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THE INSTITUTIONAL APPROACH ON COOPETITION

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THE INSTITUTIONAL APPROACH ON COOPETITION

Tese apresentada como requisito para obtenção do título de Doutor em Administração, pelo Programa de Pós-Graduação em Administração da Universidade do Vale do Rio dos Sinos – UNISINOS.

Orientador: Prof. Dr. Ivan Garrido

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*What we know is a drop,
what we don't know is an ocean.*

Isaac Newton

RESUMO

A coopetição é uma estratégia de relacionamento multifacetada, multinível e paradoxal entre firmas (LUO, 2004; CHEN, 2008; GNYAWALI; PARK, 2009). Apesar do número significativo de estudos relacionados com o conceito, a coopetição é ainda considerada como um conceito em andamento. Os estudos se limitaram em explorar uma série de firmas, principalmente pequenas e médias empresas (PMEs), embora a coopetição possa criar benefícios relevantes para essas firmas (BOUNCKEN et al., 2015). A coopetição deve ser analisada a partir de uma perspectiva multidimensional, considerando a influência de arranjos institucionais em estratégias de competição, cooperação e coopetição entre firmas. Além disso, há um aumento da pressão competitiva. As empresas buscam a coopetição para alcançar um posicionamento no mercado internacional (FESTA et al., 2017). Minha tese foca-se na lacuna que associa coopetição, instituições formais e desempenho internacional, uma vez que os estudos sobre esses construtos são raros e inconclusivos. Desse modo, minha tese objetiva enfatizar como a coopetição influencia a performance na internacionalização de firmas de mercados emergentes considerando o papel da coopetição. Apesar de essa pesquisa focar em diferentes indústrias, as firmas competem e cooperam em uma mesma indústria, caracterizando a coopetição. Conectando os campos teóricos e empíricos, a questão de pesquisa é: “Qual é a relação entre instituições formais e desempenho internacional das firmas de uma economia emergente considerando o papel da coopetição?”. Esta pesquisa está dividida em duas fases: uma etapa qualitativa e uma quantitativa. A etapa qualitativa é exploratório-descritiva. Foi baseada em 21 entrevistas realizadas com representantes de firmas e instituições formais e com pesquisadores acadêmicos para estabelecer um estudo de caso sobre o contexto. A etapa quantitativa foi realizada com a pesquisa com firmas das indústrias de calçado, vinho e tecnologia da informação, resultando em 166 respostas válidas. A técnica de análise aplicada foi a análise de regressão. As principais contribuições deste estudo são duplas. A primeira contribuição é enfatizar o papel das instituições formais na discussão sobre coopetição. A segunda está relacionada com a pesquisa sobre coopetição associada com a performance na internacionalização de firmas. Poucos estudos lidam com a performance das firmas e geralmente focam-se no desempenho de inovação (GNYAWALI; PARK, 2009; GNYAWALI et al., 2008). Como resultado, é apresentado um quadro que sustenta o conceito de abordagem institucional. Além disso, os resultados mostraram uma relação direta entre instituições formais e desempenho internacional mediada pela coopetição. As limitações deste estudo baseiam-se no fato de a investigação ter ocorrido em um único país. Ao final deste estudo, outros caminhos de investigação surgiram. Em primeiro lugar, esta pesquisa focou-se no nível entre firmas, desconsiderando os níveis individuais, intrafirmas e de rede. Segundo, a coopetição como contexto poderia analisar cadeias de agentes que adicionam valor às firmas (BRANDENBURGER; NALEBUFF, 1995).

Palavras-chave: coopetição; instituições formais; desempenho internacional; PMEs em economias emergentes.

ABSTRACT

Coopetition is a multifaceted, multilevel, and paradoxical strategy of relationship between firms (LUO, 2004; CHEN, 2008; GNYAWALI; PARK, 2009). Despite the significant number of studies related to the concept, coopetition is still considered as a concept in progress. Studies have been limited in exploring a variety of firms, mainly small and medium enterprises (SMEs), although coopetition can generate relevant benefits for these firms (BOUNCKEN et al., 2015). Coopetition must be analyzed from a multi-dimensional view, considering the influence of institutional arrangements on competition, cooperation, and coopetition strategies between firms. Moreover, there is an increased competitive pressure. Firms search for coopetition to gain positioning in international markets (FESTA et al., 2017). My thesis focus on the gap that associates coopetition, formal institutions, and international performance because there are rare and inconclusive studies about these constructs. Thus, this thesis aims to highlight the relationship between formal institutions and international performance of firms from an emerging economy taking into account the role of the coopetition. Although this research focuses on different industries, they compete and cooperate in the same industry, characterizing coopetition. While connecting theoretical and empirical topics, the research question is the following: what is the relationship between formal institutions and international performance of firms from an emerging economy taking into account the role of the coopetition? This research is divided into two stages: a qualitative and a quantitative step. The qualitative stage is exploratory-descriptive. It was based on 21 interviews realized with representatives from firms and formal institutions and academic researchers to establish a case study about the context. The quantitative stage was carried out with the survey with firms from footwear, winery, and information technology industries, resulting in 166 valid responses. The analysis technique applied was regression analysis. The main contributions of this study are twofold. The first contribution is to stress the role of formal institutions in the discussion about coopetition. The second contribution is related to the research about coopetition associated with the performance in the internationalization of firms. Few studies deal with firm performance and usually focus on the innovation performance (GNYAWALI; PARK, 2009; GNYAWALI et al., 2008). As a result, a framework supporting the concept of Institutional Approach is presented. Also, results showed a direct relationship between formal institutions and international performance mediated by coopetition. Limitations of this study are based on the investigation to have occurred in a single country. At the end of this study, other avenues of the investigation appeared. First, this research focused on the inter-firm level, disregarding individual, intra-firm and network levels. Second, coopetition as context could analyze chains of agents that add value to the firms (BRANDENBURGER; NALEBUFF, 1995).

Keywords: coopetition; formal institutions; international performance; SMEs in emerging economies.

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1 INTRODUCTION

In a dynamic and complex business world, firms increasingly engage in a simultaneous pursuit of cooperation and competition – called *coopetition* – to deal with uncertainties driven by rising levels of global competition, the emergence of new markets, and rapid technological changes (BENGTSSON et al., 2010; BENGTSSON; KOCK, 2000; PARK et al., 2014a; DEITZ et al., 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). It is the duality of two contradicting interaction that has contributed to the definition of *coopetition* as a paradoxical relationship (BENGTSSON; KOCK, 2014). In this sense, the paradox is an alternative, apparently contradictory but interrelated that can exist simultaneously over time (SMITH; LEWIS, 2011). Apple and Google in 2007, for example, worked together with the first iPhone. However, almost one year after its market launch, Google introduced Android, starting the competition in this relationship that initially was cooperative (TIDSTRÖM; RAJALA, 2016). *Coopetition* is a prominent research topic in the strategies of relationships between firms that generates a wide interest among researchers since the second half of the 1990s (DORN et al., 2016; CZAKON; ROGALSKI, 2014), but that shares a divergent use of definitions (BENGTSSON; KOCK, 2014), lack of generalizability, and a limited analysis of context (BOUNCKEN et al., 2015), since it is a concept still being developed. In this sense, it is recognized as a multifaceted, multilevel and paradoxical phenomenon (LUO, 2004; CHEN, 2008; RAZA-ULLAH et al., 2014; GNYAWALI; PARK, 2009) and it has received increasing attention in research and practice (GAST et al., 2015).

Despite the significant number of studies related to the concept, *coopetition* is still considered as a concept in progress. Studies have been limited in exploring a variety of firms, mainly small and medium enterprises (SMEs), startups, or family business, although *coopetition* can generate relevant benefits for these firms (BOUNCKEN et al., 2015; HUANG; CHU, 2015; KOSSYVA et al., 2014). Due to their characteristics, SMEs, for example, are usually limited in resources and market presence (MORRIS et al., 2007) combining their complementary strengths to create synergies (KOSSYVA et al., 2014). Consequently, *coopetition* for these firms can improve resources, strategic positioning and their entry in new or foreign markets (BOUNCKEN et al., 2015). Thus, *coopeting* firms create economies of scale, mitigate risks and leverage resources together (MORRIS et al.,

2007) through high market commonality and resource similarity (CHEN, 1996). In these cases, there is a necessity to consider the owners and the managers, generally, are the same person. Moreover, they are responsible for the strategies and inter-organizational relationships as coopetition (GRANATA et al., 2016). Studies on coopetition have addressed large companies (BENGTSSON; KOCK, 2012; BENGTSSON; KOCK, 2014), but it is relevant to analyze SMEs, given the importance of these firms for the networks (GNYAWALI; PARK, 2009) as well as coopetition in clusters (DANA et al., 2013). In the case of SMEs, networks can stimulate coopetition because they include direct competitors or existing collaborators may become competitors over time. Consequently, firms need to orchestrate their network of relationships and leverage resources can create and extract value from the network (DHANARAJ; PARKHE, 2006). Empirically, the prevalence of coopetition is visible in business networks and strategic alliances (e.g., seven U.S. healthcare insurers that are competitors founded MedUnite to reduce costs and develop a new system), which own businesses with collaborative cultures, complementary skills, convergent objectives, and measurable risks.

Coopetition must be analyzed from a multi-dimensional view, considering the influence of institutional arrangements on competition, cooperation, and coopetition strategies between firms. Thus, it takes into account the influence of the coopetition as promoted by the institutions, creating barriers or facilitating the interaction between firms. Also, it is necessary to examine the different roles and effects that institutions might have on several levels of coopetition (DORN et al., 2016). Interestingly, few studies have addressed coopetition from the perspective of the institutional environment, e.g., studies on the consortium of Italian operas (MARIANI, 2007), theme parks in Finland and Italy (KYLÄNEN; MARIANI, 2012), and the European wireless telecommunications sector (NEMEH; YAMI, 2016). This fact might be justified as most studies are still focusing on developed countries that enjoy stronger institutions, unlike emerging countries involved with unstable institutions (CUERVO-CAZURRA; GENC, 2008), marked by inefficient legal and regulatory systems, arbitrary government policies, and inadequate infrastructure (MESQUITA; LAZZARINI, 2008; HOSKISSON et al., 2000). In this thesis, the objective is to study the influence of the formal institutions because it is more significant in emerging economies than developed economies because the rules are subject to change (PENG, 2002).

Moreover, rarely international business has been viewed through cooperative relations. In a world with markets that are becoming more interdependent and competitive, it is urgent to further the research associating coopetition and international business, because this

relationship influences the export activities of SMEs (HOLMLUND; KOCK, 1998; FORSMAN et al., 2010; KOCK et al., 2010) or might have access to resources, such as knowledge, expertise and mutual goals (LUO, 2004). Considering an increased competitive pressure, firms search for cooptation to gain positioning in international markets (FESTA et al., 2017). This strategy is exposed among multinational enterprises (MNEs) and host governments (LUO, 2004), sub-units of MNEs (LUO, 2005), and global rivals (LUO, 2007; GNYAWALI; PARK, 2011). Thus, few studies evaluate the effects of cooptation and international business between firms (GALDEÁNO-GÓMEZ et al., 2016).

The extensive literature provides rich but inconclusive evidence regarding how cooptation affects the firm performance (RITALA, 2012). There are some empirical studies examining the effect of cooptation on firm performance while measuring only one financial indicator (KIM; PARKHE, 2009; LUO et al., 2006) or value creation in inter-firm alliances measurement (RAI, 2013), instead of considering the multidimensional concept of performance (PENG et al., 2011). However, most studies are directed to the firm's innovation performance (PARK et al., 2014a; PARK et al., 2014b; WU, 2014; RITALA, 2012), whenever it is necessary to understand the key factors influencing the cooptation performance (RITALA, 2012).

In this thesis, the aim is to study firms that cooperate in a particular area and compete in another area – this is called cooptation. These firms are in the same industry and manifest cooptation strategies in their home country in the internationalization process with the influence of formal institutions. My thesis focus on the gap that associates cooptation, formal institutions, and international performance because there are rare and inconclusive studies about these constructs. Most studies on the outcome of cooptation test the relationship between a cooptation strategy and an innovation outcome. These studies have found mixed results indicating that there is a gap in our knowledge and a lack of consensus as to measure the results of the cooptation (JAKOBSEN; STEINMO, 2016), disregarding the effects over international performance. Under these circumstances, formal institutions can provide firms with the support that is essential to their competitiveness, but they have not been included in studies about cooptation. Institutions can increase the competitiveness of firms by developing learning and relationship networks, reducing transaction costs and promoting the internationalization of firms. Institutions play a predominant role in promoting or facilitating networks, stimulating cooptation strategies (BRITO, 2001). Institutions also can create barriers to new entrants or provide the identification and complementarity of resources between firms (DELIGONUL et al., 2013). Furthermore, cooptation is rarely addressed in

emerging economies (PENG; BOURNE, 2009) reinforcing that coopetition is a research field is still in its infancy (GAST et al., 2015). Therefore, it is necessary to develop studies across multiple levels, considering the multidimensional concept of the coopetition, aiming to create an integrated picture of coopetition research (DORN et al., 2016) that include the role of the institutions.

The purpose is to analyze how coopetition is related to formal institutions and international performance in an emerging economy. Although this research focuses on different industries, they compete and cooperate in the same industry, characterizing coopetition. While connecting theoretical and empirical topics, the research question is the following: what is the relationship between formal institutions and international performance of firms from an emerging economy taking into account the role of the coopetition? Given the above, this thesis aims to highlight how formal institutions influences the performance in the internationalization of firms from emerging economies taking into account the role of coopetition. The formulation of the research question and the main objective leads to the secondary objectives: i) to understand the relationship between formal institutions and international performance; ii) to analyze if and how coopetition influence the relationship between formal institutions and international performance; iii) to develop a model encompassing formal institutions, international performance, and coopetition; iv) to evaluate qualitatively and quantitatively the relationships proposed in the model.

The main contributions of this study are twofold. The first contribution is to stress the role of formal institutions in the discussion about coopetition, mainly because this research was made in a multi-industry from an emerging economy. The vast majority of coopetition studies describes and analyzes coopetition from the firm or relationship perspective, while networks remain rather unexplored (GOLNAM et al., 2014). At this point, with rare exceptions (e.g., MARIANI, 2007), the institutional environment has not been regarded in coopetition studies, including in emerging economies. This study aims to understand the adherence to formal institutions by firms, more specifically in the internationalization project each industry. Consequently, this research analyzes the influence of the formal institutions in the international performance of the firms. The second contribution is related to the research about coopetition associated with the performance in the internationalization of firms. Few studies deal with firm performance and usually focus on the innovation performance (e.g., GNYAWALI; PARK, 2009; GNYAWALI et al., 2008). Research on international performance of firms based on coopetition has not been carried out so far. Therefore, there is still the need to examine not only whether coopetition matters for internationalization but also

how it matters. Therefore, this study differs from previous research, because it looks beyond the coepetition strategy in an attempt to fill these research gaps, measuring the international performance of firms that use coepetitive strategies through adherence to formal institutions.

To achieve these research goals, the concepts, drivers, typologies, dynamics, and consequences that support coepetition are addressed. Next, are described the theoretical foundations associating, on the one hand, institutions in emerging economies and, on the other, performance in the internationalization of firms. Later, coepetition in the performance in the internationalization of firms is discussed, considering the institutional framework for the emerging economies. This topic is called Institutional Approach on Coepetition. Then, it evolved into a proposed framework discussing how coepetition influences the internationalization of the firms, without taking into account the effect on performance. Hypotheses are developed about the influence of coepetition on the performance in the internationalization of firms considering the institutional context. Lastly, the method to be applied is introduced, dividing it in qualifying, exploratory, and descriptive stages of research.

2 LITERATURE REVIEW

Before coopetition becomes a relevant business strategy, competition and cooperation were 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 companies being influenced by economic theories. In the second half of the 1980s, some researchers began to study cooperation between firms, while the first attempts to focus on the interaction between cooperation and competition strategies occurred in the 1990s. Cooperation and coopetition strategies complement the competitive paradigm, generating new forms of intra-organizational governance and expanding the alternatives for inter-organizational groupings (BRANDENBURGER; NALEBUFF, 1995; PADULA; DAGNINO, 2007). Nevertheless, the dichotomy between competition and cooperation is no more suitable to understand inter-organizational relationships (YAMI; LE ROY, 2010).

Coopetition, the first topic of this thesis, is studied by several theoretical views, such as game theory, transaction cost theory (TCT), and resource-based view (RBV) (LADO et al., 1997; QUINTANA-GARCÍA; BENAVIDES-VELASCO, 2004). Moreover, networks (GNYAWALI; PARK, 2009; BENGTSSON; KOCK, 2014). From the game theory perspective, researchers analyze coopetition as a win-win game, discussing the balance between value creation (aiming at common benefits) and value appropriation (aiming at private benefits). Thus, the participants act creating value for all participants (BRANDENBURGER; NALEBUFF, 1996; GNYAWALI et al., 2008; RITALA; TIDSTRÖM, 2014). Few studies have used TCT exclusively to analyze coopetition, which focuses on an extremely risky business since competitors have individual business incentives that might lead to opportunistic behavior bounded rationality and a limited selection of partners (QUINTANA-GARCÍA; BENAVIDES-VELASCO, 2004; ERIKSSON, 2008; WILLIAMSON, 1991). The main sources of transaction costs creation are asset specificity, uncertainty, and complexity of the environment, limited access to information, and continuity of transaction and bureaucratic costs (JONES; HILL, 1988). RBV has been used mainly to mobilize resources and technologies as resources that can become the basis for creating a competitive advantage (LADO et al., 1997; QUINTANA-GARCÍA; BENAVIDES-VELASCO, 2004). This group of researchers emphasizes the importance of the characteristics and positions of networks. Networks are the basis to develop competitive advantages explaining how to access and extend knowledge and resources outside the firm through coopetitive relationships (BENGTSSON; KOCK, 1999; 2000; GNYAWALI; MADHAVAN,

2001; RUSKO, 2014). Understanding that coopetition is a complex phenomenon, several theoretical frameworks have been proposed to analyze multiple levels of drivers (GNYAWALI; PARK, 2009), as qualitative and quantitative empirical studies have made (CZAKON et al., 2014).

The next section introduces several topics related to coopetition. First, it is described the concepts, dynamics, and typologies. Afterwards, it is approached the drivers and consequences of coopetition between firms.

2.1 Coopetition

Coopetition is still a concept in development, and it has not achieved the status of a paradigm as competition and cooperation have reached (PADULA; DAGNINO, 2007; BENGTSSON et al., 2010). The neologism created from the combination of the words cooperation and competition was first mentioned in the literature by Cherington (1913), who reproduced the discourse of Kirk S. Pickett (1911) – an oyster manufacturer of Sealshipt Oyster System: Pickett referred to the relationship network with 35.000 oysters' dealers as such: "you are only one of several dealers selling our oysters in your city. However, you are not in competition with one another. You are co-operating with one another to develop more business for each of you. You are in co-opetition, not in competition" (CHERINGTON, 1976). R. Hunt published the idea again in Los Angeles Times in 1937, but it did not receive notoriety (YAMI et al., 2010). However, only decades later, the term became popular, once again through managerial practices.

From a managerial point of view, the origin of the term coopetition is credited to Ray Noords, founder, and CEO of Novell, who mentioned it for the first time in the 1980s in this sentence: "You have to be able to compete and cooperate at the same time," while describing markets and firms' configurations that must compete and cooperate with each other simultaneously more and more (BENGTSSON; KOCK, 2000; PADULA; DAGNINO, 2007). In the following decade, coopetition was appropriated by the academia and became the object of theoretical studies, starting with the book *Co-opetition*, by Brandenburger and Nalebuff (1996), who used the game theory as a theoretical support to validate the purpose "Sleeping with the enemy" – learning to work with their rivals (COY, 2006).

Coopetition is analyzed by two approaches: as a context and as a process (BENGTSSON et al., 2010). In a context, coopetition is either broadly presented in a chain that adds value to the firm through environmental interaction (BRANDENBURGER;

NALEBUFF, 1996; LADO et al., 1997). This chain refers to customers, suppliers, substitutes, and complementors called "The Value Net." In this relationship, co-opetition occurs between the firm and these parts, in any direction, based on the game theory (NASH, 1950). In this case, we can draw an analogy to the market with a pie. The players cooperate to grow up the market by creating value and developing market as if they were to bake a pie. Then, competing to capture value in the market, that is, getting the largest piece the bake (BRANDENBURGER; NALEBUFF, 1996; GNYAWALI et al., 2006). The interaction of competitive and cooperative strategies will create a syncretic rent or higher overall rent for a firm (LADO et al., 1997). Cooperative movements permit to enlarge the market size while competitive movements to increase market share (NGO; OKURA, 2008). In these terms, co-opetition is a relationship strategy where the partners – mainly suppliers, firms, and customers – aim to increase the value of their businesses to overcome individual results that could be obtained. The crucial point is how to divide the results that the firms obtained through co-opetitive strategies.

On the other hand, as a process, co-opetition involves strategies of competition and cooperation simultaneously between competing firms, in different areas and levels of interaction (BENGTSSON; KOCK, 1999, 2000). The process, in this case, is defined as the progression of change that delineates the balance and strength between cooperative and competitive interactions (DAHL, 2014), occurring in isolation in one or two separate continua (PADULA; DAGNINO, 2007). One continuum ranges from complete competition to complete cooperation with different degrees of co-opetitive relations. The stronger the cooperation is, the weaker the competition is, and vice-versa (BENGTSSON; KOCK, 2000). Two-continuum approaches suggest that different levels of cooperation and competition can co-exist, in parallel within a co-opetitive relationship, based on a multifaceted concept (DOWLING et al., 1996; BENGTSSON et al., 2010). The conception of co-opetition as a process basically considers movements of cooperation and competition simultaneously between firms, but in different areas. When it comes to co-opetition as a context, the interactions occur at different levels of the chain such suppliers and customers; co-opetition as a process occurs in different areas such as marketing, production, international business, and R&D.

Some authors also have attempted to conciliate both approaches through an integrative definition considering co-opetition as a dynamic and strategic process, in which economic agents create value through cooperative interaction, while they simultaneously capture part of this value through competitive interaction (BOUNCKEN et al., 2015). Combining

cooperation and competition and, consequently, their advantages and risks are paradoxical (CHEN, 2008). This relationship is also dynamic due to goals, roles, and market conditions continuously evolving (LUO, 2007; HUNG; CHANG, 2012). In these terms, next section presents the dynamics and typologies of coepetition.

2.1.1 Dynamics and Typologies of Coepetition

As mentioned above, coepetition follows two approaches: as a context or as a process. In this thesis, the unity of analysis was studied based on competition as a process. For the first purpose, more general concept, coepetition includes all the relations developed between complementary organizations (PELLEGRIN-BOUCHER et al., 2013). It is based on the firms' capacity to create and appropriate value collaboratively, capturing the larger proportion of the value individually (GNYAWALI; PARK, 2011). The Value Network (Figure 1) explores all the inter-dependencies in this context. In Value Network, to change the interaction among players, it is necessary to change one or more of these elements (PARTS): i) players; ii) added values; iii) rules; iv) tactics; and v) scope.

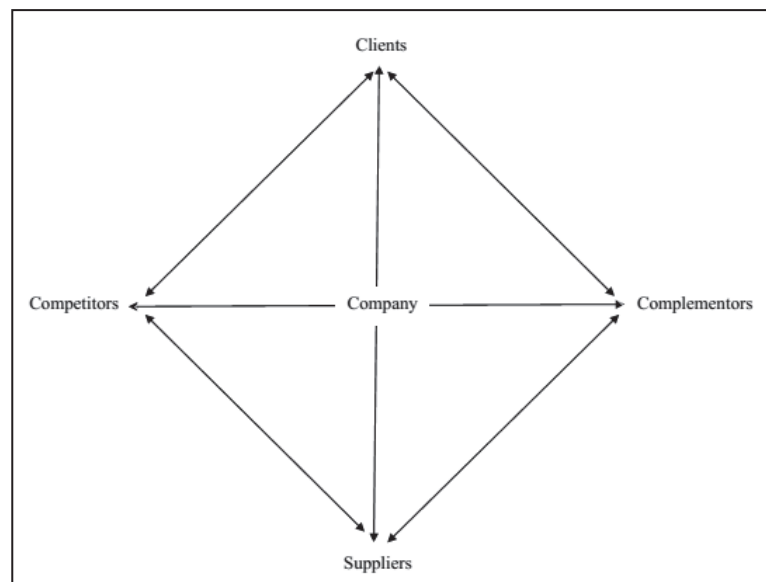


Figure 1: Value network.

Source: Adapted from Brandenburger and Nalebuff (1995).

Initially, as a process of interaction between competition and cooperation in firms, coepetition was divided into three forms: i) when cooperation dominates; ii) when competition dominates; iii) when cooperation and competition play equal roles (BENGTSSON; KOCK, 1999; 2000). However, with the evolution of the relational concept

of the cooperation, several dimensions were considered varying according to the types of established strategies (BENGTSSON et al., 2010). Coopetition is not an entirely dichotomic construct that can be located on a continuum between cooperation and competition (PADULA; DAGNINO, 2007). Companies assume dynamic combinations that aim to balance competition and cooperation, according to the environment in which they operate (Figure 2).

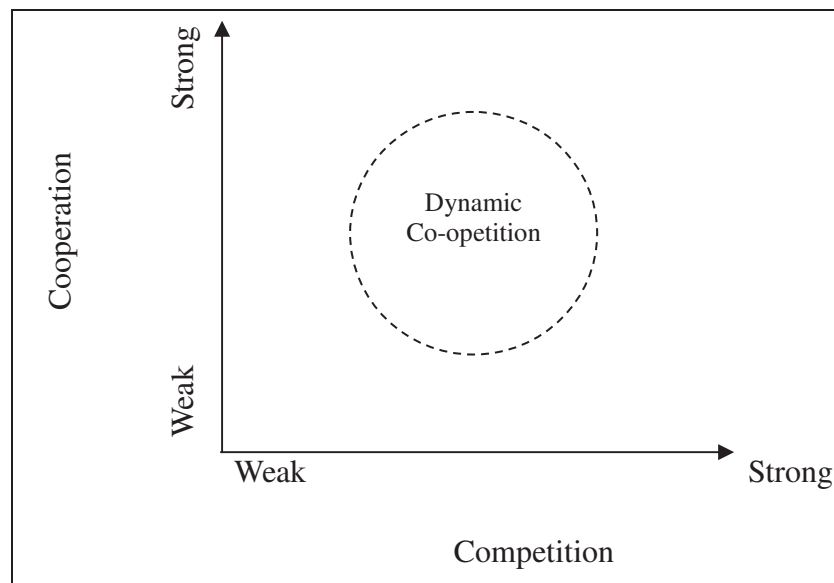


Figure 2: Cooperation as two continua.
Source: Bengtsson et al. (2010).

Changes in the environment can weaken firms or stimulate divergent behaviors and responses to the firm's strategy affecting a cooperative strategy (PADULA; DAGNINO, 2007). Coopetition can be maximized by market commonality and resource asymmetry between firms. Market commonality is relevant more to competition whereas resource asymmetry is relevant more to cooperation (HUNG; CHANG, 2012).

Due to combinations of cooperative and competitive strategies, usually, the studies have distinguished between dyadic competition and network competition. While the dyadic competition is based on two firms, network competition refers to a group of more than two firms tied to each other where decisions on resources, collaboration, expectations, negotiations, and agreements are made collectively and long-term based (TOMSKI, 2011). On an intra-industry level, strategic alliances are collaborative projects between rival firms operating in the same industry where the firms keep their autonomy. That is, this definition excludes mergers, acquisitions, and vertical partnerships, such as buyers and suppliers (DUSSAUGE; GARRETE, 1997). Many studies have examined cooperation at a network level (GNYAWALI et al., 2008), but this approach is still incomplete because the definition

of the network remains fuzzy (CHIAMBARETTO; DUMEZ, 2016). Although there are several studies on coopetition, such as strategic alliances (DUSSAUGE; GARRETE 1997; DUSSAUGE et al., 2000; FAEMS et al., 2010), multilateral alliances (CHIAMBARETTO; DUMEZ, 2016), collective strategies (ROY; YAMI, 2009), competitive strategies (LADO et al., 1997), supply-chain relations (CATALDO et al., 2000; LACOSTE, 2014; ARTHANARI et al., 2015), networks (BENGTSSON; KOCK, 2000; TIDSTRÖM, 2009), strategic management (PADULA; DAGNINO, 2007; RUSKO, 2010), there is a genuine lack of research on the typologies of coopetition (WALLEY, 2007; CHIAMBARETTO; DUMEZ; 2016).

Other typologies were presented by Lado et al. (1997) and Bengtsson and Kock (1999). The first authors have suggested a business model divided into rent-seeking behavior, that is, the search for resources and capabilities to firms create and capture value in their market. Their framework is divided into: a) collaborative rent-seeking behavior; b) syncretic rent-seeking behavior; c) monopolistic rent-seeking behavior, and d) competitive rent-seeking behavior. Bengtsson and Kock (1999) divide their framework in a similar fashion: a) cooperation; b) coopetition; c) coexistence; and d) competition.

Chin et al. (2008) developed a model that detects the relationships, according to the level of interaction between their agents (Figure 3). The model presents four typologies resulting from the interaction and intensity of the competition and cooperation existing between the firms. The first quadrant presents the prevalence of competitive relationships, mainly based on oligopolies characterized by the high level of competition, industry deregulation, and sophisticated customer demand. The second situation consists of players that do not interact significantly with other rivals while maintaining low levels of competition and cooperation simultaneously. They are firms with a limited scope of products or markets that sustain a competitive position, by using regulatory, technological, and financial barriers to new entrants. The third quadrant shows the status of high cooperation and low competition, taking advantage of the synergies created by the agents. Moreover, the necessary conditions for this relationship to occur are the high complementarity of resources and skills and a low level of sharing of similar characteristics within the same market. Finally, the last quadrant contains the adaptive relationship where cooperation and competition interact so that participants reach their goals and improve their performance by reducing costs and risks, exploring skills and efficiency gain (LUO, 2005).

High Competition	Contender (High competition, Low cooperation)	Type 2	Adapter (High competition, High cooperation)	Type 4
Low	Monoplayer (Low competition, Low cooperation)	Type 1	Partner (Low competition, High cooperation)	Type 3
	Low	Cooperation		High

Figure 3: The model of different modes of cooperation.

Source: Chin et al. (2008).

Considering cooperation as the result of the mutual interactions between two or more business units, these units have been studied in different industries, such as: Swedish rack and pinion lining industries (BENGTSSON; KOCK, 1999), Swedish brewery industry (BENGTSSON; KOCK, 2000), Austrian grocery industry (KOTZAB; TELLER, 2003), management of Flemish seaports (SONG, 2003; SONG; CHEON; PIRE, 2015), global steel industry (GNYAWALI et al., 2006), Italian opera houses (MARIANI, 2007), Italian drinks and bottling companies (BONEL; ROCCO, 2007), Japanese insurance firms (OKURA, 2007), Finnish Mobile TV industry (RITALA; HURMELINNA-LAUKKANEN, 2009), screw-cap industry in USA and Australasia (CHOI et al., 2010), spatial development projects in The Netherlands (VAN BUUREN et al., 2010), European telecommunication (YAMI; NEMEH, 2014), German and Japanese automotive industries (WILHELM, 2011), Finnish and Italian theme parks (KYLÄNEN; MARIANI, 2012), global information and communications technology industry (PELLEGRIN-BOUCHER et al., 2013), New Zealand kiwifruit growers (ARTHANARI et al., 2015), and worldwide airline industry (CHIAMBARETTO; DUMEZ, 2016). This wide range of studies indicates that cooperation is a concept that can be applied across different countries, industries, and firms, and is a valid and effective tool for analysis among researchers. However, the main studies focus on Scandinavian countries, Austria, Germany, Italy, United States, and Japan (LECHNER; DOWLING, 2003), which are not validated in emerging economies. Therefore, it reinforces this path to be explored, considering the influence of institutions on cooperation strategies in the internationalization of firms from emerging economies.

Similarly, several methodological tools and concepts have been used to study cooperation. These are some examples: analytical and numerical tools (LÓPEZ-GOMEZ; MOLINA-MEYER, 2007); concept of ambidexterity as a critical dynamic capability to manage a balance between exploration and exploitation in a cooperation (FERNANDEZ et al., 2014); relationship between absorptive capacity and cooperation as a way to reap or share

knowledge (RITALA; HURMELINA-LAUKKANEN, 2013); and biological systems (QING; ZHANG, 2015). However, most of the previous studies have methodological limitations due to static approaches of cooepetition. Considering that cooepetition can be viewed a process, it is necessary to introduce dynamic and longitudinal approaches to provide new insights on cooepetition theory (CZAKON et al., 2014). Crisan (2013), for example, considers time and space in the cooepetitive relationships, and more recently have explored the tension in those relationships (GNYAWALI; PARK, 2011; BENGTSSON; KOCK, 2014; 2015; CHAMBARETTO; DUMEZ; 2016).

Coopetition is also seen in levels of individuals, firms, groups or industries (GNYAWALI et al., 2006); separated by activities or geographic boundaries; segmented into a dyad, inter-firm relationships, or inter-organizational networks (DAGNINO; PADULA, 2002; CRISAN, 2013). Depending on the number of actors that cooperate and compete simultaneously, coopetition could be dyadic (two players), triadic (three players), or multiple (more than three players). Based on the type of value chain, it could be vertical (players who are vertically adjacent to each other in the industry value chain) or horizontal (players are at the same stage in the industry value chain) (YAMI et al., 2010; ARTHANARI et al., 2015). In this case, most research has focused on vertical relationships among firms instead of focusing on horizontal relationships (GALVAGNO; GARRAFO, 2010). Another classification refers to an individual, intra-organizational, inter-organizational, or network levels (TIDSTRÖM; RAJALA, 2016). Most studies are concentrated in networks (CZAKON et al., 2014). The individual or focal level depends on the individual's identifications that influence their behavior and, consequently, affect the balance between creating and appropriating the value in the firm (GNYAWALI; PARK, 2011; NÄSHOLM; BENGTSSON, 2014). Intra-organizational perspective has been considered especially in the context of large firms with several subsidiaries and units. Inter-organizational perspective is based on coopeting firms on the same value chain and in the same industry (BENGTSSON; KOCK, 1999, 2000; LUO et al., 2007). On networks, studies have attempted to explain mainly the chain value or value network when firms cooperate to create a larger market and then compete to divide it up (BRADENBUERGER; NALEBUFF, 1996) in a cooperative network structure or between networks (GNYAWALI et al., 2006; PENG; BOURNE, 2009). It can also be divided into unintentional or emergent (there are several actors involved in the coopetition, and some of these actors have not noticed the coopetition) or intentional or deliberated (every actor is aware of their involvement with the coopetition) (RUSKO, 2014). However, most of the existing studies consider coopetition as a deliberated and emergent strategy, which means that

a deliberate strategy on the firm level may be influenced by emergent coopetition on other levels (DAHL et al., 2016; TIDSTRÖM; RAJALA, 2016).

