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Formation of coopetition: the role of managerial perception and individual level network

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ABSTRACT

Background

The strategy of coopetition, applied by competing firms who decide to cooperate with each other in specific fields, so as to join resources and knowledge (Brandenburger and Nalebuff, 1996), in the last years has acquired higher visibility than in the past, even if it had been widely exploited even before the definition of the term itself (Bouncken, 2015).

Aim

With the increase of literature about coopetition and its outcomes, one question arises, how does coopetition begin? This research aims to answer to this question, exploring managerial perceptions about coopeting activities and the key role of a solid individual network necessary to form a coopetition.

Methodology

This, by exploiting a qualitative method with semi-structured interviews towards managers of different companies who horizontally cooperate with competitors for different reasons. Data analysis will be conducted through content analysis, and interpreted maintaining an analytical generalizability so to provide objective results. Quality criteria are transparency, reliability and validity.

Contribution

This explorative study is divided in two main parts. Firstly, it provides an analysis of the perception of managers about coopetition, so as to present the strategy and its implications with words coming directly from who is involved in it, without simply estimating their point of view. Then, it analyzes in details why managers decided to enter into coopetition and the ongoing consequences, so to provide an individual perspective of the reasons for which companies begin coopeting activities and how the relationship evolves during time. In order to study this managerial relationship, the fundamental step is to deeply investigate the network theory, which is the root of this research. By exploring the networking relationships, it is possible to provide insights about the differences in strong and weak ties in the business fields, in order to delineate the reasons for which the theory applies. Moreover, the research will support further managers with their decision to exploit coopeting activities, through a detailed study about the importance of individual network, and how the relationship changes and evolves during the period of coopetition.

Keywords: Coopetition, Managerial Relationships, Networking Relationships, Individual Level, Explorative Study

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1. INTRODUCTION

1.1 Context

In nowadays business reality, the phenomenon of coopetition, the hybrid behavior of firms embracing competition and cooperation, has become an important domain for commercial practices (Devece et al, 2017; Chin et al. 2008; Hannachi and Coléno, 2015). As consequence, its importance has increased in strategic management as well (Gnyawali et al, 2006; Ketchen et al, 2004; Mathias, et al, 2016), which led to a boost in literature interest. This is due to its ability to emphasize the increasing importance of dynamics among firms (Dagnino & Padula, 2002), to create additional value compared to what a single company alone could develop, to share risks and increase knowledge (Gnyawali & Carleton, 2018) and to enhance new product development (Bouncken et al, 2017).

The importance growth of coopetition in industrial practices and the consequent increase of literature interest, are related to an incrementing necessity to cope with fast business dynamics and uncertainty, coming from market globalization that leads to an aggressive knowledge-based economic competition (Bouncken et al, 2015). In order to start profitable coopeting activities, individual managers create their inter-firm network with managers from competing companies, so as to facilitate the flow of knowledge and resources, which are more likely to be new and different compared to the once coming from cooperating managers (Mu et al. 2008; Cote, 2019).

Coopetition has been investigated by several authors under different perspectives; many researchers conducted studies trying to better understand this controversial relationship among firms, that radically modifies the linearity of thought for which firms either compete, or cooperate (Gnyawali & Park, 2011). The term was used for the first time by Brandenburger and Nalebuff (1996) in their book named “Coopetition”, considered as "the game theory strategy that's changing the game of business". Furthermore, the authors note that the players have different perceptions of the world, thus the game could have a final scope that cannot be envisioned yet (Presley Noble, 2020).

Later on, coopetition has been studied in several fields, to define the interfirm relationship (Gnyawali & Carleton, 2018; Osarenkhoe, 2010; Mira et al, 2015) and to study the tension among coopeting firms (Fernandez et al. 2013; Jain at al. 2013), to underline its importance for radical innovations (Bouncken et al. 2017; Ritala, 2013; Park et al. 2013) and to emphasize the value creation as outcome (Bouncken et al, 2015).

This collaboration with competitors has been highly underlined in network theories (Burt, 1992), which analyze the competitive relationship from an individual point of view. For instance, they state that the competitive fields consist of a group of individuals that is connected with other individuals from other groups. Thus, in these connections coming from different groups, the relationship can be based on growing trust and supporting each other, or only for exchange of information and resources (Burt, 1992; Cote, 2019). The benefits coming from a relationship among individuals with similar and complementary resources and information are based on a mixture of competition and opportunities (Burt, 1992).

