web-based learning model. In: Hui, K.-C., Pan, Z., Chung, R.C.-C., Wang, C.C.L., Jin, X., Gobel, S., & Li, E.C.-L. (Eds), *Technologies for e-Learning and digital entertainment* (293-304). Berlin, Germany: Berlin Heidelberg.
- Galvagno, M., & Garaffo, F. (2007). The promise of cooperative as a field of research. In: EURAM- The European Academy of Management 7<sup>th</sup> Annual Conference. Paris, France: May 16-19.
- Gioia, D. A., & Thomas, J. B. (1996). Identity, image and issue interpretation: Sensemaking during strategic change in academia. *Administrative Science Quarterly*, 41(3), 370-403. doi:10.2307/2393936
- Gnyawali, D. R., He, J., & Madhavan, R. (2006). Impact of co-opetition on firm competitive behavior: An empirical examination. *Journal of Management*, 32(4), 507-530. doi:10.1177/0149206305284550
- Gnyawali, D. R., & Madhavan, R. (2001). Cooperative networks and competitive dynamics: A structural embeddedness perspective. *Academy of Management Review*, 26(3), 431-445.



- Gnyawali, D. R., & Park, R. (2011). Co-opetition between giants: Collaboration with competitors for technological innovation. *Research Policy*, 40(5), 650-663. doi:10.1016/j.respol.2011.01.009
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380. doi:10.1086/225469
- Gulati, R. (1998). Alliances and networks. *Strategic Management Journal*, 19(4), 293-317. doi:10.1002/(sici)1097-0266(199804)19:4<293::aid-smj982>3.o.co;2-m
- Gulati, R., Nohria, N., & Zaheer, A. (2000). Strategic networks. *Strategic Management Journal*, 21(3), 203-215. doi:10.1002/(sici)1097-0266(200003)21:3<203::aid-smj102>3.o.co;2-k
- Hagberg-Andersson, Å. (2006). Does adaptation pay off? *Industrial Marketing Management*, 35(2), 202-209. doi:10.1016/j.indmarman.2005.02.004
- Hamel, G. (1991). Competition for competence and interpartner learning within international strategic alliances. *Strategic Management Journal*, 12(1), 83-103. doi:10.1002/smj.4250120908
- Hamel, G., & Prahalad, C. K. (1989). Strategic intent. *Harvard Business Review*, 67(3). Retrieved from <https://hbr.org/>
- Hamel, G., & Prahalad, C. K. (1994). Competing for the future. *Harvard Business Review*, 72(2). Retrieved from <https://hbr.org/>
- Hung, S.-W., & Chang, C.-C. (2012). A co-opetition perspective of technology alliance governance modes. *Technology Analysis & Strategic Management*, 24(7), 679-696. doi:10.1080/09537325.2012.705120
- Hunt, S., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of Marketing*, 59(2), 1-15. doi:10.2307/1252069
- Jarillo, J. C. (1998). On strategic networks. *Strategic Management Journal*, 9(1), 31-41. doi:10.1002/smj.4250090104
- Jarillo, J. C. (1993). *Strategical networks: Creating the borderless organization*. Oxford, UK: Butterworth & Heinemann.
- Jarzabkowski, P. (2003). Strategic practices: An activity theory perspective on continuity and change. *Journal of Management Studies*, 40(1), 23-55. doi:10.1111/1467-6486.t01-1-00003
- Kanter, R. M. (1994). Collaborative advantage: The art of alliances. *Harvard Business Review*, 72(4). Retrieved from <https://hbr.org/>
- Khanna, T., Gulati, R., & Nahria, N. (1998). The dynamics of learning alliances: Competition, cooperation and relative scope. *Strategic Management Journal*, 19(3), 193-210. doi:10.1002/(sici)1097-0266(199803)19:3<193::aid-smj949>3.o.co;2-c
- Luo, Y. (2005). Toward cooptition within a multinational enterprise: A perspective from foreign subsidiaries. *Journal of World Business*, 40(1), 71-90. doi:10.1016/j.jwb.2004.10.006
- Luo, Y. (2007). A cooptition perspective of global competition. *Journal of World Business*, 42(2), 129-144. doi:10.1016/j.jwb.2006.08.007
- Luo, X., Slotegraaf, R. J., & Pan, X. (2006). Cross-functional "cooptition": The simultaneous role of cooperation and competition within firms. *Journal of Marketing*, 70(2), 67-80. doi:10.1509/jmkg.70.2.67
- M'Chirgui, Z. (2005). The economics of the smart card industry: Towards cooptitive strategies. *Economic Innovation New Technology*, 14(6), 455-477. doi:10.1080/1043859042000304070