The next section presents the drivers – or antecedents – of coopetition, aiming to establish a complete comprehension of this concept.

2.1.2 Drivers of Coopetition

Coopetition is based on the interdependence between firms, with the partial convergence of interests and goals through hybrid relationships. It is based on creating opportunities to generate competitive advantages, removing external obstacles and neutralizing threats (CHIN et al., 2008). In this case, the shared objectives prove to be more important than maximizing individual profits. Self-interests are overlapped and positively dependent on each other. This behavior generates a strategic interdependence among firms known as the cooperative system of value creation (DAGNINO; PADULA, 2002; PADULA; DAGNINO, 2007). Cooperative relationships are both based on trust altruism and reciprocity (KANTER, 1994). In general, the participants cooperate in distinct areas that they are competing (LUO, 2005) with firms collaborating to create value, while being distant from the clients, and they compete against each other near customers, aiming to appropriate the value that has been created (BENGTSSON; KOCK, 2000; WALLEY, 2007). However, it is necessary to clarify how firms create value and how appropriate this value between them (VOLSHENK et al., 2016).

The objectives of coopetition are to improve conditions such as size or market demand, by cooperating with rival companies, and to increase profits, by competing with rival companies (OKURA, 2007). Even if a single firm can gather all the resources needed for competition, it can still find it hard to access them alone. In this case, one alternative is to use cooperation to create value for parties that share knowledge and resources, while also competing to achieve the best results. This type of relationship involves economic and non-economic exchanges; in the cooperative link, power is evident across the value chain, and in the competitive link evidence of the strength and position of the actors in the network can also be observed (BENGTSSON; KOCK, 1999, 2000; BENGTSSON et al., 2010).

The cooperative relationship is due to maximizing the results achieved by targeting efforts in the same direction, transcribed by formal or tacit agreements. For the survival of cooperative relations, motivation, good faith, and strategic alignment of individuals; interdependence; same cultural composition; organizational arrangements; integration and

integrity between the parties are important (ZINELDIN, 2004). These agreements are based on a fragile equilibrium between players who have a common interest balanced by the power and dependency between the parts (PELLEGRIN-BOUCHER et al., 2013). Over-dependency will limit the strategic flexibility, mainly of SMEs, with larger firms forcing smaller ones to take more risks (SULEJ et al., 2001).

There are different drivers or causes for the coopetition between players. First, common strategic goals are an important antecedent for coopetition. The incentive for coopetition among firms is appropriate to deal with challenges that they could not face by themselves, such as sharing investments or risks associated with the business (CHOI et al., 2010). Therefore, a commitment is a key factor in conducting the confidence and enhancing an ongoing strategic business relationship (ZINELDIN, 2004), thus allowing a synergic behavior.

Second, considering that coopetition requires mutual benefits to establish the relationship, one partner should have certain skills or resources that the other partner needs (CHOI, 2005). The heterogeneity of resources can contribute to the formation of coooperative relationships because unique and complementary resources can be attractive for coopetition (DUSSAUGE et al., 2000). Due to the intra-industry complementarities, coopetition allows firms to access complementary resources from external partners (BENGTSSON; KOCK, 1999; 2000; GNYWALI et al., 2006; 2008). Therefore, firms must trust each other, by sharing information and knowledge, but not ignoring that they are still rivals. In short, both players must negotiate part of their knowledge with the other player, while buying and selling to compete eventually. It means having a strategy that allows to "share without (really) sharing" (BAUMARD, 2008).

Third, coooperators expect to reap collective results higher than the individual results (BRANDENBURGER; NALEBUFF, 1995) through the growth of the market size, creation of a new market, increased efficiency of resource utilization, or improving competitive position (RITALA, 2012). Other expected results are cost reduction, risks sharing, scale economies, acceleration of R&D activities, diversification of the portfolio of products or services, and maintenance of a high level of consumer satisfaction (ZINELDIN, 2004; LUO, 2007; GNYAWALI; PARK, 2009; 2011; RITALA; HURMELINNA-LAUKKANEN, 2009).

Last, coooperation can be motivated by network externalities in an industry (BENGTSSON; KOCK, 1999; 2000). Cooperating firms are integrated into a social structure that allows for inter-firm collaborations (PELLEGRIN-BOUCHER et al., 2013). Information and social exchange are key factors to initiate coooperation (BENGTSSON; KOCK, 2000).

Firms that occupy a more central and autonomous position in the network assume greater competitiveness among the other agents due to strategic flexibility. Firms with a greater diversity of markets are more likely to get results from its centrality and its cooperative relationship (GNYAWALI et al., 2006). In this relationship, three types of resources circulate reputation, information, and assets, which are optimized following the firm's position (GNYAWALI; MADHAVAN, 2001). In these terms, network externalities may increase the value creation potential when the firms are participating in the cooperation share knowledge. However, not all industries will generate these positive results, mainly low-tech industries, with less innovative potential (RITALA; HURMELINA-LAUKKANEN, 2009).

More recently, Dorn et al. (2016) classified different levels of cooperation according to specific characteristics, based on antecedents in the relationships of the firms (Table 1). This analysis to promote a classification of the cooperation considering several concepts showed in this thesis. Moreover, the antecedents and concepts are divided according to the level of relationship between firms. In these terms, a phase model does not compromise to integrate the different levels of analysis (DORN et al., 2016).

Table 1: Phase model of cooperation research

Level	Antecedents	Initiation phase	Managing & shaping phase	Evaluation phase
Inter-firm level	Market conditions Dyadic factors between potential partner firms Individual factor of the firms	Formal and informal agreements Assignment of partner-specific tasks Structural separation vs. Integration of competitive and cooperative aspects Workshops and events Incentive policies	Typologies of cooperation relationships with varying degrees of cooperation and competition Balancing cooperation and competition within alliance portfolios External parties establishing a balance Changes in market power and competitive behavior of firms Continuous adjustment of mechanisms and structures due to changing expectations Managing tension and conflict	Influence of the cooperation firms' structure Influence on firms' abilities Positive outcome about financial and value creation Increased value for consumers through enhanced products and innovation Influence on the industry characteristics (competitive intensity and cooperation)
Intra-firm level	Interdependence of units and simultaneous competition between them for the parent's resources	Setup of cooperation mechanisms to ensure control and knowledge flows Allocation of cooperative and competitive activities in different separate areas	Enforce communication among the units (i.e., workshops)	Influence on firm performance (knowledge-sharing, improved customer orientation, enhanced ability to innovate)
Network level	Firm's position within a network influences cooperation Compatibility of characteristics of firms within a network	Cooperative setting with multiple partners to increase value creation Setting up a network governance structure Separation of cooperative and competitive actions within a network	Network dynamics (shaping through cooperative action) A balance between cooperation and competition between networks is facilitated through compatible network structures Managing tension and conflict	Cooperation within networks might lead to the formation of subnetworks Positive effect on value creation

Source: Adapted from Dorn et al. (2016).

Regardless of the level of analysis, cooperation has benefits and risks for the players involved. These results are described in the following section.

2.1.3 Outcomes of Coopetition

Coopetition allows firms to access resources and markets, economies of scale and scope, increased bargaining power, reduction of transaction costs, periods of product development and innovation, and contractual mechanisms to neutralize opportunistic risks. Nevertheless, strategic options enable assuming flexible postures (LADO et al., 1997). However, despite coopetition being based on convergent interests, its model is criticized for the risks posed by opportunism and environmental dynamism (GULATI et al., 2000; HAMEL, 1991). Therefore, coopetition is not a dichotomous construct on a continuum between competition and cooperation. It is a multidimensional, complex, and dynamic concept that takes different forms and multiple levels of analysis about structure, processes, and standards through orthogonal constructs (PADULA; DAGNINO, 2007). Coopetition implies sharing goals that induce agents to cooperate and compete to reduce risks, losses, and uncertainties, expand their strategic options, and leverage their earnings and performance.

Both coopetition and collaboration arise from shared interests that replace the maximization of individual gain. However, the gains will not necessarily be shared equally between the parties (PADULA; DAGNINO, 2007). A discord point will lead to a dispute over the division of the results. The earnings of the relationship not always will be proportional to what was invested by the participants, obtained through learning, and individual power exercised in the relationship strategy (ABDALLAH; WADHWA, 2009). Among the results obtained with coopetition, the following are mentioned: access to rare tangible and intangible resources; learning and access to advanced technology; acquiring qualified labor; achieving scale and scope in the markets; limiting and sharing the risks of the business; time-saving in innovation and technological solutions; strengthening of bargaining power; easier diversification of business activity; and increase organizational and strategic flexibility (ZINELDIN, 2004; CYGLER, 2009).

Coopetition is strengthened by the co-existence of shared market interests and asymmetric resources at competing firms. Shared market interests contribute more to competition while asymmetric resources foster cooperation (HAMEL et al., 1989). From a similar point of view, firms with a strong market position tend to adopt a competitive strategy, but the need for external resources requires a cooperative behavior (BENGTSSON; KOCK, 1999). Under these terms, firms can reduce costs, conduct research, acquire knowledge, and develop new products or technologies (LUO, 2007). At this point, the greater the interactions are, the greater the possibility of improving the performance of products, services, customer

relationships, gains in productivity, efficiency, and quality is, and this would not be possible to be achieved if it were developed in isolation (GANGULI, 2007). Moreover, cooptition may produce entry barriers against competitors not included in the cooptition (RITALA; HURMELINNA-LAUKKANEN, 2009). Especially for SMEs that may improve their position in the market using cooptition, this relationship is strategic to develop and gain competitive advantage (TOMSKI, 2011). In SMEs, owners, and managers generally are the same person, and they are responsible for strategies of the firm. In these cases, they have considerable influence and capacity to build the cooptitive strategies of the firms (GRANATA et al., 2016).

Cooptition can increase absorptive capacity, enhance information exchange (RITALA; HURMELINA-LAUKKANEN, 2013) and generate more creative ideas than competition or cooperation (ZHAO et al., 2016). However, excessive cooptition can have a negative influence on innovation performance, being a cause for concern on the opportunistic behavior (GNYAWALI; PARK, 2009; SUN et al., 2012). It happens due to the threat of expropriation because there is a difference between the knowledge created by the cooperation and the knowledge appropriated by the competition. Depending on the absorptive capacity of the competing firm, the asymmetry and volume of knowledge leakage may be significant (RITALA; HURMELINNA-LAUKKANEN, 2009). In addition to the free-riding behavior, another example of negative externalities of the cooptition is the generation of redundancy knowledge or learning isomorphism and reduction in learning efficiency, mainly because the number of collaborations grows, but there is no heterogeneity between the participants (OLIVER, 2004). This double-edged sword can be potentiated by the effect of the institutions, mainly in emerging markets.

The external environment, mainly the competition, may pressure the actors to adapt to the new challenges in this scenario (HAGBERG-ANDERSSON, 2006). In more dynamic and unstable markets, the higher will be the pressure of competitive actors (PADULA; DAGNINO, 2007). In this case, a strategic choice will be establishing a cooptition strategy between firms to manage a partially convergent interest and goal structure and create value. Consequently, cooptition brings better competitiveness and efficiency to competitors. Firms gain a competitive edge over competitors outside the relationship and develop skills and resources they need internally (CHOI, 2005). The interaction between cooperation and competition allows for cost reduction, risk sharing, exploration of skills, and efficiency gain. Moreover, rarely rivals compete in all businesses, products, or markets, providing opportunities to coopte. By comparing different relationship strategies, a framework is

established with similarities and differences between competition, cooperation, and cooperation to stress the importance of cooperation (Table 2).

Table 2: Comparing Competition, Cooperation, and Cooperation

Categories	Competition	Cooperation	Cooperation
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 aimed at mutual or superior benefit (OSARENKHOE, 2010)	Cooperation in areas different from the ones 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	Game Theory, Transaction Cost Theory (TCT), Resource-Based View (RBV)
Premises	Conflict, bargaining power	Harmony, trust, reciprocity	Interdependence, dynamism, complexity
Characteristics	Independent decisions are taken about common goals. Search for a balance between the agents	Development of joint actions to achieve mutual benefits and common goals. Agents avoid conflicts 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; LADO et al., 1997; 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 be imitated (BARNEY, 1991; PETERAF, 1993; WERNERFELT, 1984).	Lack of trust between the agents. Strategic misalignment occurs between the agents. Opportunistic behavior (TIESSSEN; LINTON; 2000; JARILLO, 1988; BENGTSSON, KOCK; 2000)	Agents invest resources to increase the total sum to be shared, but it will not necessarily be divided equally (PADULA, DAGNINO, 2007; ABDALLAH; WADHWA, 2009)
Criticism	Lack of recognition of the dependence of the firm's decisions about industry and economic imperfections (OSARENKHOE, 2010)	Lack of recognition of competitive forces or these being seen as negative influences (PADULA; DAGNINO, 2007)	Opportunism, asymmetry, the perception of justice between those involved (DOWLING et al., 1996; GULATI et al., 2000). Difficulty to replicate the predictive model based on the Game Theory to the cooperative environment (ARMSTRONG, 1997)

Source: the author (2017).

Thus, coopetition involves the search for maximizing the individual results through joint and coordinated actions. Therefore, firms must align their actions – both in the strategic and operational level – to reach their goals. Moreover, the biggest challenges are dealing with the opportunistic behavior risks and the asymmetry between the contributions and benefits over the results. In these terms, resources asymmetry and trust have a relevant role because "resource asymmetry is the fuel that drives the firms to the same direction; trust is the oil that lubricates the gears so that coopetition works properly."

Since coopetition is a dynamic, multifaceted, multilevel, and paradoxical phenomenon (DOWLING et al., 1996; BENGTSSON; KOCK, 2014; LUO, 2004; CHEN, 2008; RAZA-ULLAH et al., 2014; GNYAWALI; PARK, 2009), other models must be developed that go beyond the simple relationship between cooperation and competition. Coopetition must be analyzed from a multi-dimensional view, considering the influence of institutional arrangements, mainly in emerging economies, on cooperation, competition, and coopetition strategies between firms. Therefore, the role of institutions in emerging economies is the next topic.

2.2 Institutions in Emerging Economies

The studies on institutional theory were comprehended by three different areas: Social Sciences, Economic Sciences and Political Sciences (CHANLAT, 1989). However, this conception is often contradicted when the three orientations are included under the same approach, with the economic, political, and sociological views not being distinguished (SCOTT, 2008). However, as an institutional theory, the neo-institutionalism also works in three different areas: Social Sciences, Economic Sciences, and Political Sciences (HALL; TAYLOR, 1996). In this thesis, it was avoided using only the orthodox conception of the institution, based on the sociological perspective, introduced by DiMaggio and Powell (1983) and Scott (1995).

From an economic perspective, North (1990) emphasizes that institutions play a crucial role in the economy because they reduce uncertainty and become a reference to individuals. North defines institutions as "the rules of the game in a society, or more formally, are the humanly devised constraints that shape human interaction" (NORTH, 1990, p. 3). Institutions can be formal constraints, which are explicit (rules, laws, constitutions), and informal constraints (norms of behavior, conventions and self-imposed codes of conduct)

(NORTH, 1990). When institutions are inefficient, or property rights are not guaranteed, generating high transaction costs, the result is an unfavorable environment for the success of national economies. This type of institutional framework is more visible in emerging economies due to political and economic institutions that discourage productive activity. Political instability, government bureaucracy, quality of the regulatory system, legal system predictability, and control of corruption are such examples (CUERVO-CAZURRA; GENC, 2008).

The institution-based view has two different propositions (Table 3): (i) formal institutions (political regulations, court decisions, economic contracts), which seem to converge as legal or governance systems; (ii) informal institutions (behavioral, cultural, ethnic, ideological norms, conventions, conduct codes) can sustain this convergence, but not necessarily (KHANNA et al., 2006). Nonetheless, when there is a lack of or limitation in the formal mechanisms, informal devices to intervene to mitigate the uncertainty (PENG; KHOURY, 2008). An institutional system will be complete only through the interaction between formal and informal institutions (DUNNING; LUNDAN, 2008, 2010). Nevertheless, the institutions will operate through their formal or informal structures to perform economic and social transactions that, in turn, will affect any strategic decision adopted by the firm (NORTH, 1990). This thesis focuses on just formal institutions because they can be better represented to demonstrate the relationship between firms and government in the internationalization process.

Table 3: Dimensions of the institutions

Degree of formality (NORTH, 1990)	Examples	Supporting pillars (SCOTT, 1995)
Formal Institutions	Laws Regulations Rules	Regulatory (coercive)
Informal institutions	Norms Cultures Ethics	Normative Cognitive

Source: Peng et al. (2009, p. 64).

Child and Rodrigues (2005) emphasized the role of government in promoting the internationalization of firms, especially in emerging economies. Most of the advantages of these firms in the domestic market, as low operating costs, distribution systems, brands, customer, and government relations are not transferable to foreign markets (CUERVO-CAZURRA; GENC, 2008). In this case, the competition tends to be based on price, thus not being as easily sustainable as technology or brand (GAMMELTOFT et al., 2010).

Massive government intervention in business activities is a common feature of emerging economies. Examples of the public intervention are taxation, regulation, and state ownership, mainly in key sectors, such as mining, energy, infrastructure, and financing. Moreover, poor disclosure, financial opacity, complex organizational structures, weak property rights protection, fragile political institutions, corruption, social tensions, and regulatory distortions are part of the institutional arrangement of emerging economies (BALL et al., 2000; RAMAMURTI, 2012). Consequently, the quality of government policies is a critical impacting factor of emerging economy firms (LA PORTA et al., 1999), mainly because bureaucrats and politicians can make mistakes by having self-interests or even being corrupted. This characteristic is enhanced in emerging economies, representing countries whose national economies have grown rapidly, where industries have undergone and are continuing to undergo dramatic structural changes, and whose markets hold promise despite volatile and weak legal systems (LUO; TUNG, 2007). However, emerging economies cannot be generalized, because they include a diverse population of countries. In emerging economies, central and local governments are larger and more active than they are in developed economies (GAMMELTOFT et al., 2010).

From a political perspective, in the relationships between government and market, the government determines the structure of the markets, mainly in emerging economies. Business results from the policies and laws created by governments that define the inter-firm relationships (GRANT et al., 2010). On the one hand, there is the risk of inefficient allocation of resources due to political interests (GROSSMAN; HELPMAN, 1994), as well as information asymmetry motivated by power relationships. On the other, the information asymmetry can also reduce costs to obtain information, uncertainty, and risk sharing (GRANT et al., 2010). The government accepts this background because of the need resources and profits generated by the firms. Therefore, the government must attract and retain business (LINDBLOM, 1977), mainly by leading firms to enhance the compromise of business networks (WERNER; WILSON, 2008). Government plays a key role in fostering or inhibiting the global insertion of the firms. Government policies involve temporary protectionist measures through fees or entry restrictions (LAZZARINI, 2015). It can also act directly on the market through state-owned multinational firms. In this case, regulations can be applied in favor of the government and at the expense of other shareholders (CUERVO-CAZURRA et al., 2014).

Still, from a political perspective, but from the analysis of firms, business associations and representatives of the industry create conduct codes, guiding the government practices.

These are attempts to fill the gaps left by the government, by creating a self-regulation of the businesses through political influences (DAHAN et al., 2013). At this point, dominant actors influence the rules and, consequently, the other participants of the organizational field, guiding the actions according to their interests (FLIGSTEIN, 1996). The nature of the institutions and their environment influences the institutional strategies. In its turn, institutional strategies redesign their competitive positions according to the social structures that legitimize or challenge them to the group. Consequently, institutional strategies generate institutional leadership in the organizational field (LAWRENCE, 1999).

The government of coordinated market economies has gained advantages from these institutions, as industrial agencies and bureaus, to solve difficulties, such as information asymmetry, high transaction costs, and conflicts of negotiation between firms. Once these institutions are independent of the government and responsible for their members, they are in a better position to acquire trust, monitor relationships, and transaction costs, impose sanctions, and coordinate agents (HALL; SOSKICE, 2001). However, the agents' compromise will be higher as they influence to punish the government because of any deviation from established agreements (WOOD, 1999). Thus, the adherence to formal and informal institutions is based on different kinds of legitimacy as regulatory (conformity to regulatory standards, rules and laws), normative (compliance to broadly-accepted informal norms and values), cultural-cognitive (conformity to widely-held cultural beliefs and taken-for-granted practices), and industrial legitimacy (conformity to practices derived to industry) (CASTELLANO; IVANOVA, 2008). In this perspective, institutions affect not only the firms' decision but also enable or hinder the process in itself through bureaucracies, rules, party systems, political actors, interested groups, governmental programs and structural arrangements (SANGMPAM, 2007; MOE, 2015). This relationship affects the industrial competitiveness, according to the proximity to political institutions and firms in of the industry. On the other hand, it is a recursive relationship. It can also meet the interests of the government, aiming to correct market imperfections, provide resources or protection to some given industries.

Therefore, for internationalization purposes, institutions are formal structures responsible for guiding or restricting the choices of agents, acting in a positive, negative, or even indifferent way, to promote international insertion. Formal institutions influence firms' internationalization, enabling or hindering the process. Similarly, formal institutions are agents with a formal legal structure, that may be public or private sector, and include

organizations such as government agencies, industrial bureaus, supporting organizations, tax bureaus, state banks, and commercial administration bureaus (HE; WEI, 2013).

2.3 Institutions on the Coopetition

Institutions play a predominant role in promoting or facilitating networks and stimulating coopetition strategies, mainly in already robust industries (BRITO, 2001). Thus, they aim to increase the competitiveness of local businesses by developing learning and relationship networks, reducing transaction costs, and promoting the internationalization of firms. In industries with high competition and cooperation, institutions stimulate coopetition between rival firms, so that they create barriers to new entrants. Again, firms are strengthened to face foreign competitors. This stimulation occurs through identification and complementarity of resources. They must align the influence of the institutions with their interests if they want to be successful. Lastly, these relationships are dynamic since their goals evolve following the interdependence of firms and institutions (DELIGONUL *et al.*, 2013).

Considering the institutional environment where they are inserted, in many cases, emerging multinationals depend more on home country advantages than specific advantages (AMIGHINI *et al.*, 2010), as Brazilian firms do (CARNEIRO; BRENES, 2013). Therefore, a superior performance requires an alignment between multiple institutional settings due to the institutional distance between home and host countries (GAMMETOLFT *et al.*, 2012; KOSTOVA *et al.*, 2008). Superior performance depends on how institutional environment conciliates competitive and imitative pressures (SCHERER, 1980). Home country institutions can provide political advantages to firms to deal or to mitigate political risks in host countries. Governments use promotion policies to support the internationalization of firms such as low cost of capital, bilateral treaties, and trade shows (GAMMETOLFT *et al.*, 2012). On the one hand, home country institutions matter (CHACAR *et al.*, 2010) and, together with competition, they influence profits of the firm (CHERCHYE; VERRIEST, 2016). On the other hand, host country institutions can affect transaction costs and resources access, shaping the firm's market entry (UHLENBRUCK *et al.*, 2006) or attracting FDI through solid market institutions.

If a nature of the institutions can influence the business in an environment (DOH *et al.*, 2017), multifaceted coopetition can interact in this same environment based on networks among firms with third parties, such as the public sector (LUO, 2004; MARIANI, 2007) or consumers (WALLEY, 2007). In these cases, there is an imposition or incentives by a formal

institution for cooperation between firms, as in the tourism in Finland and Italy (MARIANI; KYLANEN, 2014). Induced coopetition is a transitory stage of coopetition when cooperation is imposed on competing firms, thus creating an emergent and unintentional strategy (MARIANI, 2007; KYLÄNEN; MARIANI, 2012). Induced or forced coopetition is likely to improve performance because firms have a higher level of efficiency from the new environmental conditions (MARIANI, 2007). However, this kind of coopetition is more transactional than traditional coopetition, because of the need to deliver benefits to third parties that induced the coopetition (WIENER; SAUNDERS, 2014; OHKITA; OKURA, 2014).

Formal institutions that interfere with the coopetition between firms can be created from the public and private interests or even both. The dynamics of coopetition among or between governmental actors can occur in a vertical dimension (based on federalism) or horizontal dimension (based on decentralization) among federal, state, and local authorities (ESTY; GERADIN, 2000). In these terms, MNE's that invest in emerging economies are forced to deal with governments to improve the investments in infrastructure, regarding the volatility and dynamism of emerging economies (LUO; RUI, 2009; HOSKISSON et al., 2013). From a private viewpoint, formal institutions are a useful mechanism to protect or to boost an industry, stimulating cooperation among rivals (OHKITA; OKURA, 2014). At last, the public sector, through formal institutions, can push competing firms to cooperate with each other by forming public-private partnerships (PPPs) (MARIANI; KYLÄNEN, 2014). Balanced coopetition, and consequently their competitiveness, both in the domestic market and international market, depending on the institutional environment.

Once we understand the evolution of coopetition and the institutions, it is relevant to trace how institutions influence this strategy from the same industry, operating via competition and cooperation simultaneously. In this conception, institutions play a predominant role in promoting or facilitating networks and stimulating coopetition strategies, mainly in already robust industries, marked by firms that compete in the domestic market and cooperate in the international market. Thus, they aim to increase the competitiveness of local businesses by developing learning and relationship networks, reducing transaction costs, and promoting the internationalization of firms (BRITO, 2001).

Industry level factors impact all firms while firm-level factors have a distinct role in influencing the coopetition (GNYAWALI; PARK, 2009). In industries with high competition and cooperation, institutions stimulate coopetition between rival firms, so that they create barriers to new entrants. Again, firms are strengthened to face foreign competitors. This

stimulation occurs through identification and complementarity of resources. They must align the influence of the institutions with their interests if they want to be successful. These relationships are dynamic, since their goals evolve according to the interdependence of firms and institutions, enabling cost reduction, learning, qualifying, and activities differentiation (DAL-SOTO; MONTICELLI, 2017). However, cooperation can to strength the competitiveness of firms at the expense of others industry participants (RITALA et al., 2014).

To defend market shares as opposed to growing market shares, cooperation has motivations that might change over time for different firms depending on the level of dominance. The less dominant firms tend to cooperate as a defensive strategy, while the dominant firms tend to engage in cooperation as an offensive strategy. In this case, there are several motivations for the firms to cooperate between themselves. Firms can aim to increase the size of the current market or to create totally new ones, use the resources more efficiently, or to protect their existing share of the market (VELU, 2015).

When firms enter the international market, dynamics are intensified. Relationships are *per se* a sensitive point, as the objectives are not always congruent or aligned between firms that cooperate with each other and the institutions that support firms. This topic is essential to this study because it clarifies the influence of institutions on cooperation strategies in the internationalization of firms from emerging economies. Therefore, the next section describes the relevance of international performance.

2.4 International Performance from Emerging Economies

Emerging economies are becoming one of the drivers of the global economy, with a strong increase in foreign direct investment (FDI). EMNE's FDI accounted for more than 22% of global FDI flow (UNITED NATIONS, 2012). There is a strong movement for the internationalization of firms from emerging economies (GAMMETOLFT et al., 2010). Furthermore, emerging economies are desired markets because of the large populations and increasing incomes, since large and rapidly growing domestic markets give them scale and cash to invest abroad (BERRILL; MANELLA, 2013). Moreover, they often have access to cheap state finance, and many of them are family-controlled, which makes easier to make a decision (DOHSE et al., 2012), or business groups and state-owned companies (SOEs), thus reducing transaction costs (BECKER-RITTERSPACH; BRUCHE, 2012). However, they are generally characterized by low-income, rapid-growth countries with fragile market institutions, lack of well-developed labor and capital markets, corruption, and excessive

bureaucracy (HOSKISSON et al., 2000; PENG et al., 2008; SCHOEN, 2009; PARENTE et al., 2013).

As well as institutions affect the industry in such a way that no organization is oblivious to the influence of the institutions when making their decisions legitimate (PENG, 2002), other relationships are also established. The diversification of international operations of firms from emerging economies reduces their performance because it implies a demand for adaptability to the institutional arrangement, whether it has a regulatory, normative, or cognitive origin (SCOTT, 1995; KOSTOVA; ROTH, 2002; KIM et al., 2010). Still, institutional changes affect the business landscape of a country. In these terms, specifically in Brazil, there is an important institutional effect on the performance of firms. “Links to domestic trade associations and professional bodies can provide intelligence on different markets and access to those markets for international operations” (YIU et al., 2007, p. 524) Similarly, these impacts of institutional effects may be different across industries (KALLAS et al., 2015).

A measurement of critical relevance in international business is the MNE performance or international performance. The international experience developed by the firm is closely co-related to its financial and strategic performance and their satisfaction with the performance of international operations (ZOU et al., 1998). Export performance can also be a multidimensional construct with variables of external environment, firm characteristics, and strategy (CARNEIRO et al., 2011). International market performance is based on firm's marketplace performance (JARWORSKI; KOHLI, 1993), financial performance, and levels of customer satisfaction (WALTER, 2006). International performance is composed of four variables: sales, profits, sales change and profits change (MADSEN, 1987; SHOHAM, 1999; STYLES; AMBLER, 2000), and even a subjective variable: managers' satisfaction about export performance (SHOHAM, 1999). However, international performance and export performance still have not a decision about the best way to assess it (KATSIKEAS et al., 2000; OLIVEIRA et al., 2012) because researchers use both objective and subjective indicators (HE; WEI, 2013).

However, despite its importance, performance measurement is still controversial and has some gaps to be fulfilled. The following can be emphasized: the absence of a unified measurement scale, the concentration of studies in firms from developed countries, problems with the scales' reliability, the lack of a multicultural approach, the use of firms from different industries in the sample, the lack of comparability due to divergences in the analysis unity,

and indicators with little relation to the determinants of international performance (GARRIDO et al., 2015; WAGNER et al., 2012).

At this point, it is noteworthy the different concepts of performance. This thesis does not specifically refer to the term performance alone, but to international performance. Performance – also called organizational performance – is a complex, multifaceted and broad concept. Therefore, it is not the objective here to extend this topic. However, international performance has been measured, sometimes, through performance, particularly export performance. Performance differences, mainly export performance differences, are mainly influenced by three factors: i) external environment; ii) firm characteristics; iii) competitive strategy of the firm (CARNEIRO et al., 2011). In these terms, international performance, at the level of the firm, should consider quantitative measures such as costs, prices, and profitability, as well as qualitative measures such as quality and satisfaction (BUCKLEY et al., 1988). In this study, international performance is measured based on financial, strategic, and satisfaction indicators about this construct. However, this measurement must take into account the influence of the formal institutions as well as the relationship strategies, that is, cooptation. Therefore, the relationship between cooptation and international performance is developed in the next section.

2.5 Cooptation in the International Performance

One important point to clarify is about cooptation regarding strategies as strategic alliances. The increasing complexity and uncertainty of the business environment in the last decades has become a reason to search for new strategic solutions that would allow for the survival and growth of firms (CYGLER; SROKA, 2016). Initially, more attention was paid to strategic alliances (LORANGE; ROOS, 1992; DOZ; HAMEL, 1998). At the turn of the century, interest had increased in networks (JARILLO, 1995; DYER, 1996; GULATI, 2007) and clusters (PORTER, 1990; 1998). Cooptation has been studied as a single (single strategic alliances) and multilateral (networks, clusters) dimensions (DANA et al., 2013).

Strategic alliances are consistently applied between firms in an international business context. These types of alliances are collaborative projects between rival firms operating in the same industry where the firms keep their strategic autonomy. That is, this definition excludes mergers, acquisitions, and vertical partnerships, such as buyers and suppliers (DUSSAUGE; GARRETE, 1997), but sometimes include cooptation. It implies the coexistence of cooperation and competition between competitor firms and a different format

for strategic alliances between firms, which is called coepetitive alliances (KHANNA et al., 1998). Coepetition between rivals does not necessarily remain constant over time because external and internal environments are dynamics, like market and coepetitors (HUNG; CHANG, 2012). Strategic alliances can take place among competitors or non-competitors (vertical actors or suppliers and producers) and, in these cases, is not a synonym of coepetition.

Despite penalty costs and alliance cycle affect the stability of coepetition based on strategic alliances (QING; ZHANG, 2015), they mutually complement and strengthen firms, by launching new products, entering new markets, reducing costs and risks, creating and transferring technologies and capacities (FERREIRA et al., 2014). Through coepetition, firms improve their scope of flexibility and gain range of strategic options (LADO et al., 1997). Therefore, the possible strategic outcomes for firms are: i) acquisition of new capabilities; ii) mutual specialization; iii) one-way skill appropriation; or iv) no changes in the results (DUSSAUGE; GARRETE, 1997).

Considering cooperation and competition not as opposites in a continuum, but inter-related in separate dimensions that often simultaneously occur for a firm, firms can generate economic rents and achieve superior and long-run performance through coepetition (LADO et al., 1997). Luo (2004) introduced the following typology for MNE's, considering coepetition inside a globally coordinated system among different agents (Figure 4).

COMPETITION	Low	Contender <i>Bargain</i> <i>Challenge</i>	Integrator <i>Compromise</i> <i>Influence</i>
	High	Estranger <i>Compliance</i> <i>Circumvention</i>	Partner <i>Accommodation</i> <i>Co-optation</i> <i>Adaptation</i>
		Low	High
		COOPERATION	

Figure 4: A typology of coepetition.
 Source: Luo (2004).

Coepetition is represented as a mix of cooperation and competition, divided into four squares, corresponding to the positions and interactions of MNEs in the international market. Contenders are formed by firms who display a strong competitive bargain due to market power, competitive position, or market share. In this case, firms compete with the support of a formal institution – specifically with a host government – for local resources. Estranger is a firm with a low degree of competition or cooperation with other firms or government. This

behavior is expected to appear in deregulated industries and firms relying on their resources. Partners are firms that search for synergies of complementary resources and capabilities or collaborate with host governments because of congruent interests. Lastly, there is an integrator when there are high degrees of cooperation and competition between the firms. Integrators mutually depend on one another to achieve respective goals, occurring mainly in deregulated industries with independent actors, either other firm or host government (LUO, 2004; CHIN et al., 2008).

In these terms, it is relevant to highlight that there is not a consolidated scale measuring cooptation. There is only one scale that identifies the creation of value in cooptation in inter-firm alliances. In this study, Rai (2013) identified a three-dimensional construct divided into common benefits, private benefits in cooperation and private benefits in competition. Morris et al. (2007) also identified three dimensions in the cooptation, including benefits that can derive both cooperation and competition. Besides the mutual benefits, trust and commitment were mentioned as determinants for cooptation.