1.2 Problem Statement, Gaps and Research Question

As reported above, there is increasing evidence of the crucial role that coopetition plays in worldwide business relationships (Devece et al, 2017). Despite this, inconsistency on the definition of the strategy and the incompatibility among the different literature perspectives is an on-going problem. Particularly, there is a necessity from managers to understand whether the strategy is reliable, meaning of being able to provide results that might be perceived as trustworthy from managers and researchers. For instance, literature lacks in analyzing their personal and individual perspective, while it focuses more on the coopeting relationship among managers seen as a process mostly influenced by external environments (Dahl, 2013).

Thus, although coopetition and individual networks have been highly studied (Brandenburger & Nalebuff, 1996; Lado, Boyd & Hanlon, 1997; Gnyawali & Madhavan, 2001), the literature has two main gaps in defining this strategy and its development. The first, is based on the fact that literature tends to offer two highly polarized views of coopetition (Gnywaili & Charleton, 2018); on one side it provides only the positive aspects, such as value creation (Gnywaili & Charleton, 2018; Dagnino & Padula, 2010), incrementation of radical innovation (Bouncken et al. 2017), reduction of costs and constructive share of knowledge (Osarenkhoe, 2010), while on the other side it underlines the likelihood of value destruction and potential losses (Cygler & Sroka, 2017). Secondly, literature lacks of empirical studies of the network applied in business contexts, which is explained only by Burt (1992) with his research on Structural Holes (Cote, 2019).

Keeping in mind the main literature shortages about coopetition, the aim of this study can be expressed by the following research question and consequent sub-questions;

What drives managers to consider coopetition as a viable strategy?

SQ1: What is the perception of managers about coopetition?

SQ2: What is their propensity about coopetition?

SQ3: What is the role of networking?

SQ4: How does the role of network develop over time?

1.3 Contributions

The research will academically contribute with insights on what is the perception of managers themselves about coopetition through different case studies. Furthermore, the study underlines the importance of network among managers of competing companies, considered as the basis of each cooperating activities. This study will fill the gaps of the previous literature by providing deep research on the correlation of strong and weak ties applied into business fields. From a more practical point of view, this research, due to the data collected and the consequent discussion, will contribute with showing other companies how and why managers decide to enter into coopetition, what is behind the decision and its consequences. This, to help companies to better know how coopetition works and the managers' individual drivers, with a focus on the importance of having a valid network. Without it, managers do not have the basis to try to enter into coopetition. With these additional researches, companies may more likely decide to consider coopetition as a valid alternative to exchange information and share knowledge and risks. Thus, the research supports the creation of synergy among companies by providing all the information on how to begin the strategic alliance.

This study aims to provide an analysis of coopetition from managers' perception, starting from how and why they decided to start cooperating activities. This research is conducted from the individual level of managers, and it underlines the importance of their network analyzing this internal relationship from its formation until the evolution during time.

1.4 Exposé Structure

The research firstly provides an in-depth analysis of the theoretical framework, which includes exhaustive explanations about the main subjects discussed; coopetition and how it can be described and studied through game theory, the importance of both network relationship and individual level network, and it includes an alternative theory, the interorganizational network theory, which would lead to the same results as the individual one, but without focusing on the individual importance of managers' perception. Finally, the last part on the Strength of Weak Ties (SWT) Theory explains the theory on which the study is based on, and that links together coopetition and individual network theory.

Subsequently, the text explicates the main propositions of the study, which underline and clarify its importance for both managers and researchers. Then, the literature review provides an extensive exposition of the most important articles and papers used in this study for the highest reliability.

The following chapter covers the methodology and the sample of the research. In order to achieve a detailed study on personal perspective and individual network of managers who engaged in coopetition, the most profitable method of research is the qualitative research method, which through semi-structured interviews provides essential insights that will become the basis of the research discovery. This is fundamental to elaborate a final result of the study. Finally, there is a specific section for expected contributions, deeply relevant for explaining the reasons for which the research is originally conducted. Hence, contributions will be mainly provided for business managers and researches on individual networking theory. The former considering that the results will underline and better explain the importance and the consequences of coopetition, while the latter will be supplied with an innovative application of the Granovetter's network theory, implemented on the relationship among managers of competing companies.

2. THEORETICAL FRAMEWORK

This section covers the summary and the explanation of the major concepts and theories of the research. The aim is to define how the main theory will be applied in the qualitative study, and why another theory, equally valid, have been considered as “alternative theory” and thus not applied in the research. This part is of relevant importance as it closely analyzes the main components that are taken into consideration to develop at its best the final model, based on the results of the ongoing research. Hence, this analysis represents the fundamental starting point of the study, as it critically analyses the theories and measurement methods that will be practically applied later on.