- Mendoza, M. (2014). Samsung begins production of A9 chip for Apple iPhone 7. *Tech Times*. Retrieved from <http://www.techtimes.com/articles/22142/20141215/samsung-begins-production-of-a9-chip-for-apple-iphone-7.htm>.
- Muijs, D., & Romyantseva, N. (2014). Cooptition in education: Collaborating in a competitive environment. *Journal of Educational Change*, 15(1), 1-18. doi:10.1007/s10833-013-9223-8
- Muijs, D., Ainscow, M., Chapman, C., & West, M. (2011). *Collaboration and Networking in education*. Dordrecht, Netherlands: Springer.
- Nash, J. (1950). The bargaining problem. *Econometrica*, 18(2), 155-162. doi:10.2307/1907266
- Okura, M. (2007). Cooptitive strategies of Japanese insurance firms: A game-theory approach. *International Studies of Management & Organisation*, 37(2), 53-69. doi:10.2753/IMO0020-8825370203
- Osarenkhoe, A. (2010). A study of inter-firm dynamics between competition and cooperation – A cooptition strategy. *Journal of Database Marketing & Customer Strategy Management*, 17(3), 201-221. doi:10.1057/dbm.2010.23
- Padula, G., & Dagnino, G. B. (2007). Untangling the rise of cooptition: The intrusion of competition in a cooperative game structure. *International Studies of Management & Organization*, 37(2), 32-52.
- Park, B.-J., Srivastava, M. K., & Gnyawali, D. R. (2014). Impact of cooptition in the alliance portfolio and cooptition experience on firm innovation. *Technology Analysis & Strategic Management*, 26(8), 893-907. doi:10.1080/09537325.2014.913016
- Pittaway, L., Robertson, M., Munir, K., Denyer, D., & Neely, A. (2004). Networking and innovation: A systematic review of the evidence. *International Journal of Management Reviews*, 5-6(3-4), 137-168. doi:10.1111/j.1460-8545.2004.00101.x
- Porter, M. (1980). *Competitive strategy*. New York, USA: Free Press.
- Porter, M. (1985). *Competitive advantage*. New York, USA: Free Press.
- Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3). Retrieved from <https://hbr.org/>
- Provan, K. G., & Kenis, P. (2007). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, 18(2), 229-252. doi:10.1093/jopart/mum015
- Ritala, P., & Hurmelinna-Laukkanen, P. (2009). What's in it for me? Creating and appropriating value in innovation-related cooptition. *Technovation*, 29(12), 819-828. doi:10.1016/j.technovation.2009.07.002
- Ritala, P., & Weggman, A. (2011). Cooptition in the global book industry: The case of Amazon.com's evolution. In: 21st Nordic workshop on interorganizational research. Vaasa, Finland, August 15-17.
- Roy, P., & Yami, S. (2009). Managing strategic innovation through cooptition. *International Journal of Entrepreneurship and Small Business*, 8(1), 61-73. doi:10.1504/IJESB.2009.024105
- Sjogren, J., & Fay, J. (2002). Cost issues in online learning: Using "cooptition" to advantage. *Change: The Magazine of Higher Learning*, 34(3), 53-57. doi:10.1080/00091380209601856
- Snider, M. (Dec. 2014). Sony's cloud video game service coming to Samsung TVs. *USA Today* Retrieved from <http://www.usatoday.com/story/tech/gaming/2014/12/24/sony-playstation-now-samsung-tvs/20852691/>.
- Stake, R. (1998). Case studies. In: Denzin, N., & Lincoln, Y. (Eds). *Strategies of qualitative inquiry*. Thousand Oaks, London, New Delhi: Sage.
- Stone, B. (2014). *A loja de tudo: Jeff Bezos e a era da Amazon*. Rio de Janeiro, RJ: Intrínseca.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, USA: Sage.



Tiessen, J. H., & Linton, J. D. (2000). The JV dilemma: Cooperating and competing in joint ventures. *Canadian Journal of Administrative Sciences*, 17(3), 203-215. doi:10.1111/j.1936-4490.2000.tb00221.x

Walley, K. (2007). Coopetition: An introduction to the subject and an agenda for research. *International Studies of Management & Organization*, 37(2), 11-31. doi:10.2753/IMO0020-8825370201

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180. doi:10.1002/smj.4250050207

Williamson, O. (1985). *The economics of institutions of capitalism: Firms, markets, relational contracting*. New York, USA: Free Press.

Yami, S., & Le Roy, F. (2010). *Stratégies de coopération: Rivaliser et coopérer simultanément*. Bruxelles, Belgium: De Boeck.