Song (2004) designed the just motivations for firms in the port industry to cooptate with each other. The most important motivations can be categorized as strategic, financial, economic, operational, and marketing motivations. However, the influence of size difference on a firm's cooptation has no significant impact on the cooptation pattern (SONG; CHEON; PIRE, 2015). Constructs were also defined to measure the industry cooptative potential and firms' cooptative potential (CYGLER, 2009).

In another line of research, successful factors and sub-factors were identified in a hierarchy model of cooptation. It comprehends four levels – goals, categories, factors and sub-factors – and three categories – management commitment, relationship development and communication management (CHIN et al., 2008). Factors facilitating the implementation of cooptation between firms were also identified, with emphasis on cooperation taking place far away from the consumer and competition occurring near the consumer (KOTZAB; TELLER, 2003). Perera et al. (2015) found four factors that affect the success of cooptation and firm performance: trust, mutual benefits, resource compatibility, and commitment. However, power balance positively moderates this relationship between factors and cooptation (Figure 5).

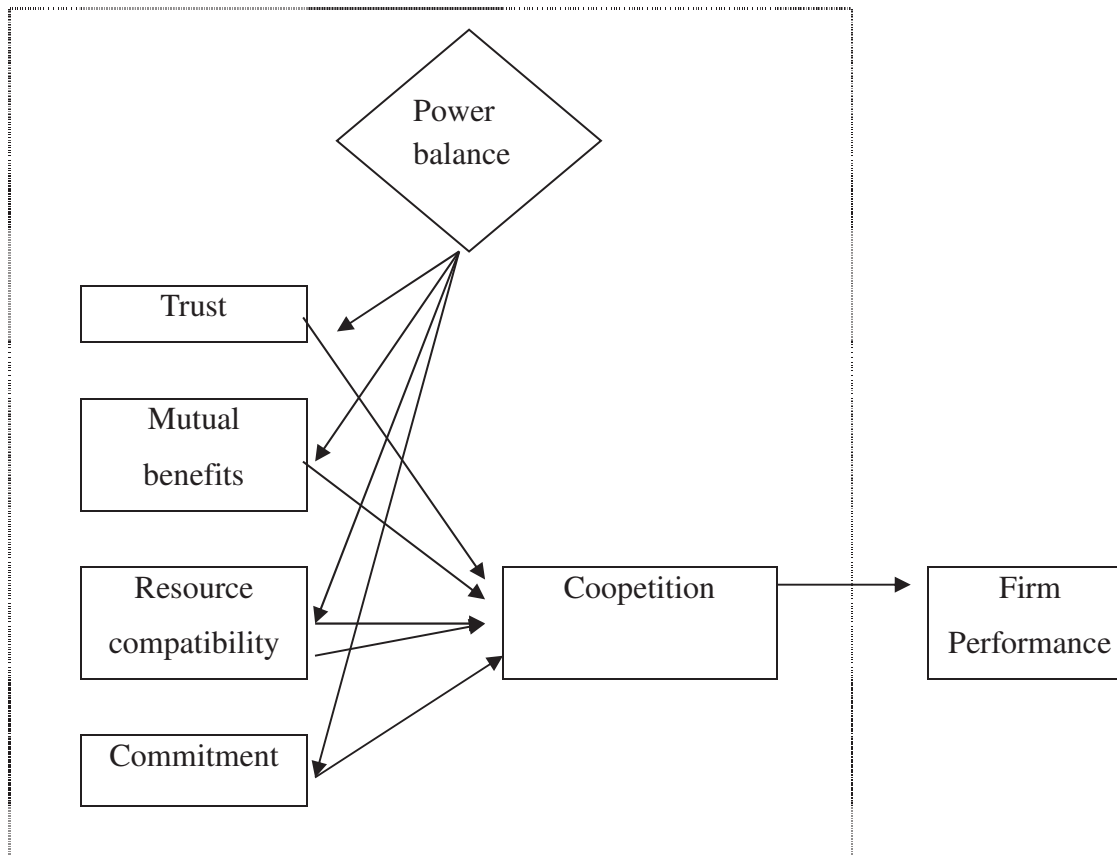


Figure 5: Power balance between coopetition and firm performance.
Source: Perera et al. (2015, p. 67).

There is a correlation between coopetition and international opportunities as well as the internationalization process of SMEs, which aim to develop international experience in global markets. In this sense, SME's capabilities can be dependent on coopetition (VANYUSHYN et al., 2009; GALDEANO-GÓMEZ et al., 2016). For this purpose, firms may maintain high cooperation in some countries and high competition in other countries with the same coopetitor (LUO; RUI, 2009). Here, different levels of coopetition affect the characteristics of international opportunities, mainly influencing the export propensity of small firms to internationalize (KOCK et al., 2010). Coopetition is especially beneficial when the uncertainties of the market – regardless of being internationalized or not – are high, improving the firm's market performance as well as innovative performance (RITALA, 2012). Similarly, institutional elements, mainly competitive pressures, constitute a third variable – besides cooperation and competition – that could significantly affect firm performance (CHACAR; VISSA, 2005). In this sense, studies bringing competition and international performance closer (focused on exports, mainly) have been developed in industries and countries as small Finnish firms (VANYUSHYN et al., 2009), small dairy producers in New Zealand (LE CREN et al., 2009), SME and large companies in Poland (JANKOWSKA,

2011), small firms in wine industry in France (GRANATA, 2012), Chinese exporters (HE et al., 2012) and, vegetable exporters from Spain (GALDEANO-GÓMEZ et al., 2014).

It is worth mentioning that measuring the institutional power in international performance is a path to be taken through descriptive, qualitative, and quantitative instruments. However, it must be said that each institutional context is different from the next, but the aim is to consider how each firm constitutes their institutional arrangement to obtain a better performance (PENG et al., 2009). Understanding coopetition demands perception of the comprehensive environment and the strategies of firms (PATHAK et al., 2014).

Considering the different concepts, drivers and outcomes of coopetition, there are still studies to be carried out, mainly to analyze its multidimensional nature. Therefore, identifying the role of formal institutions in cooperative strategies between firms in intra-industry – horizontally – is relevant to advance in this field of research. Unlike the coopetition in a supply chain, establishing a view of the coopetition in networks seems to be more promising since the relationships are more complex and multi-directional between participants. Moreover, the influence of the coopetition on the formal institutions' support for networks can redefine the trust and compromise levels, thus resetting the balance or imbalance of inter-firms' power. This research focuses on the relationship inter-firms based on networks in multiple industries. Moreover, this study analyzes the role of formal institutions, but only in the home country of the firms. Therefore, in the next chapter are established the hypotheses, the research model of the research and the Institutional Approach on Coopetition.

3 THEORETICAL FRAMEWORK

In this chapter, the hypotheses and model are presented. Also, the framework about the concept of Institutional Approach on Coopetition results from research aiming to insert the role of the institutions in the different relationship strategies, mainly in coopetition.

3.1 Hypotheses about the Institutional Approach on Coopetition

The institution-based view has deepened comparative studies between emerging and developed economies to stress the institutional differences and their impact on the performance of international businesses (PENG et al., 2008). Following these studies, a firm set in a particular institutional environment will optimize its performance considering the context where it operates (PENG; LUO, 2000). Therefore, government policies are influential, because they provide economic incentives, create protection mechanisms in the domestic market (SHETH, 2011), and direct the process of internationalization of firms (RAMAMURTI, 2008). Just as firms strategically exploit the institutions to extract benefits (MARTIN, 2014), institutions also place restrictions on firms' internationalization. These restrictions occur due to norms, requirements, and contractual mechanisms (DUNNING; LUNDAN, 2008).

Under these terms, formal institutions have a direct and positive relationship with the international performance of the firms. First, institutions in host countries shape firms' market entry strategies and modes (GULER; GUILLEN, 2010; MEYER et al., 2009; ANG et al., 2015). Second, firm profitability is the result of the interplay between competition in the home-country institutions (CHERCHYE; VERRIEST, 2016), because firms adapt their strategies to local institutions (MEYER, 2001). Third, the resources needed can come from an institutional advantage, in which institutions are responsible for the transfer of resources between firms (MARTIN, 2014) enabling them to overcome barriers such as the bureaucracy of foreign institutions, unfavorable exchange rates, unknown brands and country of origin, high internal taxes, and lack of knowledge about markets. Fourth, institutions in emerging economies play a relevant role in strategy and in the performance of domestic and foreign investments made by firms that compete internationally (GAO et al., 2010). Therefore, firms in the international expansion may exploit formal institutions as strategic opportunities (REGNER; EDMAN, 2014).

The relationship between formal institutions and international performance can be explained by adherence to formal institutions by firms through participation in internationalization project each industry. In these terms, non-market forms of capital influence the embeddedness of the firms as networking, learning, and political capital as internationalization and cost reduction (HE; WEI, 2013, PLA-BARBER; ESCRIBÁ-ESTEVE, 2006). In contrast, the level of the adherence to formal institutions by firms is proportional to the level the legitimacy that they obtain. Legitimacy refers to the acceptance, approval, and support of a firm by its social environment (SUCHMAN, 1995).

The influence of the formal institutions affects the performance, according to the proximity of formal institutions and firms in the industry, but it is a recursive relationship. It can also meet the interests of the government, aiming to correct market imperfections, provide resources or protection to some given industries. Similarly, formal institutions influence the firms' internationalization, enabling, or hindering the process. The firms in the process of internationalization are also constantly involved with the institutional systems, under the influence of different levels and institutions factors, but in a multidimensional environment. That is a non-linear, fragmented, and dynamic environment. Thus, the analysis in this study focuses on formal institutions, which are created explicitly and intentionally to promote and to increase the performance in the internationalization of firms from emerging economies. Following these arguments, it is proposed that formal institutions have a direct relationship with international performance.

H1: there is a positive and significant relationship between adherence to formal institutions and international performance of firms.

Coopetition is fostered through formal institutions aiming to strengthen the industry. One way is the process described as "forced coopetition," where there is the intervention of a formal institution to deal with the strategies of firms (MARIANI, 2007; KYLÄNEN; MARIANI, 2012). In this case, the formal institution can be a policy maker (MARIANI, 2007), a public-private partnership (PPP) (MARIANI; KYLÄNEN, 2014), public sector institutions (KYLÄNEN; MARIANI, 2012), or government (ESTY; GERADIN, 2000). For internationalized industries or the ones with this objective, formal institutions play a relevant role in stimulating the coopetition between the firms aiming to improve the international performance. Moreover, firms manage their relationships with other firms to create a better fit between institutional environment and their strategy. This way, institutions improve firm's relationships, such as coopetition, aiming at a superior performance in the same industry. One

way is to emulate the best firms to improve the performance (MARIANI; KYLÄNEN, 2014). Coopetition can be used to achieve better performance than firms that cooperate or compete separately, mainly when obtaining average profitability in the long term (CZAKON, 2009).

Coopetition has an important impact on firm performance by measuring a single indicator or multiple measurements (LUO et al., 2006; LUO et al., 2007). The findings have confirmed that coopetition leads to better performance in two ways: a) coopetition permits the attainment of performance more than the conventional approach based on cooperation or competition; b) coopetition allows for the earlier achievement of higher performance levels before and beyond network formation (PENG et al., 2011). Coopetition can be viewed in different ways regarding its relationship with performance. As a mediator effect, coopetition influences the competitive success of firms – measured by sales volume, market share, and return on investment in alliance strategies or alliance functions (BOUCKEN; FREDRICH, 2012).

Coopetition may bring contributions of financial performance (ROBERT et al., 2009), innovativeness (GNYAWALI; PARK, 2009; RITALA, 2012), and market performance (GNYAWALI; PARK, 2011; RITALA, 2012). Coopetition contributes to a superior performance (GARCIA; VELASCO, 2002; LUO et al., 2006; BOUNCKEN; FREDRICH, 2012), mainly in competitive markets, such as the ones disputed globally through internationalization. First, there is a correlation between coopetition and international opportunities, mainly in the internationalization process of SMEs (KOCK et al., 2010). Second, the interaction between cooperation and competition allows for cost reduction, risk sharing, exploration of skills, and efficiency gain (ZINELDIN, 2004). Third, coopetition provides access to resources, markets, knowledge, and learning (BENGTSSON; KOCK, 1999; 2000) for internationalization of firms. Fourth, rarely rivals compete in all businesses, products, or markets, providing opportunities to cooperate with each other. Fifth, coopetition has a large potential regarding enhancing local specialties to gain a satisfactory economic-commercial positioning on international markets (FESTA et al., 2017). Therefore, coopetition contributes to a superior performance (LUO *et al.*, 2006; BOUNCKEN; FREDRICH, 2012), and financial performance (BOUNCKEN et al., 2015) mainly in competitive markets, such as the ones disputed globally through internationalization. Moreover, there is a correlation between coopetition and international opportunities, mainly in the internationalization process of SMEs (KOCK *et al.*, 2010). However, coopetition might not be the only factor accounting for better performance.

Empirically, measurements are necessary to the study of coopetition (CHEN, 2008) for cooperation and competition are most often measured separately (BENGTSSON; KOCK, 2014). The idea of coopetition becomes more concrete when it is considered competition and cooperation as two separate axes of exchange that can be used concurrently (BENGTSSON; KOCK, 2000). The ambiguous conceptualization of coopetition hinders the research field and the very concept of usefulness. Coopetition is employed for very different phenomena (BENGTSSON et al., 2013). Thus, for this thesis, the purpose is to measure coopetition as a construct, including the institutional influence in this relationship with international performance. In these terms, coopetition is measured regarding competition and cooperation in domestic and international markets simultaneously, but with opposite strategies between markets.

Based on this explanation, it is proposed:

H2: Coopetition mediates the relationship between the adherence to formal institutions and international performance.

Following the proposed hypotheses, the research framework is presented in Figure 6. The purpose of this thesis relates formal institutions and international performance, considering coopetition as a mediator in this relationship.

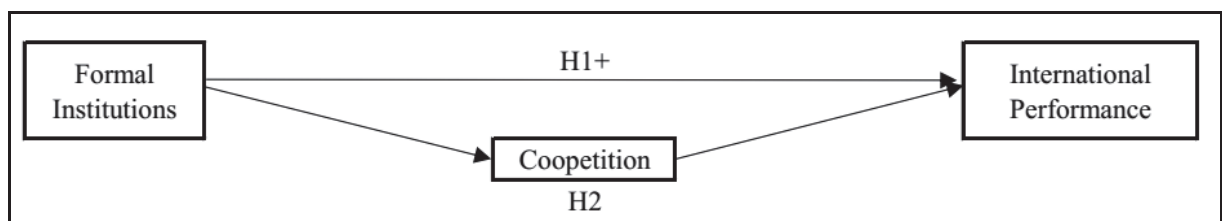


Figure 6: Research framework.
Source: the author (2017).

H1: adherence to formal institutions have a direct and positive relationship with international performance

H2: coopetition mediates the adherence to formal institutions-international performance relationship

Therefore, it is relevant understanding that the influence of formal institutions positively affects the international performance of firms, but the results overflow partly

because of the coopetition between those firms, partly because of the internationalization of these firms. These results confirm the effects of transbordering cooperation and competition among firms in the Polish-German border (DOLZBLASZ; RACZYK, 2017). In opposite, these results contradict the idea that the emerging economies are typically based on competition (PINDARD-LEJARRAG; GUTIERREZ; 2010).

The next section consolidates different perspectives relating coopetition and institutions.

3.2 Drawing the Institutional Approach on Coopetition

Coopetition relationships are already established in the literature, generally in developed economies. There are still few studies on coopetition in emerging economies, mostly in SMEs. Generally, in emerging economies, coopetition is analyzed as separate cooperation or competition strategies, with the dynamics of the coopetition between firms not being specified (except for LUO, 2004; LUO; RUI, 2009; WU, 2014). Precisely in emerging economies, there is a greater influence of the institutions, especially because of their fragility or even because of their institutional voids (KHANNA; PALEPU, 1997). However, studies about coopetition have not included this approach of research. The approach of this research analyzes coopetition from a multi-dimensional view, considering the influence of institutional arrangements on different strategies from coopetition. Coopetition, for this thesis, is the combination of competition and cooperation in different areas simultaneously (BOUNCKEN et al., 2015). Figure 7 outlines the relationship among institutions, competition, cooperation, and coopetition that it is called Institutional Approach on Coopetition. In this sense, it is described strategies between firms can occur in several dimensions. Firms can maintain the maximum point of cooperation (A) or maximize the competition in the industry (B), with both strategies being under the influence of the institutions. Coopetition strategies can also be considered only with the interaction between the firms (C). Finally, coopetition can be potentialized with the influence of the institutions (D). Regardless of the extreme points of the framework that illustrates the strategies between actors, there is dynamism in the relationship allowing locating different strategy in any part of the framework, which is represented by the circle in the center of the figure.

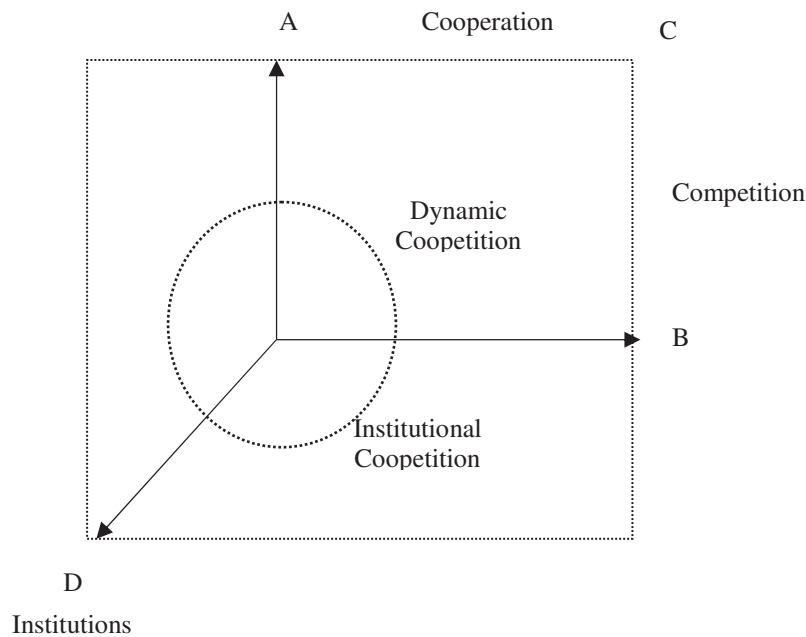


Figure 7: The Institutional Approach on Cooperation.
Source: the author (2015).

High level of cooperation under the influence of institutions (A): cooperation is maximized between firms due to the action of the institutions. There is an interest of institutions to enhance the competitiveness of the industry, intervening through government actions, research centers, university, class entities, or unions. Another reason is to promote the internationalization of strategic industries in the country, exploring firm-specific advantages (FSAs) and/or country-specific advantages (CSAs) (RUGMAN, 1981), mainly in emerging economies (RUGMAN, 2007; RUGMAN; LI, 2007). In this case, firms join in clusters or networks searching an enabling business environment through scale gains, learning, shortening innovation times, solution access, cost reduction, and social connections (BALESTRIN; VERSCHOORE, 2016). Cooperation between firms is one of the main advantages of clusters or networks, regarding firms in emerging economies, have more experience doing business in the fragile economic environment than MNEs (GROSSE, 2016).

Institutions define the rules and norms for activities of firms and industries (PENG et al., 2008). In emerging economies, there are more differences than in developed economies (MAKINO et al., 2004). Institutions, especially financial and legal ones, tend to be more evaluated and transparent in the developed markets than in emerging economies, due to the limitation of investments, fragile financial intermediates, incipient capital markets, and innocuous legal systems (RAMAMURTI, 2000; PENG; HEATH, 1996). The role of the institutions becomes more decisive in the private sector of the economy, mainly considering the proprietary rights protection, operations in capital markets and laws reducing uncertainties

and promoting the development (BANERJEE et al., 2006). Cooperation strategies, under the influence of the institutions, even though they are deficient, can help to overcome the country-specific disadvantages, while stimulating the interaction between the firms within a single industry.

High level of competition under the influence of institutions (B): competition is maximized between firms due to the action of the institutions. The institutions no longer have a secondary role and assume a relevant position in formulating and implementing the strategy as a competitive advantage source (INGRAM; SILVERMAN, 2002), while reflecting on their international performance (MAKINO et al., 2004). Formal institutions pressure firms within an industry, thus modifying their strategy. Firms adapt themselves to the institutional pressures or are excluded from a priority group of relationship in the industry. For internationalization of the firms, formal institutions promote building relationships while leveraging learning within the network. However, the institutional environment of emerging economies is very different from the environment of developed economies (GAUR; KUMAR, 2009). The institutions in these countries take a relevant role in the strategy and performance of domestic and foreign investments of firms competing internationally (GAO et al., 2010).

It must be considered that both legal and government arrangements and informal institutions can influence the corporate strategies and consequently affect the business performance (MEYER, 2004). Institutions can interfere with the markets aiming to correct their inefficiencies. In this case, there is a concern in forbidding some practices, such as collusion, monopoly, or oligopoly. Consequently, competition between firms is fostered, aiming to keep the competitiveness in the industry, whether for strategic reasons or market policies.

In Brazil, for example, the Superintendence of the Administrative Council for Economic Defense (CADE) is responsible for ensuring free competition in the market. CADE both examines and decides on mergers, acquisitions, and incorporations and investigates cartels and other harmful practices to the free market. This institution constantly operates, for example, in the gas station market, aiming to avoid the practice of combining price and market division. Another recent case was flour mills that combined the transfer price for their distributors and were sued administratively by CADE.

High levels of cooperation and competition (C): cooperation and competition simultaneously, in the shape of coopetition, are maximized with the interaction between the players. According to Bengtsson et al. (2010), high levels of cooperation and competition to produce tension due to frequent moves and countermoves between rivals. There are hostility

and symmetry in the strategies of the firms that appear to be difficult to sustain (BENGTSSON; JOHANSSON, 2012). The high level of cooperation allows the efficiency and the reduction of transaction costs, while corrects imperfections of the market and makes the organizations more flexible to deal with the volatility of the environment where they are inserted (WILLIAMSON, 1985). A better use of the resources is seen, such as information and knowledge through cooperation (BENGTSSON; KOCK, 2000) unless their valuable resources are not shared (BARNEY, 1991; WERNERFELT, 1984). However, the lack of trust among the participants, the strategic mismatch between the firms with different goals, and the opportunism limit the collaborative strategy, as well as benefits that are inferior to the ones at which they aim (TIESSSEN; LINTON, 2000; JARILLO, 1988; DOWLING et al., 1996; BENGTSSON; KOCK, 2000). For example, Apple hired Samsung to produce a chip for iPhone 7, aiming to solve problems found in the latest version and to reduce the dependency on one only supplier (MENDOZA, 2014). Sony has also shared the content of PlayStation Now via Samsung Smart TVs (SNIDER, 2014). Surprisingly, Samsung announced that it is the supplier of OLED screen of iPhone 8 of Apple, a relevant component of this smartphone (CROTHERS, 2017). Recently, Amazon and Microsoft announced a partnership to extend the abilities of their voice-controlled digital assistants (WINGFIELD, 2017). High levels of competition implicate on the inter-dependency between the firms for the search of the same resources that not all of them can have at the same time. This situation motivates an individualist behavior that targets the gains of only one of them, ignoring the interests of the other participants in favor of their benefits (PADULA; DAGNINO, 2007; JARILLO, 1995). Competitiveness is intensified when challenges are posed by concurrence attitudes or when an opportunity to improve their market position is identified. In horizontal relationships, these interactions can yield networks of inter-organizational complementarity (BENGTSSON; KOCK, 1999). Vertically, position, power, and dependency of the firm within a network to which it belongs will affect the taking of competitive advantages to the firm. This inter-organizational relationship is influenced by the interaction with the purchasing position or by the selling position of the operation (BRANDENBURGER; NALEBUFF, 1995; HUNT, 2007; GNYAWALI; MADHAVAN, 2001). The main criticism of the exclusively competitive strategies includes not recognizing that the decisions of a particular firm affect the others and, consequently, the industry it belongs to; competition is described as being very passive; and ignores imperfections of the competitive relationship that can lead to, for example, a monopoly situation (HUNT; MORGAN, 1995; OSARENKHOE, 2010).

High levels of cooperation and competition under the influence of institutions (D): cooperation and competition simultaneously, in the shape of coopetition, are maximized by the influence of the institutions. Coopetition implies sharing goals that induce players to cooperate and compete to reduce risks, losses, and uncertainties. Thus, it allows increasing the number of their strategic options, leveraging their earnings, and having a better performance, compared to strategies based only on competition or cooperation. The institutions play a relevant role when intervening in the relationship between the firms. The institutions work as supporters of cooperation between firms in a particular industry, aiming to perform in the inefficiencies of the market. Moreover, the institutions work as neutralizers of competition between firms in this very industry, which can yield imbalances in the market. Therefore, the challenge is to find a balance through the dynamism of the relationship between cooperation and competition between firms, while the influence of the institutions takes place. Other times, government acts through formal institutions to induce cooperation between competitors aiming to correct market imperfections or to ensure efficiency of resources (MARIANI, 2007).

For larger Brazilian wineries on the foreign market, for example, the relationship network formed by the internationalization process – through the formal institution called Wines of Brasil – helps to shape the marketing strategies. The presence of Brazilian wines in foreign markets generates various types of gain for the participants. There is an exchange of experiences, learning gains and expansion of the relationship network by contact with wineries, institutions, and events with more tradition and history. It creates a greater number of strategic options, reducing the dependence on the domestic market; provides a recognition by the Brazilian consumer of the national wine, which is now valued in the domestic market after obtaining prestige and international awards; and establishes new relationship strategies, highlighting the coopetition. At such times, confidentiality of information does not predominate, but in the domestic market, the posture is entirely different. This position supports the concept of coopetition in which agents (larger wineries and smaller wineries) cooperate and compete, but in different areas (marketing, foreign trade, and marketing), to create value for the ones involved (an identity of domestic wine) while sharing resources and knowledge for a later division of the results (MONTICELLI et al., 2018, in press).

More recently, Uber and Cabify have joined forces against a project that is currently being discussed in the Federal Legislative Branch that hinders the competitiveness of the business model of those firms (BERGAMIM JR.; GOMES, 2017). In this case, coopetition is not stimulated by the institutions, but rather dealing with the institutional environment and its

exogenous variables. The cooperative relationship can be influenced by exogenous variables – driven by the environmental context – and endogenous variables – caused by the structure of knowledge between the agents. Changes in the environment can lead to changes in the structures of support and conflicting situations. In turn, the structure of knowledge requires selection, organizational interaction (connection of resources and activities to reach shared goals), and strategic interaction (efforts to strategic directions through collaborative activities) (PADULA; DAGNINO, 2007).

In the end, after introducing the strategies regarding the role of the institutions, the main challenge is to differentiate cooperation and competition when measuring these strategies. Aiming to reach this goal, this thesis divides the explanation into two parts – a theoretical part and an empirical part. In theoretical view, cooperation could be more explained through clusters or strategic networks. Particularly, strategic networks denote collective organizations that interactively engage multiple, legally independent firms in activities such as research and development, manufacturing and marketing (PARTANEN; MÖLLER, 2012). They are characterized by a distributed power structure among their members and are more typical of SMEs than large firms (GAUSDAL; NIELSEN, 2011). Such networks are formally established, goal oriented (KILDUFF; TSAI, 2003) and adopt specific governance rules (PROVAN; KENIS, 2007).

Both cooperation and competition arise from common interests that substitute the maximization of individual gain (BENGTSSON; KOCK, 1999). In these terms, competition is considered as a paradoxical relationship between two or more actors simultaneously involved in a cooperative and competitive interaction, whether they are horizontal or vertical (BENGTSSON; KOCK, 2014). It is challenging to maintain the dynamic balance between two approaches. It is rarely a stable relational state, marked by constantly moving strategic mix of cooperation and competition (BENGTSSON et al., 2010; ROY; YAMI, 2009). Therefore, competition is not as simple or harmonious as it might seem. Certain topics had to be overcome gradually over time, and others still present obstacles. To achieve effective competition, the role of institutions had to be constructed over a considerable period. The institutions had to earn legitimacy and be recognized and accepted by those involved (DAL-SOTO; MONTICELLI, 2017).

Empirically, cooperation is more viewed in networks and clusters as mentioned before. On the one hand, cooperation is based on organizational structures that firms cooperate to reach common benefits that are larger than the individual benefits. A good example is an automotive industry firms that only cooperate as a supplier to a large

automotive firm. On the other hand, coopetition, in this thesis, is based on dynamic strategies of competition and cooperation simultaneously aiming to reach common interests that substitute the maximization of individual gain. At this point, formal institutions can promote coopetition in an industry by contributing to the establishment of a collaborative strategy in a new or relatively unexploited environment – international market – between firms that are rivals in a different environment – domestic market. Coopetition allows firms to access more resources, in a shorter time, and with fewer risks than they would be able to access individually, facilitating their internationalization. The gains accruing from internationalization spill over into the domestic market, increasing firms' competitiveness regarding the creation of barriers to new entrants, such as better reputation, improved marketing strategies, and higher quality processes and products, among others. These advantages can facilitate access to new opportunities in new (international) markets and can also reap gains in the traditional (domestic) markets.

The next chapter presents the method of investigation applied in this research.

4 METHOD

This chapter presents the method. For the thesis to be carried out, its methodological proposal has three paths: theory and method refining, qualitative stage, and quantitative stage (Figure 8).

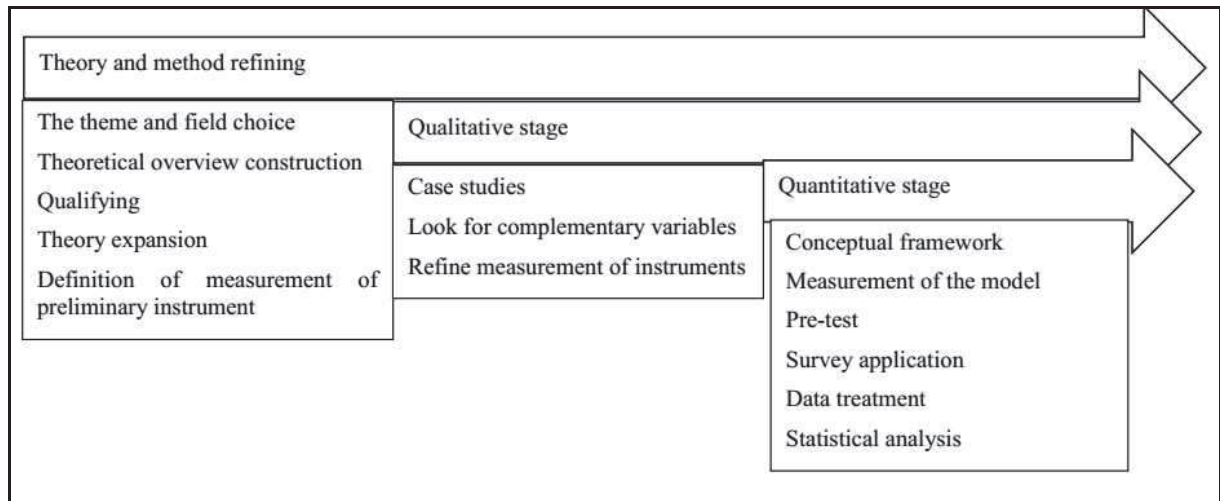


Figure 8: Research paths.
Source: the author (2017).

About the method, it is important to highlight the increase of qualitative research in administration and organizations in general, but this fact is less perceived in the academy of international business (BURGELMAN, 2011). On the one hand, in general, international business has been dominated by quantitative methods (YANG et al., 2006) that show concern in finding significance in the results of their research – a phenomenon is known as *p-hacking* or *search for asterisks* (MEYER et al., 2017). On the other hand, case studies may create causal explanations and incorporate the context of the theory, balancing the approaches (WELCH et al., 2011). In this case, contextualization calls for more qualitative research to capture phenomena, explore comprehensive insights and develop context-specific theories (TSUI, 2006). Thus, this study focuses how and how much are established the relations between the different constructs. First, this thesis presents the qualitative results to show the relationship among formal institutions, international performance, and cooperation. In these terms, qualitative results are an exploratory method to recognize the industries of the research. Second, this thesis brings quantitative results to show the intensity of the relationship among formal institutions, international performance, and cooperation. In the next section, the theory and the method chosen are developed.

4.1 Theory and Method Refining

This first section of the method deals with developing of the theoretical background to support this thesis. The idea is to present the path tracked to identify and search alternatives to solve the gap found.

4.1.1 *The theme and field choice*

The main idea of this thesis emerged during the research on the wine industry. By the end of 2012, the data collection identified in the interview with a representative of Aurora winery the following: "Abroad, we help each other; here, we kill each other" (when referring to the cooperation in the international market and the competition in the domestic market). In these terms, despite the recognition that cooperation could improve the performance of firms, there has been little attention paid to identifying the factors that affect a cooperative relationship (GNYAWALI; MADHAVAN, 2001; RITALA, 2012; PERERA et al., 2015; CZAKON et al., 2016), mainly by using empirical studies (GNYAWALI et al., 2008).

In this sense, this thesis is focused on applying the measurement instrument and data analysis in a multi-industry (IT, wine and footwear) in the home-country market. These industries were selected, due to the heterogeneity, accessibility, sample size, besides presenting different levels of internationalization, competition, and influence of formal institutions. Information technology (IT) industry, for example, is based on innovation and technology but is emergent regarding international business. The wine industry is divided into several formal institutions that aim to firms to internationalize. The footwear industry is based on labor-intensive and manufacture, and it is more consolidated and internationalized than the rest, but it is in decline. Moreover, researching in several industries will enable to evidence the variability of the institutional effects on the performance of the firms regarding the competition strategies. However, the influence of the institutional environment was only possible to be identified in the qualitative studies of this thesis since the limited sample did not allow us to make inter-industry tests in the quantitative studies.

In the next section, it is presented the review of the theoretical development of this thesis.

4.1.2 Theoretical overview construction and theory expansion

From the perspective of cooperative networks between firms, the level of centrality, structural autonomy, and resource asymmetries of a firm in a network will affect the competitive behavior of firms. Firms that are highly central and structurally autonomous tend to be more competitive due to their higher level of activity and versatility. At this point, structural position and level of centrality will be positively moderated by market diversity, that is, resource asymmetries obtained from the internal resources and capabilities of a firm (GNYAWALI et al., 2006).

From the perspective of innovation, potential absorptive capacity has a positive effect on incremental innovations in cooperative strategies. In the case of incremental innovations, it is emphasized that knowledge sharing (GHOBADI; D'AMBRA, 2012; 2013) and learning will positively affect the results of both cooperation and knowledge protection (RITALA; HURMELINNA-LAUKKANEN, 2013). Balancing cooperative and competitive forces to co-create value and to capture part of this value is also relevant to reap profits from innovation (CASSIMAN et al., 2009).