Although the same definition implies that firms are the ones firstly involved in the choice on whether to enter into coopetition, this research focuses on the main character, the one who takes the formal decision on the business plan of the firm and the strategies to follow; the manager. Thus, after a clear explanation of what coopetition is from a managerial overview and from a different, more economical, perspective; the study focuses on the individual implications of coopetition from the point of view of managers, and how they decide to form it in the first place. This leads to the explanation of network theory, and the importance of individual networking among managers.

2.1 Coopetition

While traditionally the relationship among firms was either competitive or cooperative by nature, nowadays firms can compete and cooperate with each other at the same time. This relationship is called coopetition (Walley, 2007).

In the following sub-chapters, there is first explained the term under a managerial and marketing perspective of the concept, while later on there is provided a parenthesis about the economical point of view of coopetition.

2.1.1 Conceptualization of the Term

The term coopetition was used for the first time by Brandenburger and Nalebuff (1996) in their book named “Coopetition” and, to explain this controversial strategy, they used the metaphor of a pie. Initially, firms join their forces in a cooperative way as their first mutual aim is to bake the biggest possible pie. Once the pie has been conjointly made, the firms’ strategy switches from cooperating to competing. This, due to the fact that each firm now aims to obtain the largest possible slice of the cake for itself. Mainly, competing firms join their resources, values and knowledge and, at the same time, compete with each other to gain the largest market power at the expense of the other players (Bouncken et al. 2015). In other words, firms predominantly cooperate in input activities so as to increase their value (e.g. R&D activities, promotion of standards, design implementation and development) and compete for the output activities, such as increase in security, cost reduction, and other possible characteristics of usage (Crick M & J, 2020).

Before coopetition emerged as the current business strategy, competition and cooperation were traditionally used separately in order to describe the types of relationship among firms (Bouncken et al. 2015). The competitive perspective is applied when there are divergent interests among the parties involved, as each firm’s goal is to achieve more profits at the expense of its competitors. On the other hand, the cooperative perspective is based on convergent interests. Thus, here the main interest is to gain common and not individual goals, using collective actions instead of single ones. The bottom line is that through strategic alliances, networks, and other partnerships, companies aim to rise their performance considering that resources, knowledge, and risks can be shared (Gnyawali and Charleton, 2018).

Nowadays, coopetition is rising the interest of many companies, who exploit it as basis for their new business model (Kotzab and Teller 2003; Walley, 2007) considering it as tool for increasing their value, improving productivity and quality, boosting research and development, accessing to raw materials and reducing risk (Meyer 1998). Furthermore, these alliances are meant to rise profits for the organizations involved, but it is important to note that they also lead to improve products and services for the consumer (Walley, 2007).

2.1.2 Game Theory

This sub-section focuses on explaining coopetition from a purely economic point of view, through the game theory, even if in the research it will always be analyzed from a more managerial perspective, as seen above.

Brandenburger and Nalebuff (1996), referred about coopetition as "the game theory strategy that's changing the game of business", considering it more as a chess match, in which parties are interdependent with each other, and the move of one person influences the subsequent moves that the other party (or parties) will make. Furthermore, the authors note that the players have different perceptions of the world, thus the game could have a final scope that cannot be envisioned yet (Presley Noble, 2020).

First of all, when talking about coopetition in game theory, it is important to remember that it incorporates both cooperation and competition, and thus when defining the game there are needed at least two types of strategies and matrices (Ahn et al. 2007). We can suppose that two firms, A and B have to choose between "cooperation" and "competition" for a single game through two different types of strategies, "Strategy X" and "Strategy Y". The figure below [Figure 1] shows the payoffs to both firms, respectively. As shown, for strategy X both firms choose competition, while for strategy Y, cooperation. Hence, because both competition and cooperation dominate in the same game, the final equilibrium will be considered coopetition (Carfi and Okura, 2014).

Figure 1: Cooperation and Competition Game¹

		[Strategy X] Firm B				[Strategy Y] Firm B	
		Cooperation	Competition			Cooperation	Competition
Firm A	Cooperation	6,2	3,3	Firm A	Cooperation	6,6	1,5
	Competition	3,3	5,5		Competition	5,1	4,4

In this example, both firms choose cooperation as it is the best possible outcome for both parties. This is only an example of the simultaneous game, in which the players take decisions at the same time without knowing what is the other's move (Ahn et al. 2007). The second type of game is the sequential game, in which players know the moves of the other parties that have already adopted a specific strategy and the others can react as consequence. However, in order to explain how cooperation works, the simultaneous game provides sufficient information.