This study contributes to expanding knowledge about cooperation by relating it to institutions and firms in an emerging economy. It focuses on understanding the role of formal institutions in the promotion of cooperation and investigating their impact on the competitiveness of firms in different industries. This thesis focuses on cooperation from the process perspective (BENGTSSON; KOCK, 2000), showing that the firms studied exhibit different behavior in different areas, competing in the domestic market and cooperating in the international market. Formal institutions are agents in the public or private sector with formal legal structures, such as government, industrial, or trade agencies, offices providing support for organizations, and banks, among others (HE; WEI, 2013).

Scholars have focused on intangible effects of cooperation on the firms' performance, such as mutual benefits, trust, commitment, and resource compatibility (MORRIS et al., 2007; PERERA et al., 2015). However, less attention has been paid to the economic impacts on the firm's performance, as well as to why and how firms engage in cooperation, how cooperation dynamics affect the industry, and which factors drive cooperation (DELLA CORTE; ARIA, 2016). Thus, this study contributes to expanding knowledge about international performance discussing the influence of the adherence to formal institutions aiming to improve the international performance. Moreover, this study considers the influence of the cooperation in this relationship, explaining this construct as an independent axis. Thus, cooperation occurs

when competition and cooperation are noted in domestic and international markets simultaneously, but with opposite strategies between markets.

Therefore, it is understood that associating co-competition, institutions and international performance in emerging economies open an avenue of investigation and contributions to the theory. Multiple cases create more robust theories than research with single cases since the propositions are more in-depth with varied empirical evidence. Constructs and relationships are more precisely delineated. Definitions are more accurate, at more appropriate levels of the abstraction. To meet this proposal, the research was performed in IT, wines and footwear industries. At the end of this stage, it was obtained a more consistent knowledge of the chosen industries, thus making it possible to understand the institutional framework of each one of them.

In the end, it was written a final approach to the theory through the literature review, using box and arrow diagrams and summarizing in a table that concludes with a framework. Moreover, there was the possibility to cross-examine the interviews with the previously established categories. Therefore, a conceptual model to address the question was intended to be developed, by assessing and implementing a solution that solves the difficulty to capture the intensity and to measure co-competition. In these terms, the idea was to identify cooperation in the international market and competition in the domestic market and vice-versa. Thus, these strategies – cooperation and competition –, although isolated, could be measured together as co-competition.

The next section presents the qualitative stage of the research.

4.2 Qualitative Stage of Research

This second section of the method deals with the qualitative stage of this thesis. The idea was to recognize the field of the research and to combine discourses of the representatives of firms and formal institutions to figure out the composition of strategies of co-competition and the influence over international performance. Figure 9 summarizes the qualitative study procedures, from the initial research question throughout to analysis of the results.

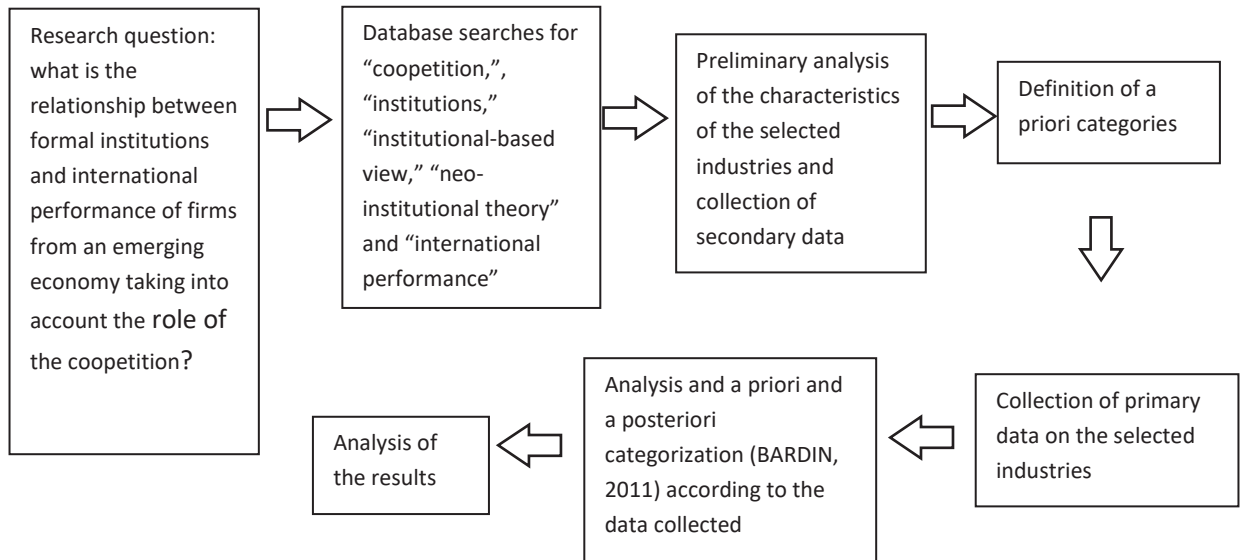


Figure 9: Sequence of qualitative study procedures.
Source: the author (2017).

4.2.1 Qualitative stage

The exploratory stage was qualitative. International business has been dominated by quantitative methods, mainly questionnaire surveys (YANG et al., 2006). However, as international business is dynamic, complex and multidimensional, it is indicated the use of qualitative methods (SINKOVICS et al., 2006) or the use of both methods (HURMERINTA-PELTOMÄKI; NUMMELA, 2006). Among the methods of qualitative research, case studies are more prevalent in international business (PAUWELS; MATHYSSENS, 2004). Theory building based on case study is useful in the first stages of research when a new perspective is necessary as well as situations where current theories seem inadequate (EISENHARDT, 1989). Thus, as coopetition is a complex and dynamic strategy, the case study method is well suited for this purpose.

In the next section, it is presented how the case studies were designed in this thesis.

4.2.3 Case studies

The second path was started with the qualitative data collection. In this case, it was chosen case study as an exploratory-descriptive way to know different industries. At this stage, it was conducted qualitative research using an exploratory case study approach (FLICK, 2014). The case study is an appropriate method for the type of investigation proposed since the objective is to understand whether and how a complex and little-explored

phenomenon takes place (YIN, 2010). Additionally, this thesis proposes an analysis is employing innovative theoretical relationships, by applying the institutional approach to study coepetition and internationalization.

The case study approach is appropriate in a new research area, like the one in this study. Theory based on case studies can be overly complex and lack an easy overview, or that it can result in narrow theory (EISENHARDT, 1989). To avoid this, cases of multiple industries were used to explore the field. Therefore, purposeful stratified sampling was chosen, since it is based on building subgroups that allow the comparison while searching for similarities and differences between the cases studied here. Data were grouped into categories to know the similarities and differences (MILES; HUBERMAN, 1994) within and between the industries.

The Brazilian footwear industry is suited to the objectives of this study because of the following characteristics: it is an emerging economy industry that is in a declining internationalization stage; the members exhibit high competition both in the domestic market and in the international market; there is an influence of the formal institutions that aim to promote the internationalization of the firms with less decision power of the firms than the other industries researched here. The Brazilian wine industry suits the objectives of this study because of the following characteristics: it is an industry in an emerging economy and is in an initial internationalization stage; its members exhibit competitive behavior in the domestic market and collaborative behavior in international markets, characterizing coepetition; there is a high number of formal representative institutions in the industry with convergent and divergent objectives. The Brazilian IT industry is suited for the objectives of this study because of the following characteristics: it is an industry in an emerging economy and is in a premature phase of internationalization; it is a very heterogeneous industry considering the products and services that it offers as well as the incipient level of professionalization and organizational structure, competitive strategies based on isolating firms; and there is a high number of formal representative institutions in the industry that represent different groups in the same industry. Therefore, about the choice of the industries, the purpose is to understand different strategies based on competition, cooperation and coepetition and, consequently, its influence over international performance, considering the institutional environment of the firms in these industries.

The interview participants will be chosen to suit the purpose of this study and based on who could have relevant insights to research. The starting point was a formal institution responsible for internationalization project each industry. A so-called snowball sampling of

further contacts is started. A snowball sampling is a type of non-probability sampling, which starts with someone that meets the criteria for participating, who will further recommend others who meet the criteria and could participate (EASTERBY-SMITH et al., 2012). The role of the participants in the cases might affect the results according to the size and the influence of the firm in the industry. The interviews were used to know the structures of the industries, main formal institutions and, in a second moment, to validate the quantitative research instrument with specialists of each industry. In addition to the practitioners, academic researchers of each industry were interviewed aiming to obtain more knowledge and a more impartial perspective.

There were interviewed representatives from firms, formal institutions, and academic researchers to collect data for the analysis of coopetition in the international performance over the influence of the formal institutions in the selected industries. Six representatives were interviewed from formal institutions relevant to the industry (managers, researchers, consultants, and industry executives) eleven representatives from different firms (supervisors, managers, directors of export departments) and four academic researchers (Table 4). There were recorded and transcribed all interviews, generating about 19 hours of recordings and 340 pages of statements by respondents. This knowledge was added to the previous knowledge about the wine industry based on 21 interviews made between 2012 e 2013, in addition to the knowledge of the research group of the advisor who was already involved with researching footwear and IT industries.

Table 4: General information about the interviews

	Interviewee	Position	Industry	Date	Duration
1	Assespro	President	IT	05 May 2017	1h29min
2	SOMA Informática	Partner-Director	IT	05 May 2017	1h11min
3	Wines of Brasil	Promotion Department Manager	Winery	10 May 2017	32min
4	Meta Group	Service Vice-President	IT	11 May 2017	1h17min
5	SAP	Head of Partner Services Delivery of Latin America	IT	12 May 2017	48min
6	Wirth	Exportation Manager	Footwear	30 May 2017	48min
7	Aurora Winery	Importation and Exportation Assistant	Winery	30 May 2017	59min
8	Crysalis	Business Manager	Footwear	02 June 2017	44min
9	Miolo Winery	Exportation Manager	Winery	05 June 2017.	42min
10	Softex	Senior Manager	IT	06 June 2017	41min
11	Specialist	Professor and former representative of formal institutions	Footwear	06 June 2017	50min
12	Specialist	Professor and representative of the firm in the supply chain	Footwear	08 June 2017	52min
13	Processor	Sales Director	IT	09 June 2017	46min
14	Embrapa Uva e Vinho	Researcher, supervisor, and economist	Winery	12 June 2017	1h23min
15	Bibi Calçados	Human Resource Manager	Footwear	16 June 2017	19min
16	Abicalçados	Project Manager	Footwear	21 June 2017	54min
17	Brazilian Footwear	Project Manager	Footwear	21 June 2017	1h02min
18	Specialist	Professor and academic researcher	Winery	23 June 2017	41min
19	Specialist	Professor and academic researcher	Footwear	27 June 2017	1h15min
20	Pegada	Marketing, IT, and Controlling Coordinator	Footwear	28 June 2017	29min
21	Peterlongo Winery	Exportation Supervisor	Winery	04 June 2017	42min

Source: the author (2017).

The script used in the interviews was primarily based on the literature and encompasses five analytical categories: introduction, business strategies (competition, cooperation and cooptation), role and influence of formal institutions, international performance of the firms, relevance of the cooptation relationship in the relationship between formal institutions and international performance (Table 5). These categories were because they describe the relationship strategies, specifically cooptation, adopted by firms in the domestic and international market, considering the support of formal institutions, furthering their international performance. At this stage, the construct validity was considered, which is the quality of the operationalization of the relevant concepts, that is, if the study actually investigates what claims to investigate (DENZIN; LINCOLN, 1994).

Table 5: Analytical categories used for the interview script

Categories	Guiding concepts	Theoretical background
Introduction	History; role and influence of the firm or formal institution; relevance of the firm or formal institution in the industry; characteristics of the industry	Characterization of the firm or formal institution in the industry
Business strategies	Firms share or compete for the same resources; firms work alone or together with my competitors; firms cooperates in some areas/markets and compete in other areas	Cooperation, competition, and coepetition
Role and influence of formal institutions	Main formal institutions in this industry and their roles; the role of the formal institutions in the industry; influence (intervention) of government in this industry; performance of trade associations, industrial agencies, tax bureaus, state banks, commercial administration bureaus, and universities.	Decision making of firms from the political and economic perspective of the Neo-institutional theory
International performance of the firms	Relevance of the internationalization strategies for the international performance of the firm; indicators used to monitor the international performance of the firm; level of satisfaction with the current stage of internationalization of the firm; main institutional factors that impact on international performance	International performance of the firms under the influence of the formal institutions
Relevance of the coepetition relationship in the relationship between formal institutions and international performance	Examples of the actions of the formal institutions fostering coepetition to promote the internationalization of firms in emerging economies; emergent or deliberated strategy of coepetition; interests of the firms and the formal institutions for the coepetition to be successful.	Relationship between formal institutions and international performance mediated by coepetition

Source: the author (2017).

The semi-structured interviews were available in an interview guide with warm-up questions, reflection questions, and closing questions that ensures similar types of information from all participants (Appendices A and B). These semi-structured interviews range from presenting only pre-determined topics to being open question interviews in which the interviewee could talk extensively about the subject (ALVESSON, 2011). The purpose of using a semi-structured interview is to get an insight and a deeper understanding of the participants within the chosen industries, by the research question and avoiding lost information by letting the conversation move too far away from the interview guide. The data collection is located within the participants' social context, which implies that the data is based on the interpretation of their experiences expressed in their own words. Nevertheless, there is an awareness that interview bias can occur when interviewers impose their reference frame on the participants, both in their questions and in their interpretation.

Another worry is the moment to stop adding cases and when to stop interacting with theory and data (EISENHARDT, 1989) In this study, two criteria. In the first issue, the criteria of theoretical saturation were observed based on the minimal incremental learning and

the analysis of the phenomena (GLASER; STRAUSS, 1967). In the second issue, the interaction between theory and data stops when the incremental improvement in the theory is minimal (EISENHARDT, 1989). There was a selection contrasting cases with dependent and independent variables. Moreover, it was analyzed internal validity (casual connections), external validity (generalizability), reliability (intersubjectivity) and construct validity (operationalization of concepts). This challenge can be faced with writing the theory in different ways. First, by doing a briefing on the emerging theory in the introduction. Afterwards, each hypothesis was written and linked to the empirical evidence supporting each construct. Thus, hypotheses were consistent since there will be effectively a pattern between data and theory, constructs and propositions.

The next section presents the secondary data collection and how the qualitative data was collected in this thesis.

4.2.4 Looking for complementary variables

In the third path, secondary data from formal institutions' and firms' websites were also collected to complement and contrast with information from interviews, plus bibliographical material such as websites, annuals, magazines, and books. A wide range of research data, including interviews, file data, survey data, ethnographic, and observations is part of the case studies. As the research proceeds, interviews often become primary research data, allowing to search for cross-case patterns and to identify similarities and differences between the narratives (EISENHARDT, 1989). Moreover, the systematic comparison between the emergent frame and the case evidence enables to define and validate the constructs. In this case, data from interviews, secondary data, researchers' observations and notes were all used for data triangulation. Data were triangulated with the objective of increasing validity and reliability, by collecting data at different times from different sources or with different instruments to study a single phenomenon (COLLIS; HUSSEY, 2005; STAKE, 1998).

For the data analysis, the content analysis technique was used to infer knowledge through the generation or not of quantitative indicators (BARDIN, 2011). The analysis of qualitative data followed three steps: i) data reduction; ii) data presentation; iii) conclusions and checking. The first step of the research aimed to choose, eliminate, and organize the data according to the research design and categories established. Therefore, the data analysis was performed by preparing summaries of interview recordings and the printed and digital

materials. It was used the NVivo software (version 11.0) to code data and help establish categories and subcategories (Tables 6 and 7). In the following step, the representations generated enabled us to understand the analysis made, mainly using the *software* NVivo (version 11.0). In the last step, the phenomena observed were explained, contrasting with propositions and hypotheses (MILES; HUBERMAN, 1994).

Table 6: Categories of the research

Sources	Number of references for encoding	Number of encoding knots
Internal\\Abicalçados	74	9
Internal\\ Assespro	44	6
Internal\\Notes Abicalçados and Brazilian Footwear	11	5
Internal\\Notes Footwear industry specialist01	11	5
Internal\\Notes Assespro	8	7
Internal\\Notes Winery industry01	11	9
Internal\\Notes Bibi Calçados	5	5
Internal\\Notes Crysalis	12	8
Internal\\Notes Embrapa Uva e Vinho	16	6
Internal\\Notes Footwear industry specialist02	8	6
Internal\\Notes Meta Group	14	8
Internal\\Notes Pegada	9	6
Internal\\Notes Processor	11	8
Internal\\Notes SAP	10	6
Internal\\Notes Footwear industry specialist03	11	7
Internal\\Notes Softex	11	8
Internal\\Notes Aurora Winery	10	9
Internal\\Notes Miolo Winery	12	9
Internal\\Notes Peterlongo Winery	9	7
Internal\\Notes Wines of Brasil	9	5
Internal\\Notes Wirth	8	7
Internal\\ Winery industry01	39	9
Internal\\Aurora	26	7
Internal\\Bibi Calçados	21	5
Internal\\Embrapa	25	7
Internal\\ Footwear industry specialist02	36	6
Internal\\Miolo	38	9
Internal\\Pegada	37	9
Internal\\Peterlongo	46	8
Internal\\Processor	57	7
Internal\\ SAP	26	5
Internal\\ Footwear industry specialist03	53	8
Internal\\ Meta Group	50	7
Internal\\Wines of Brasil	32	6
Internal\\Wirth	38	6

Source: the author (2017).

Table 7: Subcategories of the research

Knots	Number of references for encoding	Adding the number of references for encoding	Number of encoded items	Adding the number of encoded items
Knots\\Characteristics of the industry	88	88	33	33
Knots\\Coopetition with the support of formal institutions	74	74	20	20
Knots\\Influence or intervention of the government in the industry	76	76	32	32
Knots\\Institutional barriers and incentives to industry	25	25	15	15
Knots\\International performance of the firms	78	78	24	24
Knots\\Relevance of the coopetition with the support of formal institutions to promote international performance of the firms	120	120	27	27
Knots\\Role and influence of the formal institutions	163	163	33	33
Knots\\Strategies of competition and cooperation	113	113	31	31
Knots\\Strategies of the internationalization of the firms	101	101	30	30

Source: the author (2017).

In the content analysis, the relations between the knots (categories) were established, and the sources were analyzed. This relationship was established by distributing each part of the interview (references inside a source) inside the analysis categories that were previously defined, which in turn created the knots that were analyzed by NVivo version 11.0.

At this stage, the internal validity was considered based on relationships between variables and results, using research framework, comparing empirically observed patterns and predicted patterns in the theory and theory triangulation (GIBBERT et al., 2008; EISENHARDT, 1989). Then, it was compared the fieldwork data to the subcategories derived from theory (STRAUSS; CORBIN, 1990), analyzing subcategories based on the reorganization of the evidence provided by NVivo.

The next section presents the quantitative stage of the research.

4.3 Quantitative Stage of Research

This third section of the method deals with the quantitative stage of this thesis. The idea was to explore the relationship between coopetition, formal institutions and international performance using a survey data in multiple industries. In this regard, are presented the research framework, the measurements of the model, the pre-test and survey, the data treatment, statistical analysis, and tests of the internal reliability of the scales.

4.3.1 *Quantitative stage*

The descriptive stage is quantitative. A prior scale of cooperation was developed trying to capture different strategies: competition in domestic market and cooperation in the international market or vice versa because these strategies can create a better international performance than competition or cooperation isolated. The increasing importance of cooperative strategies underlines the need to develop and adopt cooperation measurements (RAI, 2013). Therefore, the first step was to understand the dynamics and multifaceted factors of cooperation. Cooperation is not a permanent state of strategy for a firm. It is made up by movements following their competitors and the market. These movements can be premeditated or not, depending on the perception of the firm about the dynamics of the market. The second point is the conception that cooperation seems paradoxical relationship between firms. It is based on cooperative and competitive interactions in horizontal or vertical directions. Third, cooperation is a multidimensional concept that demands a view beyond cooperation and competition. Under these terms, formal institutions have a relevant role to understand this idea but have been researched deeply.

Fourth, the critical aspect is as about the cooperation to create value and the competition to divide this value. The difficulty of measuring cooperation is based on isolating the cooperation and competition strategies, considering the dynamism and the non-explicitly of these relationship strategies. At this point, not enough attention has been devoted to the aspects of boundaries between cooperation and competition among the actors involved with cooperation (CYGLER; SROKA, 2016). Cooperation refers to a context to analyze the simultaneity and intensity of cooperative and competitive strategies. The timing of cooperation and competition can be different depending on the dynamics of the relationships between the firms. Firms can cooperate and compete simultaneously (LUO, 2007; RITALA, 2009) at different points in time (CHIEN; PENG, 2005) or sequentially (GALVAGNO; GARAFFO, 2007; RITALA; WEGGMAN, 2011). In this thesis, to create a measurement instrument to evaluate cooperation, it is important to identify the intensity of the cooperation and competition strategies, especially when they occur simultaneously in different markets as domestic market and international market, influencing the international performance of the firms.

The next section resumes the research framework again.

4.3.2 *Research framework*

The research framework was presented in section 3.1 when it was related formal international performance (dependent variables) and institutions and cooperation (independent variables). Cooperation is the mediating variable in the formal institutions-international performance relationship. It was developed the quantitative instrument, in the first version, with 32 questions about cooperation, 11 questions about formal institutions and nine questions about international performance. However, cooperation was measured using questions about competition and cooperation in the domestic market and international marketing, with a total of 64 questions about this construct. The idea was to identify cooperation through balancing between competition in domestic market and cooperation international market and vice-versa. Similarly, the performance was measured in the domestic and international market, in a total of 18 questions for this construct. Measuring the performance in the domestic and international market in this step of data collection was chosen with the aim to enhance the developments of this research as it is suggested for future research at the end of this thesis. Thus, the questionnaire had 95 questions associated with the theoretical background and six demographic questions, with a total of 101 questions in the first version of this research instrument.

In current practice, most rating scales, including Likert-type scales and other attitude and opinion measures, contain either five or seven response categories (BEARDEN et al., 1993; PETER, 1979; SHAW; WRIGHT, 1967). The psychometric literature suggests that having more scale points is better, but there is a diminishing return after around 11 points (NUNNALLY, 1978). Having seven points tends to be a good balance between having enough points of discrimination without having to maintain too many response options. On the one hand, previous research has found that a five-point scale is readily comprehensible to respondents and enables them to express their views (MARTON-WILLIAMS, 1986) as well as the literature suggests that five-point scale appears to be less confusing and to increase response rate (BABAKUS; MANGOLD, 1992; DEVLIN et al., 1993; HAYES, 1993). On the other hand, research confirms that data from Likert items – and those with similar rating scales – becomes significantly less accurate when the number of scale points drops below five or above seven. Therefore, in the light of findings, there is some support for seven-point scales, but the popularity of five-point scales seems to be less justified (PRESTON; COLMAN, 2000).

The next section presents the measurements of the model of the research.

4.3.3 *Measurements of the model*

In this thesis, a scale of coopetition measuring the intensity of this relationship strategy was developed. In this research, the instrument included questions about formal institutions, coopetition, and international performance aiming to also evaluate these dimensions. Formal institutions and international performance already have consolidated questions in the literature. Coopetition was measured considering the balancing between competition in domestic market and cooperation international market and vice versa.

Thus, to identify the coopetition in this study, a scale was created that measured the degree to which a firm compete or cooperate in different markets (whether domestic and international). A Likert scale was used to assess the degree of agreement of the firms' representatives with the statements that indicated their degree of agreement with attitudes of cooperation in these two markets. Considering the median found, the firms were divided into groups. Above average values indicated cooperative behaviors, while below-average values indicated competitive behaviors. In these terms, firms competing in the domestic market and cooperating in the international market and vice versa accounted for coopetitive behavior, which is the focus of this study.

The detailed measurements of all constructs are in Appendix C.

4.3.3.1 *Dependent Variables*

International Performance (INTPER): International performance was measured using existing variables in the literature. One approach for classifying SME export performance is to classify performance regarding non-economic and economic results (KATSIKEAS et al., 2000). Non-economic results can play a key role in the creation of economic results intermediaries since the international performance is a multifaceted phenomenon (GONZALEZ-PEREZ et al., 2016). Intensity, regarding international business, is often measured as the share of total sales sold in foreign markets. It distinguishes firms that are mainly domestic even when exporting eventually from firms that rely on foreign sales for their revenues. Moreover, the geographic scope reports another measurement of international focus (LOPEZ et al., 2008). Once associated with these indicators, it was considered using the number of clients in the international market and part of EXPERF scale. Zou et al. (1998) proposed the EXPERF scale, which has three dimensions: (a) financial performance; (b) strategic performance; and (c) satisfaction with the performance of international operations. In

this sense, the following variables were used: financial performance, strategic performance, and satisfaction with the performance of international operations to represent international performance.

4.3.3.2 Independent Variable

Formal Institutions (FORINS): Formal institutions were measured starting from a combination of institutions and networks in emerging economies. In this way, there is a need to understand the landscape for domestic and internationalized firms in emerging countries (DE CLERCQ et al., 2010). The purpose of this thesis also includes understanding the adherence of firms to formal institutions in each industry with the participation in meetings, events, fairs and support of these institutions to firms in the internationalization project each industry. It is important to clarify that this research is based on formal institutions that support the internationalization of the firms. Therefore, the starting point was scales used by Pla-Barber and Escribá-Esteve (2006) and He and Wei (2013). However, more questions were developed to try to show variables as learning, cost reduction, the creation of intelligence and business internationalization with the support of the formal institutions. In this case, the idea is to rather further the concept of the formal institutions than only measuring networks and connections with industrial agencies or bureaus in various levels of the government.

Coopetition (COODOM and COOINT): Coopetition is the mediating variable in the formal institutions-international performance relationship. Coopetition was measured separately regarding the strategies of competition and cooperation in domestic (COODOM) and international markets (COOINT).

The purpose was to understand the intensity of the coopetition, by using the markets to capture this strategy since it is not explicit. This construct can be explained as axis when competition and cooperation are noted in domestic and international markets simultaneously, but with opposite strategies between markets. Thus, dummies variables were incorporated to identify the competition, cooperation, and coopetition among firms in the same industry.

The first dummy variable (COOP) represents the firms that showed cooperative behavior and are the firms of reference in the test of the hypotheses. The second dummy variable (COMP) represent the firms with competitive behavior in the domestic and international market.

In these terms, some questions based on constructs were developed, such as sharing objectives, transferring knowledge, identifying complementarities in the industry (CHOI et

al., 2009), and reciprocity (MUIJS; RUMYANTSEVA, 2014), and trust (MORRIS et al., 2007; PERERA et al., 2015). The questions about cooptation were developed based on seven variables: i) market, ii) performance, iii) compromise, iv) mutual benefits, v) knowledge and innovation, iv) trust, and vii) strategy. However, after the pre-test, the questions of the variable performance were removed because they showed low application power.

In this sense, there are different possible strategic behaviors of the firms (Table 8):

Table 8: Possible strategic behaviors

	Domestic Market	International Market	Interaction Result
1	Competition	Cooperation	Coopetition
2	Competition	Competition	Competition
3	Cooperation	Cooperation	Cooperation
4	Cooperation	Competition	Coopetition

Source: the author (2017).

The preliminary idea is that coopetition is based on competition in domestic market and cooperation in international market generates better results than other strategic behaviors as competition (example 2) and cooperation (example 3) in the domestic and international market. Similarly, it is believed that, empirically, cooperation in domestic market and competition in the international market (example 4) is less probable than the competition in domestic market and cooperation in the international market (1) because firms help together to internationalize and to compete with other foreign competitors. However, this strategic behavior may also occur and is being considered in the study as coopetition.

4.3.3.3 Control Variables

In this thesis, the following were used as control variables: a) firm age; b) international experience of the firm regarding time; c) international experience of the firm regarding number of countries; d) international experience of the firm regarding the share among revenues in domestic and international market; e) size of the firm in terms of number of employees; f) size of the firm in terms of revenues. This kind of industry permits to identify heterogeneity of resources, innovation, the degree of internationalization and development and adherence to formal institutions. The firm size is related to the potential to access resources and markets, besides the negotiation power with other firms in the cooperation and competition strategies. SMEs normally show fewer resources access and markets when compared with large companies (MUSTEEN et al., 2010). The experience of the firms, in domestic or international markets, leads to a greater commitment to the market and learning

(JOHANSON; VAHLNE, 2003). The scope of countries through internationalization could enable firms to access a wider range of resources available in different markets, establishing relationships with global stakeholders, redefining strategies and improving opportunities (KAFOUROS et al., 2008).

The next section presents the development of the pre-test in this research.

4.3.4 Pre-test

There is still a concern with the reliability and validity of the variables. Regarding reliability, the goal was to test if the same event is measured when the sample varies, that is if the results of the scale are stable and consistent. Regarding validity, the objective was to evaluate how well the scale measures the construct that intends to measure. At this point, this research addressed the content validity (theoretical consistency), face validity (practical to the respondent) and discriminant validity (the relationship between two measures designed to measure similar but conceptually different constructs) (NETEMEYER et al., 2003).

In these terms, the following are necessary: 1st) detailed literature review to gather variables and constructs of cooperation, competition, and coopetition; 2nd) designing of questionnaire (Appendix D); 3rd) pre-tests to improve and to assess the content validity; 4th) revision of the questionnaire; 5th) redesign of the questionnaire according to the results of the pre-tests; 6th) administration of the questionnaire and data collection; 7th) scale purification and assessment of dimensionality and reliability; 8th) scale construction and validation using post hoc tests.

At this stage, the questionnaire was submitted to pre-test with three practitioners of the industries selected and three professors of topics researched to validate it. The main suggestions made and accepted in this step were: i) the terms that were not clear were changed, mainly those related to the coopetition variable, specifically in the questions about trust, resource sharing, actions to improve the financial performance, and dependency on the competitor; ii) precise definition and mentioning of the formal institutions in each question about that variable; iii) the heading was changed to be more clear which questions were related to the performance in the domestic market and the international market; iv) removal of redundant questions in the coopetition variable; v) the number of questions was reduced since the questionnaire was considered too long, mainly because it was an aural research instrument, that is, it was applied by phone, which meant the respondent would try to please the researcher due to a cognitive bias. Moreover, it was considered the translation to the

Portuguese language without losing intrinsic meaning that could affect the results. At this point, reverse translation and standardization of question were performed with the aim to avoid misunderstandings and reverse questions.

In addition, a statistical pre-test with 30 firms of the footwear and winery industries was applied aiming to improve the scales and to identify the correlation between the variables. In the first week of July, the results of this preliminary collection were analyzed. For purposes of testing, whether the sample is statistically valid, a one-dimensionality factor test was applied to the questions about the coopetition construct since the other scales are already regularly used in other studies. The internal reliability of scales was performed by Cronbach's alpha, composite reliability, and extracted variance of constructs.

Lastly, the total quantitative research instrument included 56 questions associated with the theoretical background and ten demographical questions, as the segmentation in Table 9 shows.

Table 9: Questions

Variable	Objective	Quantity of questions
Coopetition in domestic market	Measuring coopetition considering the dynamics of competition and cooperation in domestic market	14
Formal institutions	Analyze the influence of formal institutions on the relationship between coopetition and international performance	10
Domestic performance	Measuring domestic performance based on Zou et al. (1998)	9
Coopetition in international market	Measuring coopetition considering the dynamics of competition and cooperation in international market	14
International Performance	Measuring international performance based on Zou et al. (1998)	9
Demographic questions	Describing the sample	10
Total of questions		56

Source: the author (2017).

The next section presents the survey application of this research.

4.3.5 Survey application

A survey was applied to internationalized firms in a multi-industry. In IT industry, linked to the Associação das Empresas Brasileiras de Tecnologia da Informação (Association of Brazilian Information Technology Companies, ASSESPRO), there are around 1.500 firms in the Brazilian level, and 200 firms in the Rio Grande do Sul State level (ASSESPRO-RS, 2016). In the footwear industry, there are about 7,7 thousand firms in the Brazilian level, and

2,800 firms in the Rio Grande do Sul State level (ABICALÇADOS, 2016), and in the wine industry, there are more than 1,1 thousand wineries (IBRAVIN, 2016), but the majority is focused on domestic market because are familiar business or SME's. These industries were chosen because of the accessibility criterion and due to differences in heterogeneity, internationalization level, cooperative interactions, the influence of the formal institutions, and learning curves. Regarding the geographical coverage, the survey will be applied in IT and footwear industries in Brazil, but some industries are more prevalent in some regions, as wineries and footwear in the Rio Grande do Sul.

This study was carried out by telephone by the Centro de Estudos de Pesquisa em Administração da Universidade Federal do Rio Grande do Sul during June, July, and August in 2017. The lists of the firms include the websites of Ministry of Industry, Foreign Trade and Services, lists bought from the Federation of Industries of Rio Grande do Sul and Paraná, unions of the industries specified in other studies, trade associations, integrated sector projects, such as Brazilian Footwear, Wines of Brasil, Brazil It+, and lists from other studies from the research group to which this thesis is related. In total, four people from a professional team performed phone calls to about 2.492 potential respondents, with 1.981 being IT firms, 252 wineries, and 259 footwear firms. At this point, the excluding filter was if the firm was internationalized or not, thus considerably reducing the sample in each industry. In the end, the data collection included 54 IT firms, 37 wineries, and 75 footwear firms, having a total of 166 firms. Thus, this return index achieved 6.66% of potential responses, with 2.72% being IT firms, 14.68% wineries, and 28.96% footwear firms. Lastly, after the data collection, some results are rechecked through contact of the respondents to check the reliability of the aural research.

The next section presents the data treatment of this research.

4.3.6 Data Treatment

Before applying any data analysis technique, it was evaluated the fit of the sample data with statistical assumptions of the technique adopted. Careful analysis of the data leads to better forecasting and more accurate assessment of dimensionality (HAIR JR. et al., 2009). Thus, the data went through the following treatments before being analyzed:

Missing values: the missing values can affect the generality of the results. In this sense, it was analyzed the reasons for the existence of missing values (HAIR JR. et al., 2009)

and it was taken care to not exceed a range of 5% to 10% of the random responses to a variable (KLINE, 2005).

Outliers: based on verification of respondents who show patterns of contradictory answers of others (KLINE, 2005) exceeding more than two deviations from the mean (MAROCO, 2010).

Normality: skewness and kurtosis values assess normality index using Kolmogorov-Smirnov or Jarque-Bera test. Data must have a distribution corresponding to a normal distribution (HAIR JR. et al., 2009). Variables should be $|10|$ for skewness and $|3|$ for kurtosis (KLINE, 2005).

Homoscedasticity: refers to the assumption that the dependent variables exhibit equal variance levels over the domain of predictive variables. If the dependent variables have equal variance levels across the prediction scale, the residual variance must be constant. It is common use graphs or statistical tests to conduct this treatment as Pesaran-Pesaran, Quandt-Goldfeld, Glejser or Park (HAIR JR. et al., 2009).

Linearity: represents the degree to which the variation in the dependent variable is associated with the independent variable. The most common way to assess linearity is to examine the scatter plots of the variables and identify nonlinear patterns in the data (HAIR JR. et al., 2009).

Multicollinearity: occurs when the independent variables are highly correlated with each other (FIELD, 2013). If multicollinearity is high, substantial loss of power may occur due to error association (GANZACH, 1998). The relationship among variable over $|0.85|$ indicates that there is a possible multicollinearity (HAIR JR. et al., 2009).

The next section presents the introduction to the statistical analysis applied in this research.

4.3.7 Statistical Analysis

To analyze the results, the quantitative stage of investigation aimed to adopt multiple regression analysis tests due to a reduced sample size. When there is a set of variables that relate to each other, it is recommended to adopt a multiple regression analysis (DANCEY; REIDY, 2006). The key idea of the multiple regression analysis is the statistic dependence of a variable about two or more independent variables. The main objectives are: a) to find a causal relationship between the variables; b) to estimate the values of the dependent variable from the values known or set of the independent variables.

This research adopted the Statistical Package for Social Sciences (SPSS) software, version 21, to make tests using multiple regression analysis. In this sense, multiple regression analysis is a statistical technique used to analyze the relationship between a single dependent variable and many independent variables with the aim to identify the values of the dependent variable through the previously known values of the independent variables (HAIR JR. et al., 2009).

In the next chapter, it is presented the characterization of the industries.

5 CHARACTERIZATION OF THE INDUSTRIES

As mentioned above, this study comprehended different industries that were chosen because of their different levels of economic representativeness, internationalization, the influence of formal institutions, cooperation strategies, labor intensity, and focus on the product or service. In these terms, the industries are now presented, starting with the footwear industry in the next section.

5.1 Footwear Industry

The Brazilian footwear industry, specifically that located in the State of Rio Grande do Sul, is started with the first German immigrants in 1824. They brought with them the ability to work with leather, which is associated with the abundance of raw material due to livestock and production of jerked beef (COSTA, 2004). However, the production was aimed at the domestic market until the end of the 60's, mainly through clusters in Vale dos Sinos (State of Rio Grande do Sul) and in Franca (State of São Paulo). These clusters were marked by economies of scale, artisanal manufacturing methods, product heterogeneity, and specialization in the division of labor through small and medium-sized firms (COSTA; FROEHLICH, 2007).

Afterwards, the first sales to the international market took place in 1968 due to the displacement of production costs from developed countries to peripheral countries. The peripheral countries offer abundant and cheaper labor, mainly Brazil, South Korea, and Taiwan, but only work with outsourced production capacity and do not participate in the design, final marketing, marketing, and final price definition of the product. During this period, Brazilian firms, which were focused on having low costs, served mainly North American customers at the expense of Spanish, Italian, and other customers (COSTA, 2010).

The Brazilian footwear industry, despite being successful, presented vulnerabilities such as dependence on foreign intermediaries and state protectionism, mainly regarding the exchange and tariff and non-tariff barriers (CARVALHO; ROCHA, 1998). The third period of the Brazilian footwear industry is marked by the decline of international trade operations in the 1980s. Some developed countries have shifted their production to countries with cheaper labor, fiscal and financial incentives, and more attractive foreign exchange policies, notably China, India, Vietnam, and Indonesia, which continues to this day (Table 10). This competitive pressure was faced by firms that sought fiscal and financial incentives to

reallocate their productive units in the domestic market, mainly to Ceará and Bahia, thus causing a "fiscal war" (COSTA, 2010).

Table 10: Annual report on the footwear industry (millions of pairs).

Country	2012	2013	2014 ↓	Variation 2013-2014		
China	10,610	11,353	11,693		3.0%	
India	2,350	2,480	2,579		4.0%	
Brazil	999	1,036	998		-3.7%	
Vietnam	735	779	854		9.6%	
Indonesia	688	695	715		2.9%	
Nigeria	372	384	393		2.3%	
Pakistan	235	237	245		3.4%	
Mexico	270	266	240		-9.8%	
Thailand	221	221	222		0.5%	
Italy	198	202	197		-2.5%	
Others	2,142	2,229	1,982		-11.1%	
Total	18,820	19,882	20,118		1.2%	

Source: Abicalçados (2016).

The Brazilian footwear industry includes about 7,700 firms and 300,000 jobs. In 2016, Brazilian firms produced circa 944 million pairs and exported 126 million pairs of footwear, thus generating USD 1 billion in exports. Brazilian firms exported to more than 150 countries, with the main buyers being from the United States, Argentina, France, and Paraguay (Table 11) (ABICALÇADOS, 2016).

Table 11: Brazilian footwear industry (in US\$ millions)

Country	2014	2015	2016 ↓	Variation 2015-2016		
United States	193.7	191.9	221.3		15.3%	
Argentina	81.7	67.5	111.6		65.4%	
France	70.1	54.9	56.0		2.0%	
Paraguay	55.3	45.3	47.4		4.7%	
Bolivia	46.5	49.6	45.5		-8.3%	
Colombia	48.7	41.1	42.3		2.9%	
Peru	27.1	28.1	34.3		22.1%	
Chile	31.1	31.1	33.3		7.1%	
United Kingdom	24.4	25.0	30.6		22.4%	
Australia	27.2	27.3	18.9		-30.9%	
Others	461.6	398.6	356.7		-10.5%	
Total	1,067.2	960.4	998.0		3.9%	

Source: Brasil, 2017.

In the domestic market, the main production poles are: i) Northeast region (58.2% of the production), mainly in the States of Ceará and Bahia; ii) Southern region (22.6% of the production), mainly in the State of Rio Grande do Sul (Vale do Sinos and Vale do Paranhana/Encosta da Serra poles); iii) Southeast region (18.4% of the production), mainly in the States of Minas Gerais and São Paulo (Nova Serrana, Birigui, and Franca poles). (ABICALÇADOS, 2016). In the Northeast, unlike other regions of the country, despite a

greater concentration of national production, no clusters were created, to avoid the greater bargaining power of entrepreneurs against local governments. This production is distributed especially in plastic and rubber footwear, followed by synthetic laminated footwear instead of leather footwear (Figure 10).

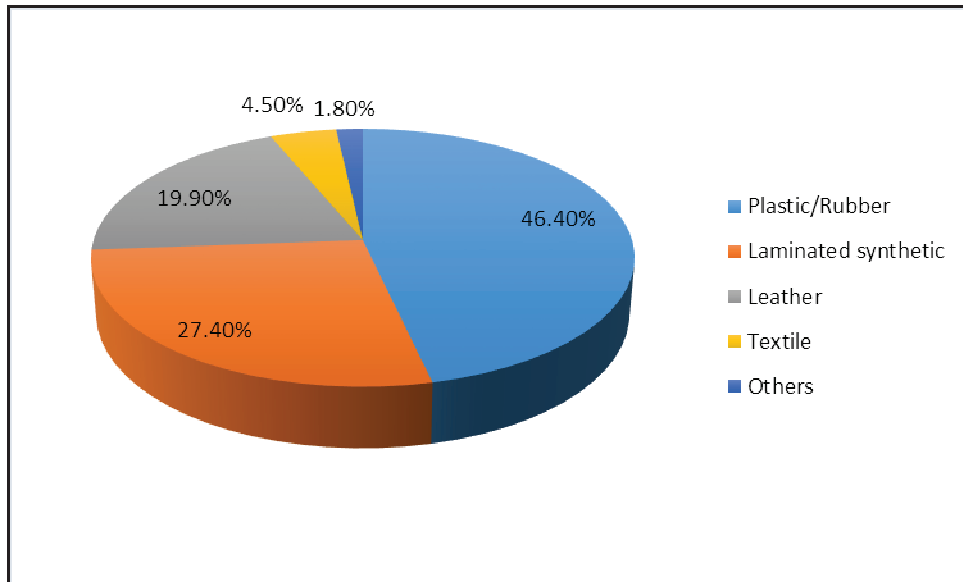


Figure 10: Material used in the footwear production in Brazil (Participation in 2016).
Source: Abicalçados (2016).

The footwear manufacturing is also mostly concentrated in women's footwear, followed by men's and children's footwear (Figure 11).

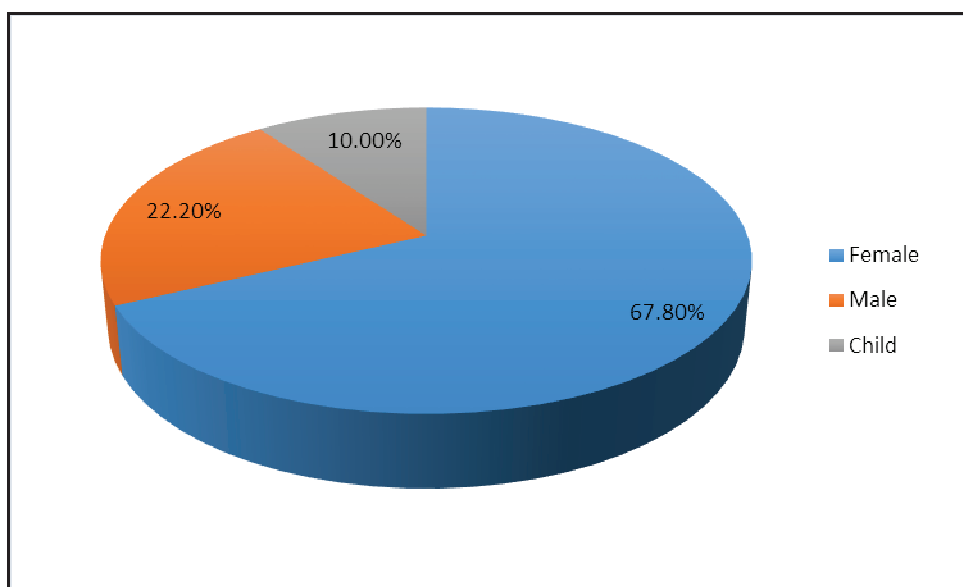


Figure 11: Footwear production according to gender (Participation in 2016).
Source: Abicalçados (2016).

In addition, there is a similar distribution of sandals and casual or social shoes, as shown in Figure 12.

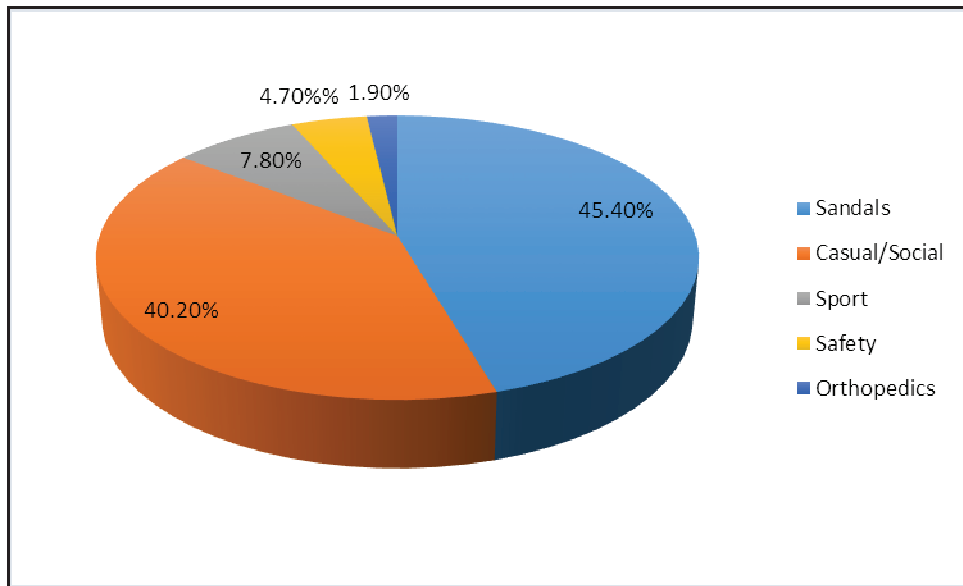


Figure 12: Brazilian production according to the type of footwear (Participation in 2016).
Source: Abicalçados (2016).

Therefore, after analyzing the data of the Brazilian footwear industry, a targeting of production of footwear with low added value, mainly of plastic or rubber footwear and slippers is observed. In this case, the focus of Brazilian firms is on low-cost footwear, not brands. It is a low-tech, labor-intensive industry that moves according to the availability of human resources and studios. Innovation occurs through materials and equipment (for which the firm is not responsible), as well as design and style innovation and organizational innovation. As the labor has a low qualification and low cost, there is no incentive for the technological replacement of labor for innovation. It has a perfect competition model with low entry barriers (PORTER, 1985) where the supply chain is led by a supplier.

Production has been directed to the United States and South America through the advantages obtained from the cheap and specialized labor of the firms, as well as the gains of externalities with the clusters. Thus, another industry that is similarly organized is the wineries, which is analyzed in the next section.

5.1.1 Wine industry

The wine was first produced in Brazil in 1875 when Italian immigrants arrived in the Rio Grande do Sul. Italian immigrants who arrived in the Rio Grande do Sul in 1875 onwards

found the most fertile and easily accessible and cultivable lands already inhabited by the German peoples, who had been granted free concession of their lots, and Azorean peoples, who settled mainly in the region of the Vale dos Sinos and where is located the State capital. Therefore, considering their vocation and experience in grape growing and wine production, they chose the more mountainous regions, difficult to reach and manage, but with a more favorable weather for winemaking (MOURE, 1980; BARROSO, 1992). In general, the history of the Brazilian wine industry is divided as the following: i) from 1875 to 1915 directed to the family consumption; ii) in 1915 the products started to be delivered at a national level; iii) in the 1960s and 1970s the first internationalization processes took place with the penetration of foreign firms in the Brazilian market, such as Martini & Rossi, Moët & Chandon, and National Distiller; iv) since the 1990s there are greater investments in technology, administration, and marketing professionalization, making it possible to internationalize the Gaucho wineries (FARIAS, 2008; TONIETTO; MILAN, 2003; TERUCHKIN, 2005).

Brazil is one of the countries in a group of wine-producing countries known as “New World”, along with Argentina, Chile, South Africa, the United States and others, but it still struggles for its products to receive global recognition. The Brazilian government’s strategic agenda for the wines, grapes and derivatives industry is oriented towards promoting the internationalization of firms and their products through export incentives, participation in international events, and expansion of the role of the institutions that are active in the industry. According to the OIV (2016) and the FAO (2015), Brazil is ranked 21st globally as a producer (Table 12), and 16th regarding area under cultivation, 28th among exporters and 20th as an importer of wines.

Table 12: 2016 wine production in the main producing countries (excluding juice and musts)

Unit: mhl	2011	2012	2013	2014	2015 Provisional	2016 Forecast	2016/2015 Variation in volume	2016/2015 Variation in %	Ranking
Italy	42.8	45.6	54.0	44.2	50.0	48.8	-1.2	-2%	1
France	50.8	41.5	42.1	46.5	47.4	41.9	-5.7	-12%	2
Spain	33.4	31.1	45.3	39.5	37.3	37.8	0.5	1%	3
United States	19.1	21.7	23.6	23.7	22.1	22.5	0.5	2%	4
Australia	11.2	12.3	12.3	11.9	11.9	12.5	0.6	5%	5
China*	13.2	13.8	11.1	11.1	11.5	11.5	0.0	0%	6
South Africa	9.7	10.6	11.0	11.5	11.2	10.5	-0.7	-7%	7
Chile	10.5	12.6	12.8	10.5	12.9	10.1	-2.7	-21%	8
Argentina	15.5	11.8	15.0	15.2	13.4	8.8	-4.6	-35%	9
Germany	9.1	9.0	8.4	9.2	8.8	8.4	-0.4	-4%	10
Portugal	5.6	6.3	6.2	6.2	7.0	5.6	-1.4	-20%	11
Russia*	7.0	6.2	5.3	4.9	4.9	4.9	0.0	0%	12
Romania	4.1	3.3	5.1	3.7	3.5	4.9	1.3	37%	13
New Zealand	2.4	1.9	2.5	3.2	2.3	3.1	0.8	34%	14
Hungary	2.8	1.8	2.6	2.6	2.9	2.7	-0.2	-6%	15
Greece	2.8	3.1	3.3	2.8	2.5	2.6	0.0	2%	16
Serbia*	2.2	2.2	2.3	2.3	2.3	2.3	0.0	0%	17
Austria	2.8	2.1	2.4	2.0	2.3	1.8	-0.5	-21%	18
Georgia*	1.1	0.8	1.0	1.1	1.7	1.7	0.0	0%	19
Moldova*	1.5	1.5	2.6	1.6	1.7	1.7	0.0	0%	20
Brazil*	3.5	3.0	2.7	2.7	2.8	1.4	-1.4	-50%	21
Bulgaria	1.1	1.3	1.8	0.8	1.3	1.3	0.0	1%	22
OIV World Total⁽³⁾	267.7	258.1	288.9	270.8	274.4	259.5	-15.0	-5%	

(1): Countries for which information has been provided with a wine production of more than 1 mhl

(3): OIV estimate: mid-range estimate Range for evaluation of 2016 world production: from 255.0 mhl to 264.0 mhl.

* Report for the year 2015, 2016 figures not yet available

Source: OIV (2016).

The Brazilian wine industry is highly fragmented regarding the number of competitors but relatively concentrated regarding production capacity. Competition has historically been price-based, and it was only after creation and promotion of an identity for Brazilian wine abroad that the industry began to compete by product differentiation. However, there are still many obstacles hampering Brazilian wineries' international competitiveness: i) macroeconomic problems (changes to macroeconomic policies, exchange rates); ii) climatic difficulties (increasing average annual rainfall, and elevated air humidity); iii) difficulties with coordination (high degree of industrial fragmentation with many small firms and a high number of formal representative institutions in the industry) (FARIAS, 2011).

Currently, there are around 1000 firms in the Brazilian wine industry, the majority of which are small family properties, with a mean area of 2 hectares per property, concentrating on craft wines or table wines. Only 150 firms produce fine wines (WINES OF BRASIL, 2017). The Brazilian wine industry is influenced by a large number of formal institutions that have consolidated over the years and were created to foster growth in the industry, to fill large gaps in knowledge, techniques, regulations, legislation, markets, and other elements.

There is stability in the proportion of table wines, with lower added value (based on American and hybrid grapes) and fine wines (based on wine grapes). In 2015, for example, from about 703,000 tons of grapes, about 633,000 tons were of American and hybrid grapes, destined for the production of table wines, juices, and derivatives (ANUÁRIO BRASILEIRO

DA UVA, 2016). In 2017, from 751,000 tons of grapes, about 673,000 tons were destined for the production of table wines, grape juices, and derivatives (VEM DA UVA, 2017). In these terms, in 2015, the wine grapes – grown for fine wines – accounted for about 70,000 tons or 11% of the domestic production. In 2017, they accounted for 10.4% but 78.000 tons in absolute terms. This proportion is reflected in the per capita consumption in Brazil, which is still low: 1,7 liters, but only 0,6 liters being of fine wines (ANUÁRIO BRASILEIRO DA UVA, 2016). Next, the main buyers of the Brazilian wines in the previous year are shown in Table 13.

Table 13: Ranking of buying countries in 2016

	Volume	Value US\$	US\$/L
1° Paraguay	331,303	510,717.00	1.54
2° United States	144,751	444,673.00	3.07
3° United Kingdom	83,306	335,416.00	4.03
4° Colombia	111,590	278,976.00	2.50
5° China	19,062	89,235.00	4.68
6° Finland	15,139	76,951.00	5.08
7° Germany	13,355	65,688.00	4.92
8° Canada	10,292	56,813.00	5.52
9° Japan	18,224	55,791.00	3.06
10° Bolivia	12,338	39,676.00	3.22

Source: Ibravin (2016).

In addition to the traditionally producing regions, such as the Gaucho Highlands, other producing poles are consolidated in the Rio Grande do Sul, the Vale do Rio São Francisco (between the states of Pernambuco and Bahia), the Vale do Rio do Peixe (Santa Catarina), east region of São Paulo, Paraná, and Minas Gerais. The wine production in the Rio Grande do Sul, which concentrates around 90% of the national production, is centralized in four regions: Gaucho Highlands, Southeast Highland, Campos de Cima da Serra, and Campanha. However, the Brazilian product that is highlighted in the international scenario is the sparkling drink that has about 85% of market-share (ANUÁRIO BRASILEIRO DA UVA, 2016).

Therefore, after analyzing the data of the Brazilian wine industry, a majority production of low-value wines with American and hybrid grapes is observed. However, these wines do not have penetration in the international market and, therefore, the firms producing

these wines are not the focus of this study. It is an industry that depends on labor for cultivation, handling, and harvesting, but it is not labor intensive as the footwear industry is. In this sense, on the one hand, the Brazilian wine industry has innovation and technological processes inserted in methods and production. These initiatives are consolidated through vertical structures of production, such as in the Campanha Gaúcha and Santa Catarina. On the other hand, the wine industry has low tariff barriers from a technical point of view, as technologies and knowledge are available and even encouraged by formal institutions to support this industry's development. Similarly, it is an industry that suffers pressure with the entry of foreign wines given the existence of low tariff barriers. Regarding the knowledge-based industry, the IT industry stands out most by this characteristic. Thus, this industry is analyzed in the next section.

5.1.2 Information Technology (IT) Industry

The Brazilian IT industry began its path in the 60s with the arrival of IBM and Burroughs subsidiaries, followed by DEC and Data General, responsible for data processing equipment (SCHMITZ; HEWITT, 1992). However, the first period began in the mid-1970s with the implementation of a nationalist policy by the military government, with the support of scientific researchers, to protect the Brazilian computer industry that was still incipient. Therefore, the market restricted imports of computers, peripherals, semiconductors, that is hardware, leaving the software's market free since it had little relevance (SOBRINHO, 1994). Even so, foreign MNEs, such as those that opened the Brazilian computing market, had the technology and refused to transfer to Brazilian firms without having majority ownership. However, from 1985 on, foreign MNEs began to make licensing agreements with Brazilian firms in order not to be excluded from the Brazilian market that was on the rise (SCHMITZ; HEWITT, 1992).

The second period occurs as a result of the market opening in the early 1990s, motivated by the high costs charged by Brazilian IT firms, the lagged technology offered by these firms, and the pressure of foreign firms to enter the Brazilian market (SCHMITZ, HEWITT, 1992). This new policy excluded the restrictions on foreign capital through fiscal incentives for local research and development, including software (GARCIA; ROSELINO, 2004).

The third stage occurs with the legislative changes, such as the Software Law, in 1987 and 1998, and the payroll exemption, in 2011. The Software Law aims to guarantee

intellectual property rights over software, by promoting actions against piracy. The payroll exemption was replacing taxes on the payroll for a taxation on their revenues, favoring firms with a larger number of employees and lower revenues, especially those that were more labor-intensive (hardware manufacturers) at the expense of the software manufacturers or service providers.

With the evolution and opening of the market, the national industry moved from informatics to information and communication technology, based on microelectronics, telecommunications, and computer science. The segments of the IT industry are: hardware, software, IT services (consulting, integration, support, training, and outsourcing) (GUTIERREZ, 2010). Brazil is actually at the 7th position in the IT ranking (Figure 13) which includes the production of hardware, software, and services (ABES, 2016).

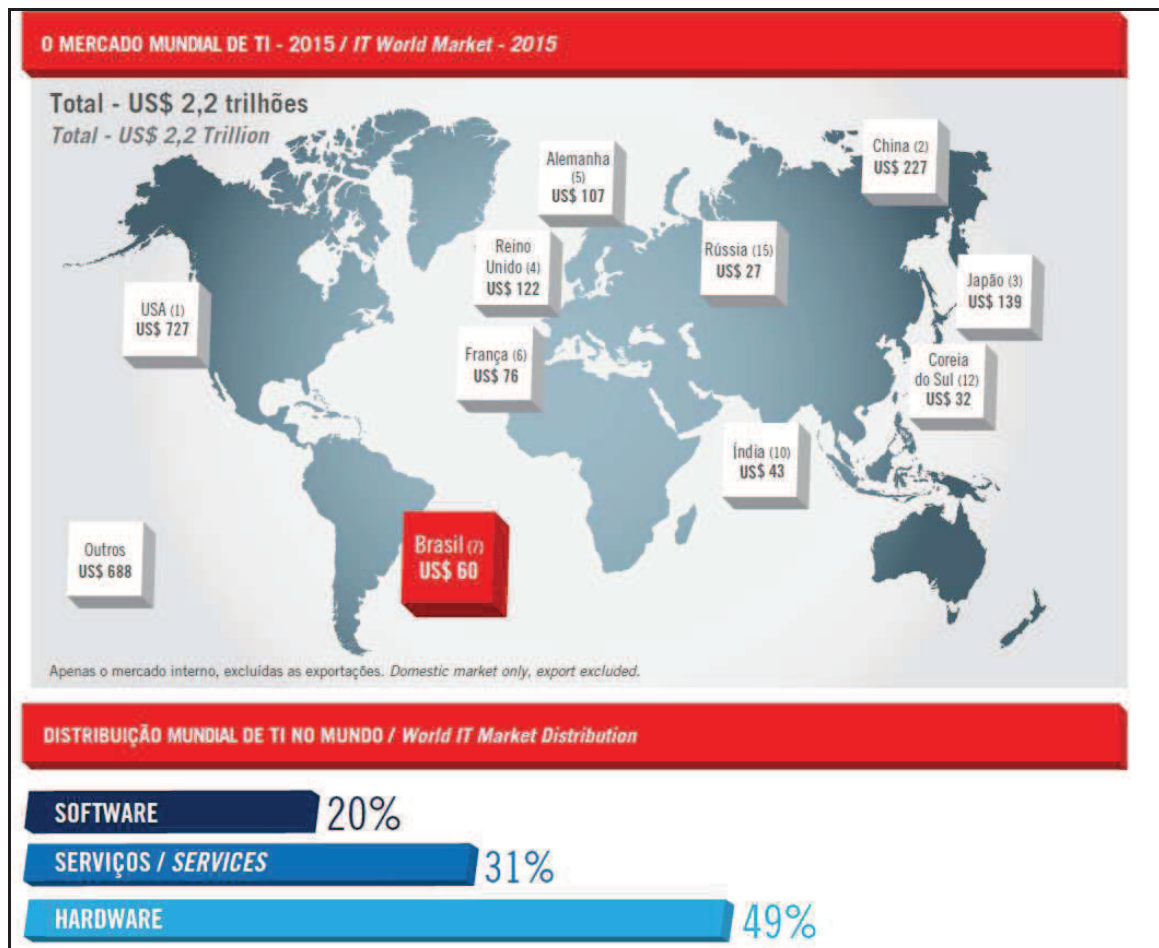


Figure 13: IT World Market 2015.
Source: ABES, 2016.

The domestic IT market moved \$ 60 billion, accounting for about 3.3% of Brazil's GDP and 2.7% of IT investments worldwide. Fifty-six percent correspond to the hardware

production and only a small portion of exports (Figure 14). Around 94% of those working with software production are classified as micro- and small firms following the number of employees' criterion (ABES, 2016). This result shows that there was no significant progress in the UNCTAD report (2012) which stated that 96% of SMEs in the Brazilian software industry has less than 20 employees. The other 4% accounted for more than 75% of the total revenue of the industry and 60% of the jobs (UNCTAD, 2012). In parallel, the low level of internationalization of the Brazilian IT industry is mainly motivated by reactive movements in which software and IT services firms follow the process of internationalization of national clients (GUTIERREZ, 2010).

MERCADO TOTAL DE TIC NO BRASIL - 2015 (US\$ MILHÕES) / Total ITC Market in Brazil - 2015 (US\$ Million)			
<i>Segmentação Mercado Market Segmentation</i>	<i>Mercado Doméstico Domestic Market</i>	<i>Mercado Exportação Export Market</i>	<i>Mercado Total Total Market</i>
<i>Software / Software</i>	12.337	245	12.582
<i>Serviços / Services</i>	14.300	680	14.980
<i>Hardware / Hardware</i>	33.386	267	33.653
SUBTOTAL TI / IT Subtotal	60.023	1.192	61.215
<i>Telecom / Telecom</i>	93.715	-	93.715
TOTAL TIC / ITC Total	153.738	1.192	154.930

Fonte: IDC/Source: IDC.

Figure 14: Total ITC Market in Brazil - 2015 (US\$ Million).
Source: ABES, 2916.

The Brazilian IT industry is predominantly concentrated in the Southeast region, with approximately 60% of the total level of production of hardware, software, and services. The Southern region appears next, with about 14%, and then the Midwest and Northeast regions have equally about 10% each. However, regardless of where the industry is concentrated, there is a distribution of the formal institutions in different states.

Therefore, after analyzing the Brazilian IT industry data, a concentration on the production of hardware is observed. In this case, the Brazilian IT industry is labor intensive and is currently migrating to knowledge intensive. Therefore, its matrix of products for software and services will have to be changed, thus generating innovation that is perceived by their customer. However, in the international market, it faces big players that compete for low costs, such as India and China.

In the next chapter, the results are analyzed, starting with the qualitative data.

6 ANALYSIS OF THE QUALITATIVE RESULTS

This chapter addresses the results from the collection of primary and secondary data, which were initially analyzed under the scope of previously defined categories of analysis. This chapter presents the qualitative results and analyses divided into subsections. At this point, there is the search for suitable explanations through the categories established a posteriori.

6.1 The relationships between the categories of analysis

At first, the *a priori* categories and guiding concepts of analysis, that is, based on theoretical references: i) introduction (characterization of the firm and the industry); ii) business strategies (competition, cooperation, and cooptation strategies); iii) role and influence of formal institutions (main formal institutions in each industry and their roles, influence or intervention of the government in each industry; iv) international performance of the firms; v) relevance of the cooptation relationship in the relationship between formal institutions and international performance. After the data collection and analysis, the categories and guiding concepts were validated or improved, arriving at the following *a posteriori* elements: i) characteristics of the industry; ii) strategies of competition and cooperation; iii) influence or intervention of the government in the industry; iv) role and influence of formal institutions; v) international performance of the firms; vi) strategies of the internationalization of the firms; vii) cooptation with the support of formal institutions; viii) relevance of the cooptation relationship in the relationship between formal institutions and international performance; ix) institutional barriers and incentives to industry (Table 14).

Table 14: A priori and a posteriori categories

A priori Categories	A posteriori Categories
Introduction	-
Business strategies	Characteristics of the industry Strategies of competition and cooperation
	Influence or intervention of the government in the industry
Role and influence of formal institutions	Role and influence of formal institutions
	Strategies of the internationalization of the firms International performance of the firms
International performance of the firms	Strategies of the internationalization of the firms International performance of the firms
Relevance of the cooperation relationship in the relationship between formal institutions and international performance	Cooperation with the support of formal institutions Relevance of the cooperation relationship in the relationship between formal institutions and international performance
-	Institutional barriers and incentives to industry

Source: the author (2017).

By this re-analysis, it was identified prevalent knots in the speech similarity analysis, with the aim of determining which topics stood out in each category. A cluster analysis using knots and research sources was made. Cluster analysis is an exploratory technique that aims to facilitate the visualization of projects using knots or sources with attributes, words, or similar knots. In this study, a horizontal dendrogram segmented by word similarity was used for both the knots and the sources. Figure 15 shows the reconfiguration of the *a posteriori* analysis categories.



Figure 15: Cluster by word similarity.

In the following section, it was presented the qualitative results based on data analysis.

6.2 Strategies of Competition and Cooperation

This section presents the competition and cooperation strategies. It is relevant to understand competition and cooperation separately because, in this research, cooperation

occurs when competition and cooperation are noted in domestic and international markets simultaneously, but with opposite strategies between markets.

Initially, it is relevant to consider the characteristics of each industry so that the competition and cooperation strategies adopted by the firms are analyzed. In this sense, the footwear industry, because it is labor intensive and based on the low-cost product, has more competition strategies than the cooperation ones. It is an industry competing for human resources and inputs (e.g., leather), forcing the competition to lead cooperation. The low-cost competition outperformed the externality gains at the Vale do Sinos in the Rio Grande do Sul, moving the firms to the Northeast of the country aiming at cheaper labor and inputs.

In general, footwear firms cooperate vertically, more with suppliers and distributors than with competitors, except when they are encouraged through institutional actions. In this case, firms compete with each other for similar aspects (e.g., selling to the customers) and cooperate with each other for complementary aspects (e.g., buying from the suppliers). This strategy is similar to The Value Net Model of Brandenburger and Nalebuff (1995) that presents the firm in a chain that adds value to the firm through environmental interaction with other participants in the chain as suppliers, customers, and competitors. However, the main reason for the competition strategy to prevail in the footwear industry is the opportunistic behavior risk. There is a high risk of the product being imitated, as there is a low protection for patents to implement a groundbreaking innovation (DORN et al., 2016). A specialist in this industry confirms this conclusion:

“They (firms in the footwear industry) cooperate in the upstream and downstream levels. I mean, they cooperate with the supplier and cooperate with the distributor. But they don’t cooperate with the competitor.”

Another specialist in the footwear industry goes back to the industry's history to explain the competitive behavior of the firms:

“I do not know whether it is cultural, or if it is a previous experience of the period when competition took place between large importers, the large export companies represented here, and perhaps there has created a more competitive system similar to the American model of competition. ” (Professor and representative of a firm in the supply chain)

The wine industry, although being labor intensive, has a low-cost product, but with some attempts to position it differently. Thus, because the product is based on a terroir¹, it hinders the attempts of opportunism based on imitating the competitors. This is shown in the interview with the former manager at Apex-Brasil, according to Monticelli (2013):

"wine is not the product, but a gastronomic experience. The professionalization of the wineries – in the third generation of the family – must understand that the wine is not a product, but the characteristics of the family. They cannot compete on price. The image must be developed. There should be the perception that they are not only selling a product but a brand." (former Relationship Manager of Brazilian Firms at Apex-Brasil)

Thus, cooperation strategies are encouraged by the externality gains in a cluster of each wine region, especially with the support of formal institutions. Cooperation allows firms to access more resources, in a shorter time, and with fewer risks than they would be able to access individually, facilitating their internationalization. However, cooperation occurs more by mimicry than by spontaneous actions, motivated by the imposition of large wineries, mainly cooperatives, with a tradition in production and technical area. The representative at Embrapa confirms this finding:

"The effort to promote the Brazilian wine, to create a 'country image' of the wine, and the Wine of Brasil's effort you mentioned earlier, to seek support from Apex and management support, to somehow be present in the major world wine fairs. I mean, so, in this perspective, I see a convergence that is relatively successful at this point. But, when it comes specifically to the spontaneous cooperation between the firms, I think there is much more to imitation than because of a philosophical conception of the typical Brazilian wine entrepreneur in this regard. " (Researcher, supervisor, and economist at Embrapa)

The IT industry presents discordant positions on competition and cooperation strategies. On the one hand, there is traditionally no indication of cooperation among firms due to the risks of opportunism and the desire to exploit any technological solution individually. A partner is rarely used, but in a category that could be considered more as subcontracting than as cooperation. The representative at Processor reinforces these characteristics of the IT industry:

¹ Terroir: concept that refers to a space in which a collective understanding of the interactions is developed between the physical and biological environment and the oenological practices applied, thus providing different features to products originated from this space (OIV, 2017).

“In the IT industry, they compete. There is no cooperation today. It is a very low cooperation rate. (...) There is no technological cooperation agreement in the IT sector. I myself at least never heard of any” (Sale Director at Processor)

On the other hand, because the market demands constant technological innovations and fast answers to the macro tendencies, cooperation is seen as an alternative through strategic alliances (DUSSAUGE; GARRETE, 1997). However, this type of strategy is more common among larger firms that aim to serve the international market, developing solutions not only between two firms but sometimes even among a pool of participants.

6.3 Influence or intervention of the government in the industry

In this subsection, the interviewees from all the industries gave the same answer regarding the role of the government: it should interfere as little as possible. However, the government plays many roles in each industry in general. In the footwear industry, there is a greater intervention through import tariffs for foreign footwear aiming to limit the competition of foreign firms. The Exportation Manager at Wirth confirms this practice in the domestic market:

“What we can still say today in the footwear area, there is still the dumping. (...) Because the day when there is no more dumping, then my friend, I don't know what's gonna happen.” (Exportation Manager at Wirth)

In the wine industry, the government operates more as an industry promotor through formal institutions. In the Rio Grande do Sul, which concentrates the largest production in the country, Fundovitis was created by the state government, as a specific source of resources to be applied for the existing deficiencies in the industry, especially in the inspection and planning of the supply chain (VOLTOLINI, 2013). In both footwear and wine industries, there is a perception that the government does not pay enough attention because there is little economic representation of the firms in the gross domestic product (GDP).

In the IT industry, the government works more timidly through formal institutions. Its main role is acting as a buying agent in the industry, but through more bureaucratic processes than in the private industry. At this point, some interviewees report this characteristic:

*“...it's the main buyer! 55% of the IT market is bought by the Government.”
(Service Vice-President at Meta Group)*

“It is an important buyer (about the government). Of course, you can't compare with the private industry where they are more... People from the government, if they leave after four years, "why didn't you buy this?". I think they have much more fear. I think it's complicated for a public manager to invest in technology, right?” (Head of Partner Services Delivery of Latin America at SAP)

“These policies of the Ministry of Development, I think they privilege any content that is developed internationally.” (Head of Partner Services Delivery of Latin America at SAP)

These data convergent, but in a larger scale, to the results reported by De Luca (2007), who confirmed that the government accounted for about 40% of all software purchases (licenses and services), but without considering hardware purchases. Consonant with the role of the government of being the buyer, it also carries out the taxation activities and public policies of the industry. However, by playing the role of the buyer, on the one hand, the government works as a technological inductor, thus establishing the investment of the firms in the IT industry. On the other hand, it created privileges and preferences for particular firms, inhibiting the free competition to exist (SUKARIE NETO, 2007).

6.4 Role and influence of formal institutions

All industries are characterized by a government representation through formal institutions that aim to promote the internationalization of the firms. However, the difference between the industries derives from the role that the key institution for the internationalization plays with the firms. According to the respondents, Brazilian Footwear assumes a more proponent character, representing firms from all over the country that perform the strategies proposed by the institution. Wines of Brasil, because it represents a smaller and more regionalized group, with the participation of other formal institutions in its management, plays a deliberative role in which the strategies are defined by the firms. Lastly, Brazil IT+ has a more premature character due to the heterogeneity of firms in the IT industry that results in a variety of products and services offered and in the different interests involved, also implying a low international representation in this industry.

In the footwear industry, the main formal institution is the Associação Brasileira da Indústria de Calçados (Abicalçados), which is responsible for representing the firms before

the media and the government; defending the trade agenda; developing the industry competitiveness; and promoting business opportunities and visibility for the firms. In this sense, the interviews show that Abicalçados promotes learning, networks, cost reduction, internationalization of the industry, and promotion of the national brand. The representative of the Wirth Calçados emphasizes the role of the main formal institution in the footwear industry:

“Yes, Abicalçados is the main one. (...) Besides participating in fairs, its role is to defend the sector before the government, dumping, such things, to defend the sector before the government. Now, in this case of exemption, trying to move in these aspects. Making these movements either through politics or politicians, trying to show what the sector is like. In the volume, if you look at the leather-footwear sector nationwide, it is very little.” (Exportation Manager at Wirth)

The government, in turn, uses agencies such as Apex-Brasil (Agência Brasileira de Promoção de Exportações e Investimentos) to promote international business; Sebrae (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas) and Senai (Serviço Nacional de Aprendizagem) to develop the technical training; ABDI (Agência Brasileira de Desenvolvimento Industrial) to develop the competitiveness of the industry; MRE (Ministry of Foreign Affairs), and MDIC (Ministry of Development, Industry and Foreign Trade). Regarding these formal institutions, the representative of Brazilian Footwear has the following perception:

“The Government, with its agencies, has to encourage competitiveness. Apex, for example, is a government agency focused on internationalization and exports. Sebrae is another Government agency, from System S, which has the bias to bring training, knowledge, and development to companies. ABDI, another government agency, is the Brazilian Agency of the Industry Development that would play the role of developing the Brazilian industries.” (Project Manager at the Brazilian Footwear)

“But there are many like them. The government ministries, the Ministry of Industry Development. The Ministry of Science and Technology, which we have now got closer. The Ministry of Foreign Affairs, which is the ministry where Apex is now situated. Before it was under the MDIC. All of them have a very important political influence for the sector. However, again, it is much more a question of sectors proactively approaching and articulating with the government to show the importance of the sector to the economy and the country's development, than necessarily developing strategic lines that are being addressed from here to here. ” (Project Manager at the Brazilian Footwear)

Besides the formal institutions mentioned before, other two were also frequent in the interviews: Associação Brasileira de Empresas de Componentes para Couro, Calçados e Artefatos (Assintecal) and Instituto Brasileiro de Tecnologia do Couro (IBTeC). Assintecal is linked to the supply chain and carries out the promotion of national materials and components, to protect the Brazilian industry. IBTeC is responsible for technological solutions through research and certifications aimed at giving competitiveness to the industry. One of the specialists in the footwear industry mentions this effort of the formal institutions:

“We see some good practices usually based on Abicalçados and Assintecal. Maybe Assintecal has a more prominent role today in this situation of converging efforts regarding the industry. Because they aggregate, promote events, have courses, lectures, in which these firms come together to analyze certain markets.”

However, some criticism affects the relevant work of Brazilian Footwear and Abicalçados. Some firms believe that it is a very closed group, difficult to be part of, in which only the big firms determine the strategies.

The organogram in Figure 16 illustrates the structure of the footwear industry, subdividing formal institutions into institutions of collective interest (BENNETT, 1998) and institutions of real services (BELLINI, 2000). Institutions of collective interest are based on the voluntary grouping among its participants who seek collective actions that generate benefits to all its members. The main examples of institutions of collective interest are the business associations that represent their interests before the government as tax reduction or increase the competitiveness of the industry. Real service institutions, in turn, are responsible for disseminating best practices within the industry, such as support services, consulting, industrial extension institutes (COSTA, 2009). In the footwear industry, I can relate formal institutions such as Abicalçados, Assintecal, and ACI as institutions of collective interest. The institutions of real services are Senai, Sebrae, and IBTeC.

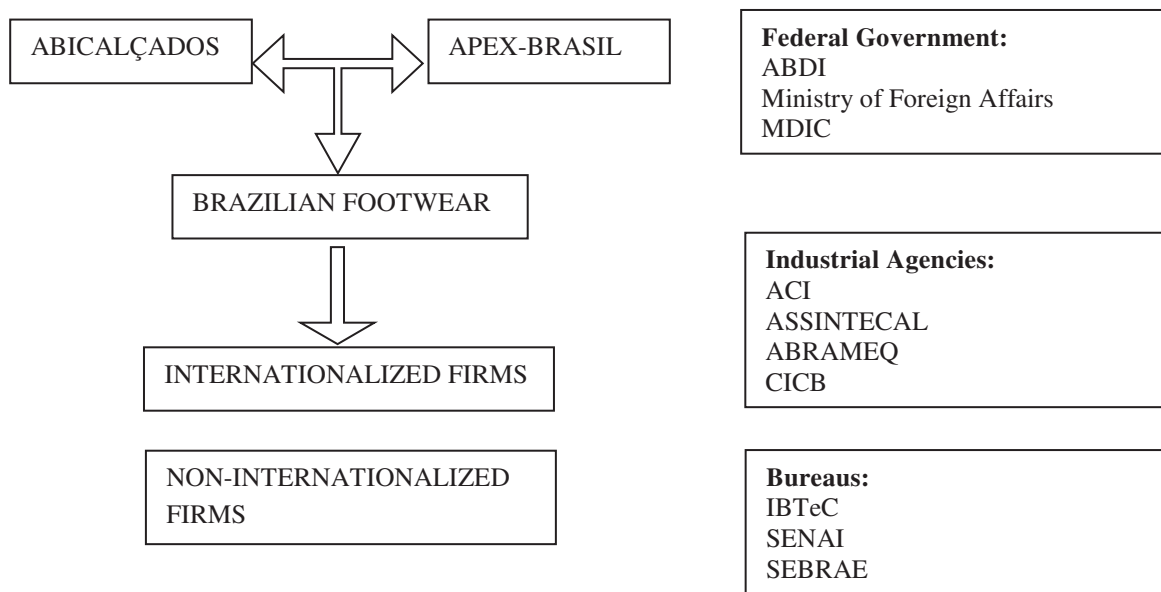


Figure 16: Brazilian footwear industry.

ABICALÇADOS, Associação Brasileira das Indústrias do Calçado; ABDI, Agência Brasil de Desenho Industrial; ABRAMEQ, Associação Brasileira das Indústrias de Máquinas e Equipamentos para os Setores do Couro, Calçados e Afins; ACI, Associação Comercial, Industrial e de Serviços de Novo Hamburgo, Campo Bom e Estância Velha; APEX-Brasil, Agência Brasileira de Promoção de Exportações e Investimentos; ASSINTECAL, Associação Brasileira de Empresas de Componentes para Couro, Calçados e Artefatos; CICB, Centro das Indústrias de Curtumes do Brasil; IBTeC, Instituto Brasileiro de Tecnologia do Couro, Calçado e Artefatos; MDIC, Ministério da Indústria, Comércio Exterior e Serviços; SEBRAE, Serviço Brasileiro de Apoio às Micro e Pequenas Empresas; SENAI, Serviço Nacional de Aprendizagem Industrial.

In the wine industry, the Instituto Brasileiro do Vinho (Ibravin) is the main formal institution, which is responsible for the organization and coordination of the industry and represents the firms before the government and centralizes the Wines of Brasil project. In addition, Ibravin aims to reposition the Brazilian wine in the domestic and international market through Wines of Brasil that fosters the image of the Brazilian wine in the foreign market. However, there is the understanding that without the financial support of Apex-Brasil would be impossible to support Wines of Brasil. The reports of the representatives of the wineries show the main formal institutions of the wine industry:

“Today is Ibravin. That is the institutions that support the project Wines of Brasil. Besides, maybe Embrapa with research and product development. We have Uvibra that has no influence in the foreign market. (...) Uvibra is an institution of vintners. (...) Apex, without them, we couldn't even have a project, actually. The resources of Wines come from Apex. By the way, some projects go straight to Apex, they don't even go through Wines”. (Exportation Manager at Miolo Winery)

“The main one is Ibravin, the Brazilian Wine Institution. (...) And the second to me is Wines of Brasil because I work in the export section of the winery. (...) So, it is every promotion that is supported by Ibravin, along with Apex-Brasil. So, this

form me are the two that are most influential. Ibravin, for N reasons, no need not say, is very active, fights a lot for the sector. And it's got this role also to unify the sector. Then there is a path; there is a board. So, Ibravin also includes positions in wineries. And I see Ibravin being very helpful on several fronts. Just now, there is this perception that the public distances themselves from the Brazilian wines. So there is this need to be repositioned in the Brazilian market.” (Exportation Supervisor at Peterlongo Winery)

As mentioned by the representative of the Miolo Winery, there are other formal institutions that play key roles within the wine industry. The following were mentioned: União Brasileira de Viticultura (Uvibra), with a more political role than Ibravin had; Associação Brasileira de Enologia (ABE), which articulates with the professionals of the industry; Associação de Produtores de Vinhos Finos do Vale dos Vinhedos (Aprovale), which is an association of specific producers; and Federação das Cooperativas Vinícolas do Rio Grande do Sul (Fecovinho). These institutions can be considered as institutions of collective interest, having a regional political concentration because the production is mainly developed in Southern Brazil.

In addition to the institutions of collective interest, there are the real service institutions. The main formal institution mentioned was Embrapa Uva e Vinho (Empresa Brasileira de Pesquisa Agropecuária), which has been responsible for improving the quality and productivity of the wine industry through technical and crop development and origin denomination. Besides working in the technological research and technically supporting the participants in the wine industry, Embrapa plays an important role in identifying the most favorable regions to grow particular grape varieties, considering the environmental factors (topography, soil, climate, rainfall). Based on this background, the Embrapa representative explains that they determine the most appropriate management, thus excluding the "trial and error" process and obtaining, together with other entities, the geographical indication. Therefore, an agreement is made with the National Institute of Industrial Property (INPI) that the grape variety fulfills certain characteristics (soil, weather, cultivation, and production techniques), generating a transfer of knowledge to the commercial area and, therefore, increasing the competitiveness of the industry. The representative at Embrapa describes the relevance of the work of this formal institution:

"The role of Embrapa, the Brazilian Agricultural Research Corporation, regardless of the topic, supply chain, is actually to search for and enable feasible alternatives, technological solutions to consolidate the sustainable competitiveness of any supply chain. (...) Today we have indications [...] the

origin denomination of Vale dos Vinhedos. We will soon have a migration of the indication of the procedure to have a notion of the origin also of wines and sparkling wines of Pinto Bandeira. We also have Altos Montes, Flores da Cunha, and Nova Pádua; we have Monte Belo and Farroupilha. We probably have until the end of this year; we have forwarded the report requesting the indication of the origin of the wines of the Campanha Gaúcha and the indication of the origin of wines from the Vale do Rio São Francisco. And we are starting today, in partnership with EPAGR, a project to create the indication of the origin of the altitude wines of the State of Santa Catarina. So it's actions, so to speak, that involve us as a research institution and development and even innovation, in a very objective way towards the promotion of technical innovation and management innovation of this segment of the chain." (Researcher, supervisor, and economist at Embrapa)

In addition to Embrapa Uva e Vinho, federal institutes were also mentioned (education and research institutes that generate normative mimicry in the technical formation of professionals); Ministry of Agriculture, Livestock, and Supply (MAPA), which analyzes the wine samples for exportation; Sebrae, which promotes technical training events, and the Ministry of Foreign Affairs, which in the past enabled resources and trade actions with Embassies. Consolidating the benefits reported by the respondents in research by Monticelli et al. (2017a), the following gains are observed: relationship networks and strategies, generation of intelligence about foreign markets, production, and dissemination of technical knowledge. cost reductions, internationalization of business and promotion of Brazil as a wine producer

The organogram shown in Figure 17 illustrates the structure of the wine industry, showing the several formal institutions that represent class entities, real services, and those linked to the state government and federal government.

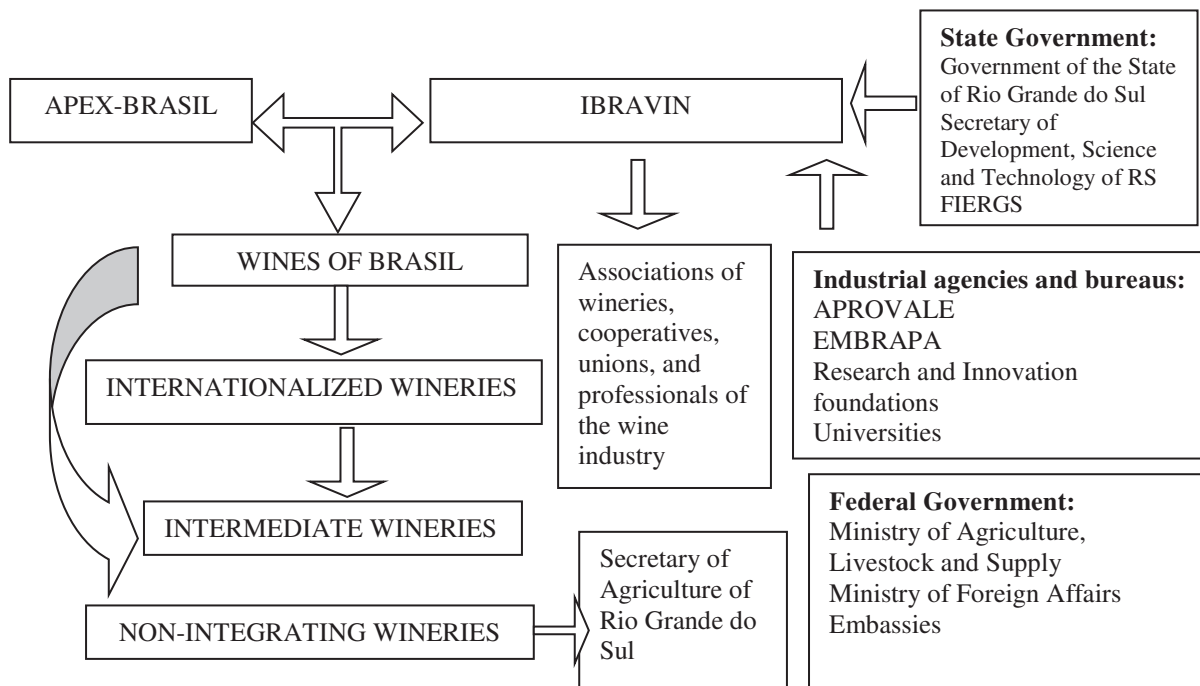


Figure 17: Organogram of the Brazilian Wine Industry.

APEX-Brasil, Agência Brasileira de Promoção de Exportações e Investimentos; APROVALE, Associação dos Produtores de Vinhos Finos do Vale dos Vinhedos; EMBRAPA, Empresa Brasileira de Pesquisa e Agropecuária; FIERGS, Federação das Indústrias do Estado do Rio Grande do Sul; IBRAVIN, Instituto Brasileiro do Vinho.

The IT industry differs from other industries regarding the most relevant formal institutions due to the low level of internationalization of the IT industry; heterogeneity among software, hardware, and services; and the capillarity of the Federação das Associações das Empresas Brasileiras de Tecnologia de Informação (Assespro), which is represented in national and state head offices. In these terms, Assespro has a preponderant character in the IT industry rather than Softex (Association for the Promotion of Excellence in Brazilian Software), aiming to represent the interests of the firms together and, mainly, to not expose themselves isolated before the government. Softex, in turn, is responsible for fostering and implementing public policies of internationalization for the IT industry through the Brazil IT + project. In this case, Softex enables learning gains, networks, internationalization, and promotion of the national brand. The report of the representative at Processor presents a complete overview of the main formal institutions in the IT industry:

“There is a society that defends the interests of Brazilian firms, which is called Assespro. There is Assespro Nacional, which is located in Brasília, and then, if I may recall, 14 or 15 regional Assespros, Rio Grande do Sul, Paraná, Santa Catarina, São Paulo, Rio de Janeiro, and so on. (...) Until the first software law in Brazil, it was the only representative entity of technology companies. When the software law was created in 1987, there was a dissent and a second entity called

Associação Brasileira de Empresas de Software (ABES) was established, which is a set of foreign companies, plus some Brazilian ones, whose main mission is to defend the interests of intellectual property rights from foreign firms in Brazil." (Sales Director at Processor)

"Because the copyright law requires a Brazilian association to connect with a foreign association. ABES is responsible for that along with this BSA, which is the Business Software Alliance, the association of foreign software companies. Then Assespro, ABES that would be the second, and a third, founded some five or six years ago, called Brasscom (Brazilian Association of Information Technology and Communication Companies). Brasscom is an entity, so to speak, gathers mostly large foreign companies and a few Brazilian companies (...) to create Brasscom, with a tremendous political force, with much greater economic power than Assespro and ABES, because Assespro ends up bringing together almost only Brazilian firms, and mostly Brazilian, small and medium-sized firms, or micro-firms. " (Sales Director at Processor)

In these terms, institutions of collective services, such as ABES and Brasscom, were emphasized besides Assespro and Softex. ABES is responsible for promoting copyright and intellectual property protection laws, while Brasscom is responsible for promoting the development of the information technology and communications software and services industry. The following were also mentioned: Federação Nacional das Empresas de Informática (Fenainfo), which is the sum of the employers' unions and regional institutions such as the Associação dos Provedores de Serviços e Informações da Internet (Internet Sul), and Sindicato das Empresas de Informática do Rio Grande do Sul (Serprorgs). On the one hand, regardless of the national or regional comprehension or the institution of collective interest, there is a complementarity of actions among formal institutions. For example, Softex does not participate in the demands before the government given its link with public policies. The other formal institutions (Assespro, Abes, Brasscom), though, collaborated to retain the payroll exemption, aiming to increase its bargain power. On the other hand, none institution of real service is mentioned, indicating more independent efforts from the firms in their business strategies. The organogram shown in Figure 18 illustrates the structure of the IT industry divided basically into nationwide and region-wide formal institutions

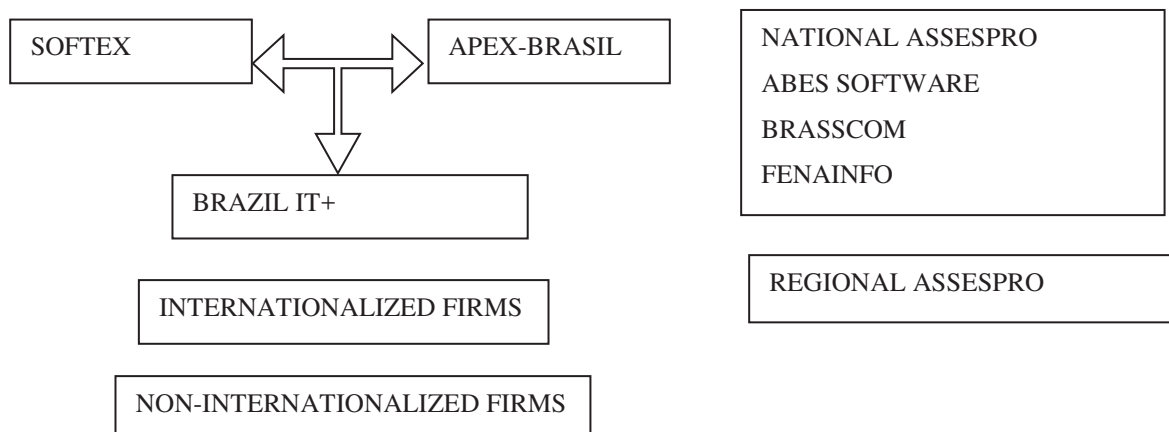


Figure 18: Brazilian IT.

APEX-Brasil, Agência Brasileira de Promoção de Exportações e Investimentos; ASSESPRO, Federação das Associações das Empresas Brasileiras de Tecnologia da Informação; ABES SOFTWARE, Associação Brasileira das Empresas de Software; BRASSCOM, Associação Brasileira das Empresas de Tecnologia da Informação e Comunicação; FENAINFO, Federação Nacional das Empresas de Informática.

6.5 Strategies of the internationalization of the firms

Internationalization strategies play a very different role in the footwear, wine, and IT industries. In the footwear industry, a higher level of maturity is observed, with more consolidated strategies developed over time through the individual actions of entrepreneurs. Basically, the firms work with direct export, reaching a 80% to 100% exportation level of the production, as in the case of Wirth, which also appears in the 1122th position among the largest Brazilian exporters from January to June 2017, according to the exported value (US\$ FOB²) (PORTAL ÚNICO SISCOMEX, 2017). However, this physical presence is not followed by a brand recognition, as the report of the representative at Pegada shows:

“If you look at the level of the companies on our level, if you take Beira Rio or another larger one, except for Grendene and Havaianas, there are few that really have a differentiated work in the foreign trade. (...) Except for Grendene and Havaianas that are larger and one or two that are more differentiated, most brands still don't have a more significant presence. Some are better or worse. A real internationalization, with offices opening, I think people are just getting started and investigating.” (Marketing, IT, and Controlling Coordinator at Pegada)

² FOB: free on board.

In the wine industry, internationalization is a deliberate strategy for firms to be recognized in the domestic market, but that generates few gains in sales volume and profitability of winery businesses. In this case, wineries establish an image for Brazilian wine in the international market, which also increases the product's legitimacy in the domestic market. The representative of Embrapa has repercussions in the speech of the wine industry:

“Actually, we can't sell wine abroad, objectively. They are very specific positions regarding events, marketing. However, from what I see and from what I hear from the people more involved with this, is that the importance is more in Brazil being present in this big events. I mean, and in this sense, I can't make a cost-benefit assessment of this. But, I know that at least until recently, the location of the resources from Apex, it seems that the agreement was renewed with Apex. And the firms that also invest in this must have some interest in a way.” (Researcher, supervisor, and economist at Embrapa)

Notwithstanding these limitations, the recent and so far timid international expansion of Brazilian wine also has benefits for these firms' competitiveness in their own domestic market. Factors such as improved product quality, greater brand exposure, improvements to wineries' management and production processes, and to cultivation techniques, and greater supply chain integration, end up contributing to diversifying customer bases, increasing barriers to entry of imported wines, increasing per capita consumption, reducing production costs, and expanding relationship networks (MONTICELLI et al., 2017).

For the Brazilian IT industry, unlike the previous two industries, internationalization is a totally reactive strategy, that is, the firm only internationalizes if a customer takes it to the international market. In this sense, there's a paradox because the IT industry is driven by innovation, while internationalization promotes learning and knowledge exchange. However, seeking external markets requires investments that most Brazilian IT firms are not yet able to afford following the reports of their representatives:

“But it's a minimal relevance. That is, we don't have great results from external operations. (...) But this has already been the mission of our firm: Be a national reference, with a strong international presence”. The international part was removed.” (Service Vice-President at Meta Group)

“We have a very simple internationalization strategy. If the client grows, we grow with him. So, if the client goes abroad, the best clients we have, we go with them. All the units that we opened abroad. (...) Reactive, totally reactive. There is no proactivity here, none. (...) It has always been like this, and I know that most tech firms that today left Brazil to follow this model.” (Sales Director at Processor)

6.6 International performance of the firms

While searching information about the international performance of the firms, it was seen that the representatives of the formal institutions, in general, did not know how to participate in this research category. Even though institutions belonging to the internationalization projects of each industry are participating, some topics cause a gap between formal institutions and firms. In this sense, emerging economies can be characterized by uncertain and rapidly developing business environments and the absence of the market supporting institutions (HE; WEI, 2013).

For the footwear industry firms, the main indicator of international performance is the volume of pairs sold. In addition to this indicator, the revenue with the sales abroad divided by expenses (e.g., fairs, trips, sending samples) were also mentioned, along with the contribution of external operations for the result of the firm. In general, the representatives of the footwear companies reported a satisfactory level with the international operations, showing the greater level of internationalization in the three industries.

In the wine industry, the main international performance indicators are profits, sales, export growth, and the contribution of external operations to the firm's results. As it is an evolving market, export growth plays a more relevant role than in the footwear industry where this indicator is more stable because the firms have already acquired a portfolio of clients over time. Regarding the level of satisfaction, the reports show that the highest indexes belong to the wineries with the greatest engagement in the internationalization process and, in turn, with the better results. The representative of Aurora winery describes this situation as such:

“The market share is small. Moreover, the representativeness, in the value of export, it is like 1%. It's too small, both in value and volume. Because Aurora is too large, and although the exportations grow, it is still too far behind Brazil, then we sell in the domestic market. Moreover, the profitability, however, of the export, is ten times bigger than the profitability in the domestic market. It is quite big. So we export very little, except that the money that is left here and the good part in basic mathematics, the money that is left here is almost equal to the money that a manager from São Paulo leaves. (...) So, the profitability is very good. This is our better indicator. And one of the indicators because of which the firm never said ‘stop exporting’.” (Importation and Exportation Assistant at Aurora Winery)

In the IT industry, the main indicators of international performance used are revenue and profitability. For firms with greater relevance in the international market, market-share

and number of offices or innovation areas abroad are also used. In general, the reports show a low level of satisfaction with the internationalization process, mainly because, in the IT industry, the internationalization of firms usually occurs reactively, induced by their customer. Also, the report of the President of Assespro portrays the difficulty of internationalization in the Brazilian IT industry:

“So, the first thing, you must understand the market, and then see if you can adapt your product to it. There is no such thing as an international product being created. (...) We have our product, which is our success here, regionally, and we have to adapt to the international market, but it is easier to adapt to that regional market there, so you have to go there, get to know locally and see what you do. So this internationalization of the product depends much on the market where you're going to work. (...) Set a website in English and will this sell by itself? It won't. (...) Born globals only if it is at the Associação Gaúcha de Startups. Our product goes through a significant adaptation. (...) The product that today is successful here, of our associates, it is not born global, it is a local market. And it can be local in Australia. Pandorga, for example, which is one of our associates, is a startup.” (President of Assespro)

Therefore, despite trying to identify international performance indicators based on the EXPERF scale, not all were identified. The EXPERF scale has three dimensions: (a) financial performance; (b) strategic performance; and (c) satisfaction with the performance of international operations (ZOU et al., 1998). However, I observed a higher prevalence of financial indicators in the interviews conducted in the footwear, wine, and IT industries.

6.7 Cooperation with the support of formal institutions

This category was diverse due to the characteristics of each industry. The footwear industry is marked by a low cooperation due to an opportunistic behavior risk by imitation of product design and innovation. The opportunistic behavior risk also has a positive aspect, since it creates a collective good from imitation based on opportunism. On the one hand, there is competition between firms for raw material, such as leather and even labor. On the other hand, firms make cooperation movements leveraged by institutional actions, mainly from Abicalçados and Assintecal. Under these terms, cooperation mitigates deficiencies but puts the firm at risk to no longer make innovations. Therefore, competition leads cooperation as a relationship strategy.

In the wine industry, unlike the footwear industry, there is a perception of the interviewees that there is cooperation among the firms, mainly to make them participate in the

international market. However, the wineries have some reservations about coopetition. Wineries cooperate due to the common strategic goals, especially when they have well-defined strategies but fail to cooperate when they do not trust each other and have cultural motivations, incurring opportunistic behavior risks. As competition is fierce in the region, it discourages cooperation and favors individualistic actions based on pride, tradition, and the name of the family that is represented in wine. Contrasting this scenario, two different reports are presented below:

“I think that when they have a common goal, it’s the main way, motivation for coopetition. And scarce resources, especially. Depending on the market, it gets clear in the internationalization. “I want to enter this market, but I can’t close a deal for a container. I can’t even close a deal for a pallet”. (...) So I end up having to cooperate because I have a specific goal. I want to send my product to such a market, and if we get together here, this logistic issue will be much easier. So when you have scarce resources and clear goals, it’s much easier to develop a coopetition strategy that is successful for everyone.” (Professor and academic researcher)

“In the winery, there is the interest (in cooperating), but I am more interested in promoting my product, my brand, my name. And there is a strong thing that I see here, that wineries are all family businesses. With Peterlongo, it was by chance, because it was, but then it broke and ceased to be, it was bought. Otherwise, it would be like this until today. So, because it is a family firm, there is also tradition, proud to take the name of my family. Moreover, usually who works, who are in the highest positions, board directors, management, are their own family. So it’s like this, I’m Valduga, I’m Salton, I’m Miolo. I am more than you, you are more than me. I see that there is this conflict of forces, let’s say.” (Exportation Supervisor at Peterlongo Winery)

In the Brazilian wine industry, which is characterized by fragmentation between firms and by numerous different formal institutions, conflicts, ill-defined responsibilities, and perceived unfairness regarding gains are constant threats that create obstacles to the growth of the industry (MONTICELLI et al., 2017). Moreover, lack of trust among participants, the strategic mismatch between firms with different goals, and opportunism all limit the collaborative strategy, in addition to firms perceiving the benefits to be less substantial than they would like (JARILLO, 1988).

In the IT industry, the representatives of firms and formal institutions showed that coopetition, although being a premature stage, promotes a new solution to the firm which alone would not be able to reach. This solution may be based on resource complementarity, knowledge exchange (mainly of human resources) and access to the international market.

Thus, firms that cooperate gain access to resources and markets, economies of scale and scope, increased bargaining power, reduced transaction costs, periods of product development and innovation, and contractual mechanisms to neutralize opportunistic risks (LADO et al., 1997).

6.8 Relevance of the cooperation relationship in the relationship between formal institutions and international performance

Cooperation is understood by the respondents from the footwear, wine, and IT industries as a deliberate strategy of formal institutions to promote the international performance of firms in each industry. In this sense, the deliberate strategy consists in induced cooperation when cooperation is imposed with competing firms thus creating a new interface in the value chain (MARIANI, 2007). A deliberate strategy is, most of the times, conducted by a third party: a public or semi-public organization which plays a key role in mediating and anticipating the situations (MARIANI; KYLANEN, 2014).

Within the footwear industry, formal institutions promote cooperation in the internationalization of firms by fostering showroom of the firms abroad, training, events, workshops, promotion of fairs, and creation of discussion groups. Brazilian Footwear, managed by Abicalçados with the financial support of Apex-Brasil, has firms in three different levels (yellow, green, and blue) according to the criteria of maturity of internationalization as a trademark, investment, and planning in foreign markets, international price lists, etc. However, only the top two levels (green and blue) participate in the international actions with the aim to not put the national brand at risk in the international market. On the other hand, the firms of the two higher levels also take more advantage of the cooperation strategies because they have more resources reserved for internationalization.

Brazilian Footwear is a formal institution with a propositive character as it represents a large and nationwide group of firms. Thus, the formal institution proposes the strategies and the firms merely perform the policies defined by Brazilian Footwear. On the one hand, the propositive character of the formal institution should restrain political influences in the decision-making of the industry. However, there are reports that show that the power of large firms still prevails in Brazilian Footwear:

“Brazilian Footwear is a little bit authoritative as it is the institution that decides the targeted markets. There is a committee of ambassadors, but they dictate the rules according to the interests of larger firms. It should be driven by more firms. (...) Despite being large firms, they still work as shoemakers as in the time they

used to sell to the United States, following the specifications of product, price, and deadline. With the exceptions of Grendene (full plastic), Arezzo (women's footwear) and Beira Rio (massive).” (Financial Manager at Crysalis)

At this point, coopetition is relevant to the formal institutions of the footwear industry because they work for the firms and are the very reason why these institutions exist. However, they still struggle to promote coopetition, mainly based on the risk of design imitation, in the distribution channels based on price, and by the footwear having its strategy based on low cost. Therefore, the footwear industry firms are identified as being in the initiation phase of coopetition according to Dorn et al. (2016), because they work at the inter-firm level, with formal and informal agreements, workshops and events, incentive policies and setup of relational mechanisms and routines.

In the wine industry, in general, formal institutions work by pooling resources and promoting cooperation between the wineries. Thus, while the wineries compete intensely for markets, they also cooperate in other aspects to access new resources and capabilities. Under these terms, internationalized firms are more coocompetitive because the competition is minimized due to the external market is larger than the domestic market. However, this coopetition is not as simple or harmonious as it might seem. Certain topics had to be overcome gradually over time, and others still present obstacles. To achieve effective coopetition, the role of institutions, considered by many of the interviewees as of fundamental relevance, had to be built over a considerable period. The formal institutions had to earn legitimacy and be recognized and accepted by the wineries. The high number of institutions present in the industry is still a source of confusion among the wineries regarding each one's roles, making it hard for them to perceive the benefits they provide (MONTICELLI et al., 2017).

Another topic is related to the asymmetry of gains. The larger wineries believe they have more to contribute than the smaller firms and see the major gains as consolidation of regional designation of origin and access to financial resources, whereas they don't consider that gains in management or knowledge are very significant, since they already have these capacities and so they do not perceive that there is a clear contribution that the smaller wineries can make. On the hand, even when the smaller wineries recognize the additional access they get to new resources and technologies, they still believe that the greatest winners are the larger wineries, whether through influencing the formal institutions to act in line with their strategic objectives or because they have the capacity to take better advantage of the opportunities created through collaboration. On the other hand, coopetition benefits more the

medium and large firms since only those have the necessary resources for the internationalization.

In practice, participating in institutional relationships precedes the internationalization process. Even wineries that do not participate in the Wines of Brasil showed that they have benefited from its activities, primarily through exposure for the Brazil brand abroad, which confers greater perceived quality on the region of origin. The gains reaped by the wineries in both domestic and international markets, therefore, provide evidence of the benefits of coopetition. Coopetition in industries with intense rivalries helps to improve firms' market positioning (PENG; BOURNE, 2009)

In the wine industry, the Wines of Brasil has a deliberative character because it represents a smaller and regionalized group of firms and plays a role to perform the strategies defined by the firms and other formal institutions that are part of the deliberative council of the formal institution. Wines of Brasil works basically in two ways: a) help wineries that have no importer or distribution channel; b) assists wineries that already have an importer and distribution channel to participate in certain targeted markets to expand its distribution and getting closer to the final consumer, etc. In both cases, it is a deliberate strategy to promote the identity of the Brazilian wine and to develop the national wine industry. The representative from Aurora Winery shows the perception of the entire Brazilian wine industry:

“I think it is planned. It is organized. Precisely because our mother institution is Wines of Brasil, and they have the demand and the need, as I told you, to promote more than one product. So, they themselves have this notion and this opening to help other firms.” (Importation and Exportation Assistant at Aurora Winery)

Thus, the Brazilian wine industry is identified to be in a more advanced stage of coopetition, as based on the studies by Dorn et al. (2016). The Brazilian wineries are classified in the evaluation phase of coopetition since they work at the inter-firm level, considering the influence of coopetition on the firm's structure and firm's abilities, positive outcomes about financials and value creation, influence the value of the industry characteristics (competitive and cooperation intensity).

In the IT industry, formal institutions promote the internationalization of firms through networking events, international fairs, lectures, mapping opportunities and challenges, confraternities. As well as in other industries, it is also a deliberative strategy. However, there is a dichotomy between large firms that already have the resources and work alone, and the

SMEs that do not have resources and only intend to participate in the programs. The representatives of two large Brazilian IT firms describe the struggle to cooperate in the Brazilian IT industry:

“I don't know if it is a sector with weak entities. I don't know if we're being selfish. However, this is the thing: at least one of the Meta's characteristics, we go there and make all by ourselves. (...) If the opportunity shows, I go there, and I make it all by myself. “Oh, but you've got to know specifically about something selective.” I take it and hire the best guy and bring him home. But there's no cooperation, got it? There's a client that needs some stuff, and I take a friend there to remove the space. That's how I see it, you know? (...) Also, all of those I've seen doing this went broke.” (Service Vice-President at Meta Group)

“Assespro had 200 associates back then. Only 20 participated in these programs. 10%. And then you're gonna ask: but how many tech firms is there in the Rio Grande do Sul? 3,000. It has 3,000 firms and 200 associates in a regional entity, and 20 participate in a process like this. Casually the ones that are stronger and grow the most. So, what is the basic problem of cooperation in the IT sector? Lacks of an entrepreneurial view. We have technicians who create firms. (...) And not managers. They are not entrepreneurs with management, administration, and governance abilities. No. That guy only knows how to create a good product, provides a good service, but that's all. Does he struggle to structure the firm to take the next step, you know? And the guy does not move forward.” (Sales Director at Processor)

Even with these interviews, cooperation is relevant for the formal institutions since strong firms make the institutions stronger. Consequently, once the formal institutions are strengthened, firms have political representation, as it is an industry that is not labor intensive. Considering the study of Dorn et al. (2016), the firms of the Brazilian IT industry can be said to be in the initiation phase of cooperation, because they act in the inter-firm level, having formal and informal agreements, assignment of partner-specific tasks, setup of relational mechanism and routines, workshops and events, and incentive policies.

6.9 Institutional barriers and incentives to industry

Brazilian industries face several barriers to the internationalization of the firms. The first one is the representatives understanding the internationalization strategies since they have always worked in a large domestic market protected by government measures. However, the firms need to resize their resources to reach an institutional advantage, in which institutions are responsible for transfer of resources between firms (MARTIN, 2014) enabling them to

overcome barriers such as the bureaucracy of foreign institutions, unfavorable exchange rates, unknown brands and country of origin, high internal taxes, and lack of knowledge of markets.

In the footwear industry, the main institutional barriers mentioned by the representatives of firms and formal institutions were the oscillation of the exchange rate; high logistical costs due to Brazil's position in the southern hemisphere, and poor port management; lack of an own brand of Brazilian footwear, making it to depend on resources; bilateral agreements between countries; and high tax burden on the labor force. Below the report of two representatives of the footwear industry:

“The most important for me is the lack of strategic understanding. Because if someone simply notices a currency move and retracts the entire strategy, he just doesn't know what he's doing. (...) The exchange rate and the strategic issue, to me, are the main problems.” (Project Manager at Abicalçados)

“The exchange... The exchange is not even a problem. The problem is the economic instability that generates the exchange problem. (...) That is one for sure. A long-term strategy is usually hindered because of this. The issue of legislation, knowledge, and the very issue of bilateral agreements is another situation that Brazil is well behind. If we compare them with Central America, they have those agreements between them, free trade, a very complicated situation. (...) I don't know if it is related, but the labor tax burden of Brazil is what makes it more onerous. This is really what leaves profit at a disadvantage level.” (Marketing, IT, and Controlling Coordinator at Pegada)

In the wine industry, the main institutional barriers mentioned by the representatives of firms and formal institutions create the oscillation in the exchange rate; bilateral agreements favoring the importation of foreign wine (e.g., Chile); distribution difficulties due to logistic inefficiencies; and bureaucracy of formal institutions (e.g., MAPA with the delay in shipping certifications required for export). The representatives of the wine industry cite some of these institutional barriers to the internationalization of Brazilian wines:

“Bureaucracy, for sure. Today, if you want to enter the European market, you have to have the VI 1 certification, you have to. Something that is making things easier is that our importers are not requiring the print version to be sent.” (Export Manager at Miolo Winery)

“And Brazil does not have any agreement with other countries. Moreover, Chilean wines are sold with 0 tax in other markets, but not ours. Ours has the integrated tax. So, it turns out that Brazilian wine enters the market at a higher cost because of that.” (Promotion Department Manager at Wines of Brasil)

In the IT industry, with a more premature level of internationalization of the three industries, the main barrier is the deficiency of professionals proficient in a foreign language, since the main focus of Brazilian firms is still the domestic market. In addition to this barrier, the exchange rate oscillation, bilateral agreements or those between groups of countries that favor countries that have more traditional IT markets, and the difficulty of adapting to the local culture were mentioned. The representatives of SOMA Informática and Processor describe this scenario as follows:

“I think the language is the main obstacle because we already have an export tradition to São Paulo, let's say.” (Partner-Director at SOMA Informática)

“Culture and language. Everything is so much easier than here. For those who work in Brazil, everything is easier abroad. Making business in other countries is so much lighter, with much more honesty than it is in Brazil. Here in Brazil, you have to defend yourself against everything.” (Sales Director at Processor)

As incentives to the industry, the tariff barriers were already mentioned as hindering the dumping of foreign footwear. Complementing this perspective, some representatives pointed out that the exchange rate also favors firms, depending on the value:

“And the exchange rate as it is today, with all this economic crisis, it is actually working in our favor. ” (Exportation Supervisor at Peterlongo Winery)

6.10 Summarized Table comparing the industries

While comparing the industries, a comparative table is presented with the main features of each of them, divided into drivers and outcomes (Table 15):

Table 15: Characteristics of the footwear industry, wine, and IT industry

Typology	Characteristics	Footwear industry	Wine industry	IT industry
Drivers	Product Life-Cycle	Decline	Mature	Growth
	Competitive positioning	Low-cost product	Low-cost product with differentiation beginning	Mostly low-cost product
	Kind of industry	Labor intensive	Labor intensive	Labor intensive migrating to intensive knowledge
	Role of the government	interventionist	Promotion	Market buyer
	Innovation	Focused on design and organizational	Focused on production processes	Focused on product and services
	Advantages	Externality gains	Externality gains	Not defined
	Difficulties	Competition with cheap labor from Asian countries; exchange rate fluctuation	Competition with foreign wines Competition with foreign wine in the domestic market because of the low tariff barriers	Competition for low cost with Asian players; difficulty to form a specialized labor
Outcomes	Level of internationalization	High level	Low level	Very small level
	Level of cooperation (DORN et al., 2016)	Initiation phase	Evaluation phase	Initiation phase
	Formal institutions' function	Propositive role	Deliberative role	Premature role

Source: the author (2017).

As an industry in decline, in a more advanced level of internationalization as the footwear industry, formal institutions play a propositive role, designing the internationalization strategies of the project to be implemented by the firms. In a mature industry, but with a low level of internationalization, formal institutions play a deliberative role, representing the interests of the firms even at the regional level. In the IT industry, being a growing industry, emerging regarding internationalization, formal institutions still play a premature role because there is a variety of interests and low international representation of the firms. Consequently, the advantages still not defined in this industry.

Institutions are strategic because they are a source of credibility and legitimacy raising an effective way to make business (LUO, 2007; PENG; LUO, 2000). Fourth, institutions in emerging economies play a relevant role in strategy and in the performance of domestic and foreign investments made by firms that compete with each other internationally (GAO et al., 2010). Consequently, the alignment of different institutional settings implies the superior performance of the firms that are part of this institutional environment (GAMMETOLFT et al., 2012).

Considering the scenario described in Table 15, the challenge of this thesis is to equalize the differences and characteristics of each industry during the analysis of the results, while identifying the drivers and outcomes. For this challenge, a qualitative and quantitative study is relevant since it allows contextualizing the industries separately and analyzing them

together. At the same time, are presented hypotheses testing different variables considering the role of coopetition, formal institutions, and international performance. In this sense, quantitative analysis is presented in the next chapter.

7. QUANTITATIVE ANALYSIS

This chapter addresses the quantitative results of the research and its respective analysis. First, the data treatment is presented. Second, the reliability of the constructs is described. Third, a descriptive analysis of the data collected is presented. Forth, the hypotheses are addressed. Lastly, the results based on the tests of the models are shown.

7.1 Data Treatment

The descriptive phase of a research details the data collection, preparation, and treatment. In these terms, data were prepared and checked, as well as missing values, outliers, and tests of multicollinearity, normality, and linearity. Then, the results were scanned searching typing error or anomalies among the answers. As the questionnaire has 66 questions, a range of 5% a 10% missing values could represent up to 6 questions, according to literature (KLINE, 2005). Potential questions with missing values were replaced by the variable mean (HAIR JR. et al., 2009) thus allowing that there were no excluding respondents based on missing values. In a graphic analysis, outliers were observed by comparing the general behavior of the other respondents. In this sense, initially, one of the wineries stood out from the other firms, mainly because it was founded more than a hundred years ago and this reflected in the answers. However, it was chosen to keep it on the data basis since this discrepancy can create findings based on the variety of the sample. In these terms, outlier observations should be discussed carefully, especially when they will be excluded from the sample (MEYER et al., 2017).

The normality via the kurtosis and the skewness analysis were checked (KLINE, 2005) (Appendix E). Variables showed normality with asymmetry index values below |3| and with kurtosis values below |10| (KLINE, 2005). Moreover, it was performed the multicollinearity test by bivariate correlation. The variables presented correlation below 0.85 as recommended by Hair et al. (2009) (Appendix F).

7.2 Constructs reliability

Each construct was evaluated individually following the confirmatory factorial analysis (CFA) using the software Amos. By identifying and confirming the constructs,

observable variables were created for each construct considering its respective means. In these terms, some indicators of each construct in the final assessment were excluded:

Formal institutions (FORINS): in this construct, part of the indicators belonged to an already validated scale, adapted from He and Wei (2013) and Pla-Barber and Escribá-Esteve (2006). However, there was the need to include indicators that would comprehend the local context of the research. The problem was that some indicators generated an overlap of the theoretical construction, such as Q15, leading to its exclusion after the collection of the results. Similarly, Q19 and Q24 reached low factor loads at the end of the research. As an aggravating factor, a possible explanation is that Q24 makes direct reference to the influence of the government in a moment of political turbulence in the country and may have interfered with the perception of the respondents.

Performance in the domestic market (DOMPER) and the international market (INTPER): there was data collection from the respondents for a future study on performance in the domestic market. Therefore, these variables were not used in this research. For the performance in the international market, three dimensions are part of this construct: financial (FINPER), strategic (STRPER), and the satisfaction with the international performance (SATPER) based on Zou et al. (1998).

Cooperation in the domestic market (COODOM) and the international market (COOINM): two criteria were used to define the exclusion or not of indicators: a) statistical validity; b) coherence with the theoretical background, preventing overlappings and conflict of concepts to occur. In these terms, indicators with factor load lower than 0.500 were excluded due to the low factor load (FORNELL; LARCKER, 1981), as a low correlation of these indicators with other variables was observed. Moreover, indicators such as Q3, Q4, Q5 (COODOM), Q34, Q39, and Q46 (COOINM) showed an overlapping in the theoretical construction resulting in non-significant results. Q13 showed the same effect previously mentioned, but with Q10, Q11, and Q14 on a smaller scale. However, when added to a low factor load, it had to be excluded.

It is relevant to explain that COODOM and COOINM were incorporated as a dummy variable (DCOOPCOM) in the model. These dummy variables capture whether a firm has engaged in competition in the domestic market and cooperation in the international market or vice versa. The first dummy variable (COOP) represents the firms that showed cooperative behavior and are the firms of reference in the test of the hypotheses. Thirty-four firms, of the 166 firms, showed this behavior. The second dummy variable (COMP) represent the firms

with competitive behavior in the domestic and international market summed 84 firms. The remaining forty-eight firms presented cooperative behavior, regardless of the market.

As established in H2, the cooperative behavior is expected to mediate the relationship between the formal institutions and international performance. As dummy variables are being used to group firms with different strategic behaviors, it is expected that the regression model shows the comparison between cooperating and competing firms.

Each construct was evaluated individually by Cronbach's alpha, composite reliability, and extracted variance (Table 16).

Table 16: Reliability of constructs

Construct	Dimension	Previous variables	Used variables	Cronbach's alpha	Composite reliability	Extracted variance
Cooperation in the domestic market	COODOM	01 to 14	07 to 12 and 14	0.921	0.923	0.636
Formal Institutions	FORINS	15 to 24	16 to 18 and 20 to 23	0.926	0.928	0.647
Performance in the domestic market	DOMPER	25 to 33	Not used in this research	-	-	-
Cooperation in the international market	COOINM	34 to 47	40 to 45 and 47	0.937	0.938	0.685
International Performance	FINPER	48 to 50	-	0.916	0.918	0.789
	STRPER	51 to 53	-	0.919	0.920	0.794
	SATPER	54 to 56	54 to 56	0.934	0.935	0.827
	INTPER	50 to 56	54 to 56	0.958	0.960	0.723

Source: The author based on 166-respondent results

As a reliability measure, an acceptable value for Cronbach's alpha is at least 0.7 (NUNNALLY; BERSTEIN, 1994; MENDELSON; PILLAI, 1999). However, using alpha de Cronbach does not guarantee the one-dimensionality by itself but assumes that it exists (HAIR Jr. et al., 2009). So that this situation could be managed, two additional testes were made during the pre-test: reliability of the constructs and extracted variance. Composite reliability is a measure of internal consistency of indicators that the reference value is 0.7, although values lower than this are acceptable for exploratory researches (HAIR Jr. et al., 2009). The extracted variance is also a reliable indicator, which indicates the overall amount of variance explained by the latent construct and also for each dimension. The values suggested are greater than 0.5 for each construct (HAIR Jr. et al., 2009).

It was checked for discriminant validity by comparing the correlation matrix of the constructs FORINS and INTPER. In this case, what is important is that the variance extracted from each construct was higher than the variances shared between the constructs (FORNELL;

LARCKER, 1981). In these terms, formal institutions (FORINS), and international performance (INTPER) meet these parameters (Table 17).

Table 17: Correlation between the constructs

	Formal Institutions	International performance
FORINS	0.647	
INTPER	0.241	0.723

Source: The author based on 166-respondent results

It was found sufficient support for a good fit to the measurement model. All required procedures for discriminant validity provided satisfactory results. After the validation of the constructs, the following section will introduce the descriptive analysis of the sample.

Since data were collected from just one respondent in each firm, the Harman's one-factor test was conducted to address the common method variance (PODSAKOFF et al., 2003). The one-factor found has explained 51.46% of the covariance in the variables. The literature indicates that the desired maximum index is up to 50%. However, this study is an exploratory research that was complemented by qualitative data through interviews and secondary data. In these terms, the results were very close to the desired index.

7.3 Descriptive Analysis

The sample included 166 respondents of firms from three different industries: 75 firms of the footwear industry, 37 firms of the wine industry, and 54 firms of the IT industry. The average years of activity of the firms are 31.3 years; the oldest firm was founded in 1910, and the youngest was founded in 2014. The prevalence of firms that started their activities along with the cycle of each industry in the country can be identified, as in the cases of the firms in the wine industry (founded in 1910) and IT industry (founded in 1951). The footwear industry has faced a crisis period when competing with Asian countries and the currency depreciation that caused the bankruptcy of several firms that have been around for a long time.

As a result, there is a higher standard deviation in the sample of firms of the wine industry, showing they have business spanning for centuries as well as firms that have just started their activities. In the footwear and IT industries, the samples are more homogeneous, considering the concentration of the results of the standard deviation. Table 18 describes the level of general experience of each industry, as well as the minimum and maximum experience and the standard deviation of years:

Table 18: General experience of the firms studied in years

	General experience	Minimum experience	Maximum experience	Standard Deviation
Footwear industry	29.8	7	69	18.65
Wine industry	46.8	7	107	28.58
IT industry	21	3	66	17.35
Mean of the industries	31.3	-	-	20.55

Source: The author based on 166-respondent results

Regarding the international experience, firms of all industries were seen to reduce their international activity due to the recessive economic context of the country in recent years. As the research only intended to include firms with international experience during the data collection, it resulted in a higher mean than the one estimated for the entire industry (Table 19).

Also, there is a greater international experience of footwear industry firms compared to the wine and IT industry firms, mainly due to the international insertion of footwear firms in the 1970s. Similarly, there is a greater international insertion regarding the number of countries and relative participation of international business in the revenue of the footwear industry firms, followed by IT industry firms that began their internationalization in the 1990s. Wineries have a timider international business performance when compared to the two other industries since they began their internationalization only less than 20 years ago.

Interestingly, the results of the standard deviation show an expansion in the number of countries with which the IT firms make business abroad. This is a characteristic of the IT industry, which, unlike the footwear and winery industries, not only deals with products but mainly with services that can be easily passable through electronics, facilitating its internationalization and multiplication by different customers and countries.

Table 19: International experience of the firms studied in years

	International experience	Minimum experience	Maximum experience	Standard deviation	Number of countries that negotiates	Standard deviation	Relative participation of the international business in the revenue (%)	Standard deviation
Footwear industry	18.1	1	53	10.84	18.3	17.53	29.4	27.02
Wine industry	14.6	Started this year	75	14.93	6.1	5.28	8	10.08
IT industry	13.3	Started this year	36	8.22	16.1	24.22	23	24.5
Mean of the industries	16.1	-	-	12.12	14.8	19.07	22	24.67

Source: The author based on 166-respondent results

According to the Brazilian Supporting Service to Micro and Small Firms (SEBRAE, 2013), the size of a firm working in the industry field can be categorized as the following:

Micro: up to 19 employees;

Small: from 20 to 99 employees;

Medium: from 50 to 99 employees;

Large: more than 100 employees.

With the aim to have a complete description of the respondents, data were also collected considering the annual gross operational revenue. According to IBGE (2017), firms can be classified as:

Micro: less than or equals to R\$360,000;

Small: more than R\$360,000 and less than or equals to R\$3,6 million;

Medium: more than R\$3,6 million and less than or equals to R\$300 million;

Large: more than R\$ 300 million.

Results showed a prevalence of SMEs, regardless of the industry, whether the classification according to the number of employees (Figure 19) is considered or the classification according to the annual gross operational revenue (Figure 20).

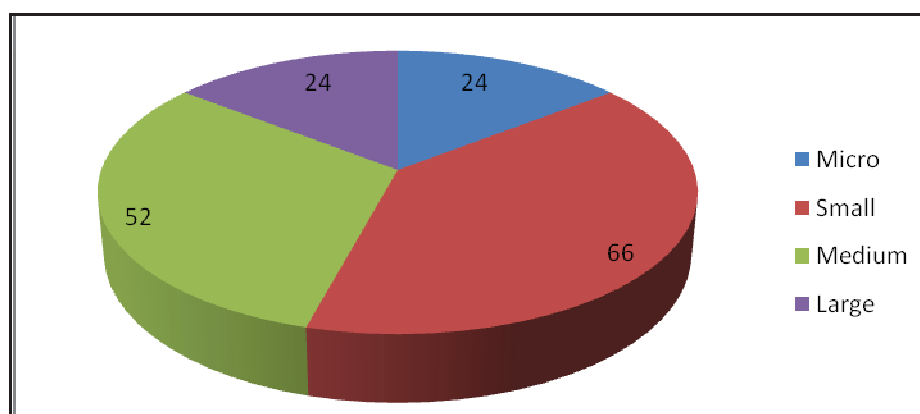


Figure 19: Classification of the firms according to the number of employees (SEBRAE, 2013):
Source: SEBRAE, 2013.

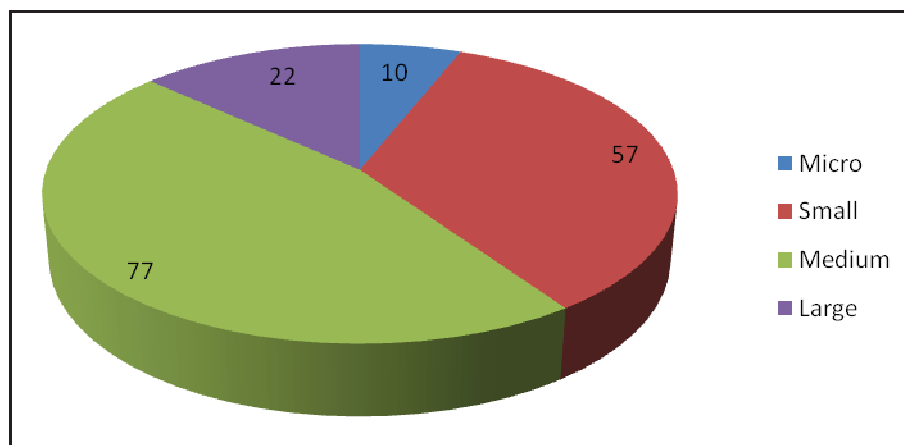


Figure 20: Classification of the firms according to the annual gross operational revenue.
Source: IBGE, 2017.

According to the classification according to the number of employees (SEBRAE, 2013), 71.1% of the firms in the sample are SMEs. These results show that the industries analyzed have increasingly ceased to be labor intensive due to the processes of innovation and specialization caused by labor division. Similarly, according to the classification of annual gross operational revenue (IBGE, 2017), 81.7% of the firms in the sample are SMEs. These results show the relevance of the externality gains by creating new strategic relationships that bring competitiveness to SMEs.

In the next section, this study presents the test of the hypotheses.

7.4 Test of Hypotheses

Table 20 shows again the hypotheses adopted in this study:

Table 20: Research hypotheses

Hypotheses	Description	Constructs	Scales
H1	There is a positive and significant relationship between adherence to formal institutions and international performance of firms	Formal Institutions (FORINS) and International Performance (INTPER)	He; Wei (2013); Pla-Barber; Escribá-Esteve (2006) and Zou et al. (1998)
H2	Coopetition mediates the relationship between adherence to formal institutions and international performance of firms.	Coopetition in the Domestic Market (COODOM), Coopetition in the International Market (COOINM), Formal Institutions (FORINS), International Performance (INTPER)	He; Wei (2013); Pla-Barber; Escribá-Esteve (2006) and Zou et al. (1998)

Source: the author (2017).

7.5 Research Models

Three models summarized the quantitative analysis of this research. The model I analyzed the direct relationship between adherence to formal institutions (FORINS) and international performance (INTPER). Model II analyzed the relationship between FORINS and INTPER, including control variables such as: a) size of the firm according to the annual revenue; b) lifespan; c) international experience; d) type of industry. Model III included coopetition (DCOOPCOM) as a mediating variable on the adherence to formal institutions-international performance relationship with the aim to test hypothesis H2. Table 21 presents the results of the regression analysis.

Table 21: Research models

	Model I	Model II	Model III
VD VI Mediator variable VC	INTPER FORINS	INTPER FORINS REV INTEXP GENEXP IND	INTPER FORINS DCOOPCOM REV INTEXP GENEXP IND
R ²	0.045**	0.120**	0.138**
F	7.618**	4.246**	4.149**
R ² change		0.092**	0.019**
F change		3.294**	3.342*
β FORINS	0.213**	0.206**	0.147*
β INTEXP		0.197**	0.225**
β GENEXP		-0.192**	-0.214**
β REV		0.192**	0.205**
β IND		-0.32ns	-0.15ns
β DCOOPCOMP			-0.150*

* significant at 0.05.

** significant at 0.1.

The analysis of the variance inflation factors (VIF) showed values below of the threshold of 10 pointed out as the acceptable limit (KLEINBAUM et al., 1988; FOX; WEISBERG, 2011) and the tolerance factor showed values higher than 0.10 (HAIR JR. et al., 2009). The relevance of both indicators is highlighted with the aim to keep an adequate level of multicollinearity between the variables and, consequently, the predictive power shared between different variables (Table 22).

Table 22: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.713	.304		8.910	.000		
	FORINS	.160	.088	.160	1.818	.071	.744	1.344
	COOINM	.094	.100	.095	.942	.348	.575	1.740
	COODOM	.055	.123	.048	.446	.657	.508	1.969

a. Dependent Variable: INTPER.

The hypotheses had been tested mainly through the analysis of multiple linear regression. Three models of regression were used for the test. The first model tests H1 while checking the relationship between adherence to formal institutions and international performance. The second model includes control variables to check the impact of size, experience, and type of industry of the firms over the relationships tested here. The third model, which tests H2, includes the dummy variable that compares cooperating firms and competing firms while checking its mediator effect in the relationship between adherence to formal institutions and international performance.

Model I supported hypothesis H1 ($\beta_{\text{FORINS}} = 0.213$, $p < 0.1$). There is a direct and significant relationship between the adherence to formal institutions (FORINS) and international performance (INTPER). Results supported that the dependent variable (INTPER) is directly related to the independent variable (FORINS). However, according to the results of Model III ($\beta_{\text{FORINS}} = 0.213$, $p < 0.05$; $\beta_{\text{DCOOPCOMP}} = -0.150$, $p < 0.05$), this relationship is partially mediated by competition considering its two perspectives – domestic market and international market.

The inclusion of control variables (international experience, general experience, revenues, and industry) has improved the variance explained in Model II ($\beta_{\text{FORINS}} = 0.206$, $p < 0.1$) in 12% (R^2 between Models I and III). The results support the hypothesis H1 that argues the direct and significant relationship between the adherence to formal institutions (FORINS) and international performance (INTPER).

The second hypothesis proposed the relationship between the adherence to formal institutions and international performance mediated by competition. To test this hypothesis, a dummy variable was created to capture the dynamics of the competition. In these terms, competition is measured regarding competition and cooperation in domestic and international markets simultaneously, but with opposite strategies between markets. The results support hypothesis H2. Thus, competition partially mediates the relationship between the adherence to

formal institutions and international performance of firms. The inclusion of mediating variable has improved the variance explained in the Model III ($\beta_{\text{FORINS}} = 0.147$, $p < 0.05$) in 13.8% (R^2 between Models II and III).

It is relevant to highlight the dummy used to evaluate the cooperation among firms considering cooperation as the control reference and the competition as the control variable. In this case, the $\beta_{\text{DCOOPCOMP}} = -0.150$ partially mediates the relationship between adherence to formal institutions and international performance and, at the same time, competition negatively mediates this relationship. Consequently, a positive mediating effect was found between cooperation and the adherence to formal institutions and international performance relationship.

For additional tests to verify the H2, the adherence means to the formal institutions of the two groups of firms were compared. The purpose was that the average of the group of the cooperating firms was higher than the average the group of competing firms (Table 23).

Table 23: T-test to compare means of formal institutions

Domestic Market	International Market	Strategic Behavior	Formal Institutions	Sig
Competition	Cooperation	Coopetition	3.38	0.056
Cooperation	Competition	Coopetition	4.02	0.047
Competition	Competition	Competition	2.84	

Sig, t test regarding the competing ones.

Results show the average of the adherence to formal institutions among the group of cooperating firms is significantly higher than the average of the group of competing firms. Institutions influence firms' entry into the markets (PENG et al., 2009) and one form of influence is by encouraging cooperation between rival firms (BRITO, 2001). Using resources and incentives, formal institutions can promote collaboration between rival firms to enable them to do business in markets that have hitherto been little exploited, such as international markets, for example.

Many different advantages can be achieved when competitors collaborate in different environments to those in which they compete, including reduction of obstacles or threats (CHIN et al., 2008), expansion of markets (OKURA, 2007), access to new resources, and improvements to processes, products, quality, and efficiency (GANGULI, 2007). Thus, cooperative strategies result from institutional policies that generate business opportunities.

After the qualitative and quantitative results were analyzed in the relationship between formal institutions and international performance, taking into account the role of cooperation in several industries, the following chapter presents the discussion on the results.

8 DISCUSSION

This study has focused on improving the understanding of how cooptation is related to formal institutions and international performance in an emerging economy. To reach this objective, qualitatively, an exploratory research was presented using case studies in multiple industries that generated a framework integrating institutions and cooptation. Quantitatively, it is proposed an alternative and unexplored path to explain the relationship between formal institutions and international performance mediated by cooptation.

Considering the role of formal institutions, the relevance of their influence on the international performance of firms, especially in emerging economies, is noticeable due to the volatility of the institutional environment. Thus, formal institutions can be seen as an institutions network including the main formal institutions to which the firm is related with the aim of internationalization (PLA-BARBER; ESCRIBÁ-ESTEVE, 2006; HE; WEI, 2013). However, despite starting from the same objective of promoting the internationalization of firms, formal institutions can play different roles according to the characteristics of each industry and the adherence of the firms to the formal institutions.

As an industry in decline, in a more advanced level of internationalization as the footwear industry, formal institutions play a propositive role, designing the internationalization strategies of the project to be implemented by the firms. In a mature industry, but with a low level of internationalization, formal institutions play a deliberative role, representing the interests of the firms even at the regional level. In the IT industry, being a growing and emerging (regarding internationalization) industry, formal institutions still play a premature role because there is a variety of interests and low international representation of the firms. Under these terms, institutions are strategical because they are a source of credibility and legitimacy raising an effective way to make business (LUO, 2007; PENG; LUO, 2000). Consequently, the alignment of different institutional settings implies the superior performance of the firms that are part of this institutional environment (GAMMETOLFT et al., 2012).

Considering that cooptation mediates the relationship between the adherence to formal institutions and international performance, several points can be discussed. Qualitatively, cooptation showed an influence on the relationship between formal institutions and international performance. However, the difference between the characteristics of each industry promoted different levels of cooptation and, consequently, partially explained the different levels of internationalization of the firms. In this sense, institutions improve the

performance of firms through relationship strategies such as coopetition (MARIANI; KYLÄNEN, 2014).

Firms in the footwear and IT industries presented an initiation phase of coopetition and firms of the wine industry advanced to evaluation phase according to the typology of Dorn et al. (2016). However, the footwear and IT industries have different paths and characteristics that, in part, justify the different level of internationalization of the firms in each industry. Firms of the footwear industry work in a declining industry, but with a path dependence based on the internationalization of the firms since their foundation. The Brazilian IT industry, despite the born globals (which are the most recent and exceptional cases in our country), was subject for many years to governmental protectionism that did not require internationalization efforts from the firms. As a result, IT industry firms are still starting their internationalization process, simultaneously with market growth. The wine industry, in turn, has the most advanced level of coopetition, which has supported the development of the internationalization of the firms. In this case, the internationalization of Brazilian wine generates gains of legitimacy both in the foreign market and in the domestic market, as well as learning gains and networks, promoting an increase in the competitiveness of wineries facing foreign competitors in the domestic market.

The results confirm that coopetition allows achieving better results than competition and cooperation due to all the gains that are beyond the creation of networks (PENG et al., 2011) and the intensity of the competition between the firms. For example, coopetition for the internationalization of firms creates an exchange of experiences, learning gains, and expansion of relationship networks through contact with other firms, formal institutions, and events. It increases the number of strategic options, reducing dependence on the domestic market; leads to recognition by legitimacy, and establishes new relationship strategies. In these terms, co-participation, especially with the support of formal institutions, promotes the gains that cooperation would provide, but give results leveraged by the intensity of competition between the firms.

However, the firms to have these results through coopetition with the support of formal institutions, they must first possess the organizational resources necessary to participate in the formal institutions. Second, firms must actively engage and participate in the project of each formal institution, considering its rules and practice norms (LAWRENCE, 1999). In this case, formal institutions are responsible for promoting the learning, to reduce transaction costs, and to promote the internationalization of the firms, besides creating barriers to the new members. Thus, coopetition allows firms to access resources they do not

have separately, thus maximizing their performance. Third, for the firms, it is imperative to analyze the boundaries of the areas where they can cooperate and compete with each other, as well as establish a strategic balance between competition and cooperation (LUO, 2005). Lastly, the dynamics of cooptation alone involves the inter-dependency between firms and institutions (DELIGONUL et al., 2013).

From the quantitative results and the models tested, the following must be discussed.

The results showed a positive and significant relationship between the adherence to formal institutions and international performance. The relevance of institutions to create the firms' international business strategies is emphasized (PENG et al., 2008). However, few studies have identified the role of the formal institutions for the international performance of the firms, such as the one by He and Wei (2013) and Pla-Barber and Escribá-Esteve (2006). In the studies mentioned above, the formal institutions – named as institutions' networks – are only one of the constructs that aim to understand the international performance of the firm. Also, the authors do not consider other variables in institutional networks such as learning gains, cost reduction, generation of intelligence about markets, and so forth. Thus, this thesis presumes that formal institutions are more than the networks established by them, considering the firms' willingness to adhere to the formal institutions.

In these terms, formal institutions are one of the sources of competitiveness to promote the internationalization of the firms. Formal institutions can promote the insertion of firms in the international market, mitigating institutional voids or even searching to balance the forces with foreign competitors from developed economies. However, the impacts of the actions of the institutions are different for each industry within one single country (KALLAS et al., 2015). In Model II, international experience (INTEXP), revenue (REV), general experience (GENEXP), and industry (IND) were used as control variables. INTEXP and REV are positive and significant in this model, suggesting that firms with greater international experience and revenues will have more gains from formal institutions and, consequently, it will affect their international performance. In this case, the gains are not only from networks as predicted by He and Wei (2013) and Pla-Barber and Escribá-Esteve (2006), but also learning, production, and dissemination of technical knowledge and generation of intelligence about foreign markets, relationship networks, and relationship strategies, thus reducing transaction costs and promoting the internationalization of firms. In these terms, the political influences of firms with more international experience and revenues may be relevant even to precise the guidelines of the adherence to formal institutions that control the strategies of certain industries, aiming for specific firms to have a better international performance, being

those are more experienced and generating a higher revenue for the industry. On the other hand, these firms attract a higher visibility of results for the formal institutions.

On the other hand, general experience (GENEXP) is negative and significant in Model II. Thus, the greater the firm's overall experience is, the smaller the gains from formal institutions and, consequently, the international performance will be. In this case, the interviews with more experienced representatives of firms have shown that these firms prefer to work separately, both about other firms and to formal institutions. Consequently, its international performance may be compromised, since representatives of firms with greater GENEXP may develop higher expectations with INTPER over time, affecting the satisfaction with the international performance (SATPER). Firms that have been around for a longer time have a path dependence that creates a greater expectation of the international performance, unlike firms that have just started their activities. Similarly, firms with a larger international experience will be more aligned with each other to have a higher level of satisfaction with the international performance.

At this point, it is relevant to point out that the international performance (INTPER) was only measured through satisfaction with the international performance (SATPER). Financial performance (FINPER) and strategic performance (STRPER) have not been validated in the model. Only SATPER was fit with the model, because this construct includes the individual objectives of each firm, regardless of the sample heterogeneity. In this case, researchers must look at topics such as causality and endogeneity, by addressing technical solutions or by adopting their research design (MEYER et al., 2017).

In Model II the control variable industry (IND) was also considered, which did not present significant results for the different behaviors of the industries compared to the IT industry. Thus, it has not been possible to check if and how the industry influences the relationship formal institutions-international performance.

Coopetition is mediating the relationship between adherence to formal institutions-international performance: the mediating effect of the coopetition is positive and significant in the formal institutions and international performance. On the one hand, firms use formal institutions to promote coopetition (MARIANI, 2007; KYLÄNEN; MARIANI, 2012) and improve the performance of the firms (CZAKON, 2009; MARIANI; KYLÄNEN, 2014). On the other hand, rarely coopetition has been measured by quantitative instruments and specially articulated with international performance. The results of the Model III showed that coopetition (DCOOPCOM) positively mediates the relationship between adherence to formal institutions (FORINS) and international performance (INTPER). In this research, coopetition

occurs when competition and cooperation are noted in domestic and international markets simultaneously, but with opposite strategies between markets. Thus, this result is in line with Chim-Miki and Bailey-Canine (2017) who refer to the construct cooperation that acts as the mediator of the dimensions to improve the system results.

In Model III, the control variables international experience (INTEXP), revenues (REV), general experience (GENEXP), and industry (IND) had the same behavior than in Model II. In these terms, INTEXP and REV are positive and significant in this model, while GENEXP is negative and significant, and IND was not significant.

Firms using the formal institutions may have benefits (MARTIN, 2014) and, through cooperation, they can have a better performance (BOUNCKEN; FREDRICH, 2012). At this point, firms seek to use cooperation with the support of the formal institutions following the internationalization objectives of each firm and the industry as a whole. This attitude reinforces the view of cooperation where different firms cooperate in several areas (e.g., marketing, and foreign trade) and compete (production and commercialization) simultaneously, to generate benefits to those involved by sharing resources and knowledge aiming at a subsequent division of the results which might be superior to the isolated gain. Similarly, there is competition in the domestic market and cooperation in the international market, aiming to create the brand of national products and the internationalization of firms with the support of formal institutions.

Regardless of the strategy, the firms seem to understand, with some exceptions of larger firms, that formal institutions are sources of competitiveness for the international insertion of firms. In this sense, individual strategies can be leveraged through joint strategies based on cooperation. Formal institutions aim to provide resources (whether they are financial or non-financial ones, such as knowledge) to promote the internationalization of the firms. Formal institutions can promote learning, relationship networks, relationship strategies, production and dissemination of technical knowledge, generation of intelligence about external markets, branding, cost reduction, and business internationalization. Cooperation, in turn, is the relationship strategy that enhances the influence of the formal institutions within each industry and, consequently, explains a part of the international performance of the firms.

In the last chapter, the conclusion of this research is presented.

9 CONCLUSION

To answer the research question “what is the relationship between formal institutions and international performance of firms from an emerging economy taking into account the role of the cooperation?”, the main objective of this thesis was to highlight how formal institutions influence the performance in the internationalization of firms from emerging economies taking into account the role of cooperation. The primary objectives were: i) to understand the relationship between formal institutions and international performance; ii) to analyze if and how cooperation influences the relationship between formal institutions and international performance; iii) to develop a model encompassing formal institutions, international performance, and cooperation; iv) to evaluate qualitatively and quantitatively the relationships proposed in the model.

This research achieved the main objective, highlighting the relationship between formal institutions and international performance of firms from an emerging economy while taking into account the role of the cooperation. Thus, the qualitative method promoted the understanding of "how" and the quantitative method promoted the understanding of "how much" formal institutions influence the international performance of the firms from emerging economies, considering the relevance of cooperation in this environment.

On the first objective, this research analyzed the role of formal institutions, from political and economic perspectives, in the cooperation strategy between firms in an emerging economy. This objective was accomplished based on the characterization of the formal institutions in each industry, by identifying theoretical contributions of the propositive, deliberative, and premature roles of the formal institutions. Therefore, the characteristics of each industry and their path towards internationalization were mapped. In the second objective, this research presented the level of cooperation (DORN et al., 2016), considering the role played by the formal institutions, the level of the internationalization of the firms, and the characteristics of each industry. The theoretical contributions are based on enhancing the studies that aim to understand the role of the formal institutions on cooperation (i.e., MARIANI; KYLANEN, 2014), by identifying and analyzing how cooperation interacts with the characteristics of each industry. Thus, relevant factors influencing the relationship between cooperation and formal institutions-international performance of the firms, such as product life-cycle, the role of the government, level of internationalization, and role of the formal institutions, were observed.

In the third objective, this research presented different models aiming the relationship between formal institutions (independent variable) and international performance (dependent variable), considering cooperation as a mediator variable. The results showed the influence of the cooperation between formal institutions and international performance. The theoretical contributions are based on a new perspective that considers the equation among cooperation, formal institutions, and international performance, presenting with quantitative findings.

On the fourth objective, qualitatively, it was created a framework that included the influence of the formal institutions on the cooperation strategy. It is called Institutional Approach on Cooperation. It was described strategies between firms can occur in several plans. This approach analyzed cooperation from a multi-dimensional view, considering the influence of institutional arrangements on cooperation, competition, and cooperation strategies. In this sense, this new perspective of the cooperation that regards the role of the formal institutions can be considered a theoretical contribution. Quantitatively, formal institutions promote the international performance of the firms, and this relationship is potentiated by cooperation. Statistical analysis confirmed both relationships in this case. Moreover, a scale was created to measure a dynamic strategic behavior as cooperation through competition and cooperation in domestic and international markets. Therefore, this research answered the research question considering the achievement of the main and specific objectives. In these terms, this research showed the relationship between formal institutions and international performance of firms from an emerging economy taking into account the role of the cooperation. However, to respond this question, it was relevant to understand how and how much formal institutions influence the international performance of the firms. Both cases, cooperation was used to understand the relationship between formal institutions and international performance and, mainly, it was viewed as an amplifier of these results in the selected industries.

This study offers two different levels of contributions, such as theoretical, industrial, and public policy levels. From the theoretical perspective, qualitatively, this research presented a theoretical framework that turns formal institutions closer to cooperation. Considering the different concepts of cooperation, few studies have analyzed its multidimensional nature. Therefore, identifying the role of formal institutions in cooperative strategies between firms in the same industry is a relevant contribution to the advancement of this field. This is especially true for emerging economies in which firms have fewer resources and capabilities than firms from developed markets and need institutional support to be competitive. Establishing a perspective on cooperation in networks seems to be more

promising than limiting studies to coopetition in supply chains since the relationships are more complex and multi-directional between participants. Moreover, the influence of formal institutions on coopetition strategies in networks can redefine levels of trust and commitment, thereby resetting the balance or imbalance of inter-firm power.

Moreover, there is a mapping how occurs the relationship among formal institutions, international performance, and coopetition according to each industry characteristics. In this sense, the different roles of the formal institutions and levels of coopetition and internationalization were highlighted to improve the studies about this relationship and contributes to fulfilling the gaps indicated by Bouncken et al. (2015), Dorn et al. (2016) and Galdéano-Gomez et al. (2016).

Quantitatively, this research presented results based on a scale developed to measure coopetition. The challenge was how to capture the dynamic behavior of the coopetition using competition and cooperation in domestic and international markets and measuring the intensity of this coopetition to the firms. In this case, the results contribute to responding questions about coopetition not so how coopetition affects the firm performance (RITALA, 2012) but how much coopetition affects the international performance of the firms starting from a multidimensional concept of performance (PENG et al., 2011).

There have been few attempts to understand the dynamics of coopetition that simultaneously consider external and internal environments. Rather, coopetition has been analyzed separately and only through the chosen unit of analysis. Institutions are rarely taken into account in studies of coopetition strategies. Consequently, an equation that aims to understand the relationship between coopetition, institutions, and international performance should further the theory. Therefore, industries from emerging economies are an appropriate object of study in this context because of the institutional differences about developed economies where the majority of studies has been conducted. The institutional fragilities of emerging economies amplify the influence of institutions in promoting coopetition within an industry aiming to enhance its international performance. At the industrial level, this research highlighted the differences, and the path dependence in each industry. By identifying the drivers that characterize each industry, were analyzed the outcomes based on the levels of internationalization and coopetition and of the formal institutions' role. It is relevant to draw this wide scenario to explain the difference in the results between the industries researched, thus contributing to the representatives of the firms. At a public policy level, this research contributed to presenting the different roles of the formal institutions and how they influence the internationalization of the firms. At the same time, the influence of the coopetition was

emphasized to increase the international performance of the firms. However, it is relevant for the formal institutions, and mainly for the government, to consider the differences in each industry because of the institutional arrangements that shape markets (MIONE, 2009). Consequently, this study clarifies this point is presenting the drivers and outcomes in footwear, winery and IT industries.

Despite its contributions, this study is subject to boundary conditions. First, the investigation occurred in a single country. Comparative studies can explain how and how much formal institutions and cooptation influence international performance of the firms, including in other industries. Second, the primary scale considered to measure the international performance of the firms based on financial, strategic performance, and their satisfaction with their performance in international operations (ZOU et al., 1998). However, the constructs financial performance and strategic performance were not validated. Only satisfaction performance was validated and, in this case, the perception of the respondents is based on a proxy for international performance. Third, again about the perception of the respondents, this study has a transversal feature. Thus, it means that respondents reflect their responses based on their perceptions of a momentum. A longitudinal research could evaluate if the relationship between formal institutions, international performance, and cooptation is persistent or not.

At the end of this study, other avenues of the investigation appeared. First, this study did not measure domestic performance and its relationship among formal institutions, international performance, and cooptation. Domestic performance can bring different answers to this relationship, prompting new questions. Second, this research focused on the inter-firm level, disregarding individual, intra-firm and network levels. As one specialist in the footwear industry has mentioned, the industries gather in clusters that need the firms to adopt cooptation practices to fight against other clusters. In this sense, competition does not occur only between firms and countries anymore, but also between clusters. Third, this study was based on cooptation as a process, disregarding cooptation as context. Cooptation as context could analyze chains of agents that add value to the firms (BRANDENBURGER; NALEBUFF, 1995). Fourth, another promising avenue for research is to explore how decisions of a political nature influence the institutions that coordinate the researched industries, which would provide a new perspective on the cooptation and in the internationalization of the firms involved.

Lastly, the research framework proposed here appears a promising direction for future attempts to investigate cooptation and institutions within an integrated analytical framework.

The proposed scale associated with the previous framework seems promising for research on transcribing cooperation and formal institutions under the same view. More robust institutions have a greater influence to promote cooperation strategies. Industries from emerging economies are adequate due to the institutional differences between the studies conducted in the developed countries. The institutional fragilities of the emerging economies can further the influence of the institutions in promoting the cooperation within an industry aiming to enhance the international performance. Thus, strategies are being conducted at more complex levels, involving organizational strategies and institutional influences. Cooperation means dealing with strategy and choices; reciprocity and restrictions; interdependence and influences. Thus, it is not enough to analyze cooperation disregarding the role of institutions. Under these terms, associating cooperation, institutions, and international performance in emerging economies are understood to open an avenue of investigation and contributions to the theory.

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APPENDIX A – INTERVIEW WITH THE FIRMS

Objectives	Topics to be observed	Questionnaire	Theoretical support
Introduction	Interviewee's background: Experience in firm International experience Knowledge about topics to be covered	How long have you been working in this company? How long have you been working in this industry? What is your international experience? Characteristics of the industry What is the relevance of this firm in this industry?	—
Understanding the business strategies of this firm	Cooperation Competition Coopetition	Shares or compete for the same (physical, financial, human, technological, organizational) resources with competitors Works alone or together with my competitors? Identifies some of these characteristics when (if) cooperates with competitors: a) common strategic goals; b) mutual benefits; c) to expect to reap collective results higher than the individual results; d) risks of opportunism Cooperates in some areas/markets and competes in other areas	Padula; Dagnino (2007) Gulati et al. (2000), Nieto; Santamaria (2007), Ritala; Hurmelinna-Laukkanen (2013) Choi et al. (2010), Zineldin (2004), Bengtsson; Kock (1999, 2000), Gnywali et al. (2006, 2008), Ritala (2012), Gulati et al. (2000) Bengtsson; Kock (1999, 2000, 2014), Roy; Yami (2009), Bouncken et al. (2015)
How do the formal institutions influence the firm's business strategies in emerging economies?	Decision-making of firms from the political and economic perspective of the Neo-institutional theory	Main formal institutions in this industry and their roles Influence (intervention) of government in this industry Performance of trade associations, industrial agencies, tax bureaus, state banks, commercial administration bureaus and universities.	Peng (2009), Peng et al. (2008), Dunning; Lundan (2008, 2010), La Porta et al. (1999), Ramamurti (2012), Gammetolft (2010)

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<p>How do formal institutions affect the international performance of firms in emerging economies?</p>	<p>International performance of the firms under influence of the formal institutions</p>	<p>Relevance of the internationalization strategies for the international performance of the firm (depending on the host country, formal institutions) Indicators used to monitor the international performance of the firm (considering the period of time used): a) profits; b) sales; c) export sales growth; d) contribution of overseas operations to the competitiveness of the firm; e) strategic positioning; f) market share Level of satisfaction with the current stage of internationalization of the firm Main institutional factors that impact on international performance: a) exchanging rate; b) tax barriers; c) normatization; d) bureaucracy; e) bilateral agreements or among groups of countries</p>	<p>Zou et al. (1998), Carneiro; Rocha (2011), Garrido et al. (2016) Zou et al. (1998) Cuervo-Cazurra; Genc (2008), Cuervo-Cazurra et al. (2014), Gammetolft et al. (2012), Kostova et al. (2008), Lazzarini (2015)</p>
<p>What is the relevance of coepetition and how it occurs, in the relation between formal institutions and international performance?</p>	<p>How does coepetition mediates the relationship between formal institutions and international performance in emerging economies</p>	<p>How do formal institutions foster coepetition (when firms cooperate in an area or market and compete in another area or market at the same time) to promote the internationalization of firms in emerging economies? Is it a non-planned (emergent) or a planned (deliberated) strategy designed by formal institutions? To whom it is more profitable? Are they small, medium-sized or large companies? Why would formal institutions be interested in this strategy to be successful?</p>	<p>Deligonul et al. (2013), Amighini et al. (2010) Mariani (2007), Kylanen; Mariani (2012) Mariani; Kylanen (2014)</p>

APPENDIX B – INTERVIEW WITH FORMAL INSTITUTIONS

Objectives	Topics to be observed	Questionnaire	Theoretical support
Introduction	Interviewee's background: Experience in formal institution International, political or economic experience Knowledge about topics to be covered	How long have you been working in this formal institution? How long have you been working in this industry? What is your expertise in your career? Characteristics of the industry	—
Understanding the business strategies of these firms	Cooperation Competition Coopetition	Shares or compete for the same (physical, financial, human, technological, organizational) resources with competitors Works alone or together with my competitors. Identifies some of these characteristics when (if) cooperates with competitors: a) common strategic goals; b) mutual benefits; c) to expect to reap collective results higher than the individual results; d) risks of opportunism Cooperates in some areas/markets and competes in other areas	Padula; Dagnino (2007) Gulati et al. (2000), Nieto; Santamaria (2007), Ritala; Hurmelinna-Laukkanen (2013) Choi et al. (2010), Zineldin (2004), Bengtsson; Kock (1999, 2000), Gnywali et al. (2006, 2008), Ritala (2012), Gulati et al. (2000) Bengtsson; Kock (1999, 2000, 2014), Roy; Yami (2009), Bouncken et al. (2015)
How do the formal institutions influence the firm's business strategies in emerging economies?	Decision making of firms from the political and economic perspective of the Neo-institutional theory	What is the role of the formal institution in this industry? a) learning; b) relationship networks; c) cost reduction; d) internationalization of the industry; e) promotion of the country as a brand Main formal institutions in this industry and their roles Influence (intervention) of government in this industry Performance of trade associations, industrial agencies, tax bureaus, state banks, commercial administration bureaus and universities.	Peng (2009), Peng et al. (2008), Dunning; Lundan (2008, 2010), La Porta et al. (1999), Ramamurti (2012), Gammetolft (2010)

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<p>How do formal institutions affect the international performance of firms in emerging economies?</p>	<p>International performance of the firms under influence of the formal institutions</p>	<p>Relevance of the internationalization strategies for the international performance of the firm (depending on the host country, formal institutions) Indicators used to monitor the international performance of the firm (considering the period of time used): a) profits; b) sales; c) export sales growth; d) contribution of overseas operations to the competitiveness of the firm; e) strategic positioning; f) market share Main institutional factors that impact on international performance: a) exchanging rate; b) tax barriers; c) normatization; d) bureaucracy; e) bilateral agreements or among groups of countries</p>	<p>Zou et al. (1998), Carneiro; Rocha (2011), Garrido et al. (2016) Zou et al. (1998) Cuervo-Cazurra; Genc (2008), Cuervo-Cazurra et al. (2014), Gammetolft et al. (2012), Kostova et al. (2008), Lazzarini (2015)</p>
<p>What is the relevance of coopetition and how it occurs, in the relation between formal institutions and international performance?</p>	<p>How does coopetition mediate the relationship between formal institutions and international performance in emerging economies?</p>	<p>How do formal institutions foster coopetition (when firms cooperate in an area or market and compete in another area or market at the same time) to promote the internationalization of firms in emerging economies? Is it a non-planned (emergent) or a planned (deliberated) strategy designed by formal institutions? To whom it is more profitable? Are they small, medium-sized or large companies? Why would formal institutions be interested in this strategy to be successful?</p>	<p>Deligonul et al. (2013), Amighini et al. (2010) Mariani (2007), Kylanen; Mariani (2012) Mariani; Kylanen (2014)</p>

APPENDIX C – DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean		Std. Deviation		Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error	
cmd1	166	1	7	5.00	.131	1.684	-.354	.188	-.815	.375	
cmd2	166	1	7	4.40	.129	1.662	-.043	.188	-.801	.375	
cmd3	166	1	7	5.13	.114	1.475	-.530	.188	-.169	.375	
cmd4	166	1	7	4.97	.119	1.535	-.458	.188	-.346	.375	
cmd5	166	1	7	4.98	.120	1.547	-.496	.188	-.290	.375	
cmd6	166	1	7	3.67	.136	1.752	.310	.188	-.772	.375	
cmd7	166	1	7	3.20	.130	1.670	.578	.188	-.475	.375	
cmd8	166	1	7	2.28	.123	1.583	1.134	.188	.390	.375	
cmd9	166	1	7	2.42	.122	1.569	.848	.188	-.286	.375	
cmd10	166	1	7	2.16	.118	1.527	1.311	.188	1.020	.375	
cmd11	166	1	7	2.14	.117	1.511	1.310	.188	1.119	.375	
cmd12	166	1	7	2.71	.137	1.765	.669	.188	-.762	.375	
cmd13	166	1	7	3.20	.145	1.863	.348	.188	-1.016	.375	
cmd14	166	1	7	2.21	.122	1.578	1.490	.188	1.619	.375	
if1	166	1	7	4.41	.138	1.772	-.293	.188	-.800	.375	
if2	166	1	7	3.05	.159	2.049	.559	.188	-1.015	.375	
if3	166	1	7	3.31	.152	1.962	.468	.188	-.934	.375	
if4	166	1	7	3.40	.149	1.926	.333	.188	-1.058	.375	
if5	166	1	7	3.98	.142	1.836	.054	.188	-.958	.375	
if6	166	1	7	3.44	.136	1.753	.331	.188	-.827	.375	
if7	166	1	7	3.46	.133	1.708	.413	.188	-.689	.375	
if8	166	1	7	3.59	.129	1.666	.234	.188	-.798	.375	
if9	166	1	7	3.56	.138	1.780	.262	.188	-.926	.375	
if10	166	1	7	2.95	.132	1.701	.766	.188	-.307	.375	

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pmd1	166	1	7	4.86	.094	1.206	-.234	.188	.260	.375
pmd2	166	1	7	4.70	.100	1.290	-.256	.188	-.026	.375
pmd3	166	1	7	4.51	.103	1.327	-.247	.188	-.160	.375
pmd4	166	1	7	4.48	.112	1.446	-.578	.188	.093	.375
pmd5	166	1	7	4.69	.093	1.195	-.278	.188	.464	.375
pmd6	166	1	7	4.63	.093	1.197	-.414	.188	.876	.375
pmd7	166	1	7	4.49	.096	1.239	-.431	.188	.356	.375
pmd8	166	1	7	3.92	.107	1.384	.046	.188	-.321	.375
pmd9	166	1	7	4.01	.102	1.314	-.060	.188	-.255	.375
cmi1	166	1	7	4.55	.145	1.873	-.365	.188	-.823	.375
cmi2	166	1	7	3.99	.150	1.931	.009	.188	-1.072	.375
cmi3	166	1	7	4.90	.126	1.623	-.549	.188	-.379	.375
cmi4	166	1	7	4.85	.127	1.635	-.509	.188	-.465	.375
cmi5	166	1	7	4.75	.131	1.693	-.493	.188	-.552	.375
cmi6	166	1	7	3.62	.144	1.851	.292	.188	-.816	.375
cmi7	166	1	7	3.20	.146	1.882	.448	.188	-.847	.375
cmi8	166	1	7	2.48	.143	1.837	1.114	.188	.105	.375
cmi9	166	1	7	2.60	.139	1.792	.989	.188	.035	.375
cmi10	166	1	7	2.31	.138	1.781	1.221	.188	.371	.375
cmi11	166	1	7	2.22	.126	1.623	1.312	.188	.890	.375
cmi12	166	1	7	2.85	.152	1.953	.723	.188	-.760	.375
cmi13	166	1	7	3.11	.159	2.048	.512	.188	-1.092	.375
cmi14	166	1	7	2.28	.133	1.711	1.489	.188	1.469	.375
pmi1	166	1	7	4.49	.137	1.761	-.364	.188	-.716	.375
pmi2	166	1	7	4.14	.135	1.742	-.169	.188	-.943	.375
pmi3	166	1	7	3.87	.144	1.849	-.010	.188	-1.016	.375
pmi4	166	1	7	4.30	.133	1.717	-.322	.188	-.673	.375

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APPENDIX D – QUESTIONNAIRE FOR THE COMPANY

Dear Participant,

This research addresses cooperation and competition strategies among firms. All information provided here will be kept strictly confidential and private. These data will be used for research purposes only.

This research is part of a doctorate thesis by Jefferson M. Monticelli, for the Program of After-Graduation in Business Administration (PPGA), Universidade do Vale do Rio dos Sinos. Should you have any questions, please contact us (jeffmarlon@hotmail.com, 51-99944-8559, or by calling the PPGA Office at Unisinos (51-3590-8186). Thank you for your collaboration.

In the following, we ask you to evaluate the strategies adopted by the firm with competitors in the same field in the domestic and in the international market. Please indicate how much you agree with each of the following statements regarding behaviors of the firm where you work (1= completely disagree; 7 = completely agree)

Answer the questions below and keep in mind **the domestic market** in which the firm operates:

STRATEGY

	The firm where I work, in the domestic market, ...	Theoretical Background	Completely disagree 1	2	3	4	5	6	Completely agree 7
1	Has a collaborative behavior in the relationship with its competitors.	Gulati et al. (2000), Nieto; Santamaria (2007)							
2	Develops actions with its competitors that promote joint learning and experience exchange.	Kotzab; Teller (2003), Ritala; Hurmelinna-Laukkanen (2013)							
3	Is known by the trust in the relationship with my competitors in the domestic market.	Morris (2007) Zineldin (2004)							
4	Is known for the reciprocity in the relationship with the competitors.	Zineldin (2004)							
5	Is known for the commitment in the relationship with its competitors.	Morris (2007) Zineldin (2004)							
6	Develops conjoint actions with my competitors to achieve mutual benefits.	Morris (2007)							
7	Has informal cooperation agreements with competitors.	Osarenkhoe (2010) Bengtsson; Kock (1999)							
8	Aligns strategies with its competitors.	Choi et al. (2010)							
9	Improves competitiveness through conjoint actions with its competitors.	Tomski (2011)							
10	Shares strategic goals with its competitors.	Zineldin (2004)							
11	Shares (physical, financial, human, technological, organizational) resources that are complementary with its competitors.	Choi et al. (2010)							
12	Creates new market opportunities together with its competitors.	Morris et al. (2007)							
13	Shares information and knowledge with its competitors.	Rai (2013), Osarenkhoe (2010), Kotzab; Teller (2003) Baumard (2008)							
14	Shares costs in conjoint actions with its competitors.	Gnywali; Park (2009) Choi (2005)							

FORMAL INSTITUTIONS (Private, governmental, or mixed-source entities with a specific purpose. For example, Apex-Brasil works to promote the internationalization of Brazilian firms)

	My firm...	Theoretical Background	Completely disagree 1	2	3	4	5	6	Completely agree 7
1	Has benefits or enhances its network through trade associations, research centers, associations, or unions.								
2	Aims to use networks and connections with political leaders at various levels of the government, both in the domestic market and in the international market.	He; Wei (2013); Pla-Barber; Escribá-Esteve (2006)							
3	Aims to use networks and connections with industrial agencies or bureaus in various levels of the government, both in the domestic market and in the international market.	He; Wei (2013); Pla-Barber; Escribá-Esteve (2006)							
4	Aims to use networks and connections with officials in domestic and international regulatory and supporting organizations, such as tax bureaus, state banks, commercial administration bureaus, and universities.	He; Wei (2013); Pla-Barber; Escribá-Esteve (2006)							
5	Has benefits such as learning and dissemination of technical knowledge with the help of formal institutions.								
6	Has cost-cutting benefits with the help of formal institutions.								
7	Has strategic and networking formatting benefits with the help of formal institutions.								
8	Has benefits as the creation of intelligence on domestic and international markets with the help of formal institutions.								
9	Has benefits as the business internationalization with the help of formal institutions.								
10	Approaches domestic and international competitors only when influenced by the government or other previously mentioned institution (e.g., business association, university).								

PERFORMANCE IN THE DOMESTIC MARKET

	The firm where I work, in the domestic market, ...	Theoretical Background	Completely disagree 1	2	3	4	5	6	Completely agree 7
1	Has made satisfactory profits in the last three years.	Zou et al. (1998)							
2	Has created a high volume of sales in the last three years.	Zou et al. (1998)							
3	Has achieved rapid growth in the last three years.	Zou et al. (1998)							
4	Has improved its international competitiveness in the last three years.	Zou et al. (1998)							
5	Has strengthened its strategic position in the last three years.	Zou et al. (1998)							
6	Has significantly increased our market share in the last three years.	Zou et al. (1998)							
7	Has had a satisfactory performance in the domestic market in the last three years.	Zou et al. (1998)							
8	Is satisfied with initiatives in the domestic market in the last three years.	Zou et al. (1998)							
9	Has completely met the expectations with initiatives in the domestic market in the last three years.	Zou et al. (1998)							

Answer the questions below and keep in mind **the international market** in which the firm operates:

STRATEGY

	The firm where I work, in the international market, ...	Theoretical Background	Completely disagree 1	2	3	4	5	6	Completely agree 7
1	Has a collaborative behavior in the relationship with its competitors.	Gulati et al. (2000), Nieto; Santamaria (2007)							
2	Develops actions with its competitors that promote joint learning and experience exchange.	Kotzab; Teller (2003), Ritala; Hurmelinna-Laukkanen (2013)							
3	Is known by the trust in the relationship with my competitors in the domestic market.	Morris (2007) Zineldin (2004)							
4	Is known for the reciprocity in the relationship with the competitors.	Zineldin (2004)							
5	Is known for the commitment in the relationship with its competitors.	Morris (2007) Zineldin (2004)							
6	Develops conjoint actions with my competitors to achieve mutual benefits.	Morris (2007)							
7	Has informal cooperation agreements with competitors.	Osarenkhoe (2010); Bengtsson; Kock (1999)							
8	Aligns strategies with its competitors.	Choi et al. (2010)							
9	Improves competitiveness through conjoint actions with its competitors.	Tomski (2011)							
10	Shares strategic goals with its competitors.	Zineldin (2004)							
11	Shares (physical, financial, human, technological, organizational) resources that are complementary with its competitors.	Choi et al. (2010)							
12	Creates new market opportunities together with its competitors.	Morris et al. (2007)							
13	Shares information and knowledge with its competitors.	Rai (2013), Osarenkhoe (2010), Kotzab; Teller (2003) Baumard (2008)							
14	Shares costs in conjoint actions with its competitors.	Gnywali; Park (2009) Choi (2005)							

INTERNATIONAL PERFORMANCE

	The firm where I work, in the international market, ...	Theoretical Background	Completely disagree 1	2	3	4	5	6	Completely agree 7
1	Has made satisfactory profits in the last three years.	Zou et al. (1998)							
2	Has created a high volume of sales in the last three years.	Zou et al. (1998)							
3	Has achieved rapid growth in the last three years.	Zou et al. (1998)							
4	Has improved its international competitiveness in the last three years.	Zou et al. (1998)							
5	Has strengthened its strategic position in the last three years.	Zou et al. (1998)							
6	Has significantly increased our market share in the last three years.	Zou et al. (1998)							
7	Has had a satisfactory performance in international ventures in the last three years.	Zou et al. (1998)							
8	Has made satisfactory international ventures in the last three years.	Zou et al. (1998)							
9	Has completely met the expectations with international ventures in the last three years.	Zou et al. (1998)							

Demographic data:**Additional information**

When was the firm founded? _____

When did the firm begin the international trade activities? _____

With how many countries is the firm involved when it comes to activities of international trade today?

What is the relative participation of the international trade activities in the total income of the business?

What is the size of the firm, according to the number of collaborators?

- Micro (up to 19 employees)
 Small (20 to 99 employees)
 Medium (100 to 499 employees)
 Large (equal to or more than 500 employees)

What is the size of the firm, according to the gross operating income for the last tax year?

- Micro (less than or equal to R\$360,000)
 Small (more than R\$360,000 and less than or equal to R\$3,6 million)
 Medium (more than R\$3,6 million and less than or equal to R\$300 million)
 Large (more than R\$300 million)

How old are you? _____ years-old

Gender: female male

Educational level: _____

Current position: _____

APPENDIX E – CORRELATIONS

		COODOM	COOINM	FORINS	INTPER
COODOM	Pearson Correlation	1	.648**	.499**	.189*
	Sig. (2-tailed)		.000	.000	.015
	N	166	166	166	166
COOINM	Pearson Correlation	.648**	1	.387**	.187*
	Sig. (2-tailed)	.000		.000	.016
	N	166	166	166	166
FORINS	Pearson Correlation	.499**	.387**	1	.221**
	Sig. (2-tailed)	.000	.000		.004
	N	166	166	166	166
INTPER	Pearson Correlation	.189*	.187*	.221**	1
	Sig. (2-tailed)	.015	.016	.004	
	N	166	166	166	166

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Table based on 166 respondents' results.

APPENDIX F – SKEWNESS AND KURTOSIS

	N	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
COODOM	166	1.00	7.00	2.4466	.10244	1.31979	.979	.188	.296	.375
COOINM	166	1.00	7.00	2.5613	.11910	1.53453	1.175	.188	.762	.375
FORINS	166	1.00	7.00	3.4011	.11882	1.53085	.427	.188	-.793	.375
INTPER	166	1.00	7.00	3.6308	.11831	1.52428	-.119	.188	-.801	.375
Valid N (listwise)	166									

Source: Table based on 166 respondents' results.