A practical example of cooperation is the work of Ohkita and Okura (2014), who analyze whether game software firms are better off in investing or not in the protection of game software's intellectual property rights. The game is divided in two perspectives. First, firms prefer to cooperate in investing so as to reduce the amount of illegal software firms in the market. However, even those firms who don't invest in the IPR (Intellectual Property Right) protection will gain it automatically, thus it is only needed someone to invests in it. In the other hand, firms compete in the quantity of software they would like to invest in protection for. Hence, in this situation the only possible outcome is for firms not to invest, because they both would prefer the other ones to do it [Figure 2].

¹ Source: Carfi and Okura (2014). Cooperation and Game Theory. *Journal of Applied Economic Sciences*, vol. 9, issue 3(29), pp. 458-469, 2014

Figure 2: Investment Game²

		Firm B	
		Investment	No Investment
Firm A	Investment	6,6	1,8
	No Investment	8,1	2,2

Both firms would have been better off with investing, so as to reduce the number of illegal software firms; however, the benefit from jointly investing would affect also the non-invested firms, which provides an incentive not to invest.

However, this situation can be remedied through a coordinating firms investment strategy, such as the coopetition strategy. For instance, the conclusion is that firms of game software join in associations in exchange for a membership fee used for setting the industry standard for investment, so that cooperatively, firms join their resources against illegal distributors of game software, remaining independent and competitors in the other fields (Ohkita and Okura, 2014; Carfi and Okura, 2014).

2.1.3 Individuals and Coopetition

As already explained in the previous sections, coopetition is a complex and controversial strategy, and a key role in ensuring a positive outcome from the relationship is the ability of managers to supervise these situations. Considering the competing field in which the firms find themselves to collaborate, the relationship among their managers is filled with tensions based on the contradictory dimension in which they are located (Bez et al.). To conclude with positive outcomes, individual managers need to accept the paradox of coopetition and deal with it in their daily management of the company.

As Walley (2007) states, it is fundamental to have the right managers to direct coopeting activities, who are capable of establishing cooperative individual relationship with managers and lead the company on a competing path against the same individuals. Bex and at.

² Source: Ohkita and Okura (2014). Coopetition and coordinated investment: protecting Japanese video games' intellectual property rights. *International Journal of Business Environment* 6(1):92 - 105

in their study on coopetition on an interpersonal level, underline the importance of the integration principle on an individual level among individuals, who have to work together cooperating and competing at the same time. This is based on understanding each other's role, so as not to risk misunderstandings and conflicts due to lack of clarification. Those managers that are able to integrate coopetition in their daily activities are fundamental in creating positive effects in terms of performance (Gnyawali et al., 2018) and in determining positive results from the strategy (Luo, 2007).

This starting point is necessary to define the importance of understanding individual relationships among managers before and during the establishment of coopetition, as it may determine its positive outcome (Bex et al. 2017). In the following section, there is defined how the research aims to analyze this relationship, applying the network theory of Granovetter (1973; 1983) based on individuals.

2.2 Network Theory

This section focuses on network theory, so as to understand how it can be applied in the context of coopetition. For instance, as stated before, this research aims to understand the role of the individual relationships among competing firms' managers, thus their network. For this reason, the following part provides an in-depth explanation of what is a network and how it works, then it focuses more on the importance of individual networking. Then, there is the analysis of an alternative theory, the interorganizational network theory, with the explanation of the reasons for which it was not chosen as main theory to apply in the research. Finally, it covers the theory of Granovetter on the Strength of Weak Ties, which is the network theory that will be applied on the data collected through the qualitative study, so as to define whether it holds for competing managers and to build the final model of the new discovery.

2.2.1 Definition and Conceptualization

Network theory studies the mechanisms and processes of the network structure that lead to specific outcomes for groups and individuals (Brass, 2002). Considering that a network is composed by a set of actors linked to each other for possible different reasons, the theoretical part of network analysis is mainly formed by studying the network structure and actors' position, and then by the relating these factors to group and individuals' outcome (Borgatti and Halgin, 2011).

When analyzing a network, it is the researcher that defines which network to study, choosing the set of individuals and the type of interconnection between them. For instance, every individual has several interpersonal relationships, based on the different activities that they conduct (work, gym, family). For example, within an organization there are already several possible networks, such as interpersonal relationship within a single department, then the network within the whole organization, and the relation with people in the same industry (Brass et al. 2004). Thus, it is the researcher who decides the specific interconnection that they are willing to study, and the choice should be dictated by the research question and based on an explanatory theory (Laumann et al, 1983).

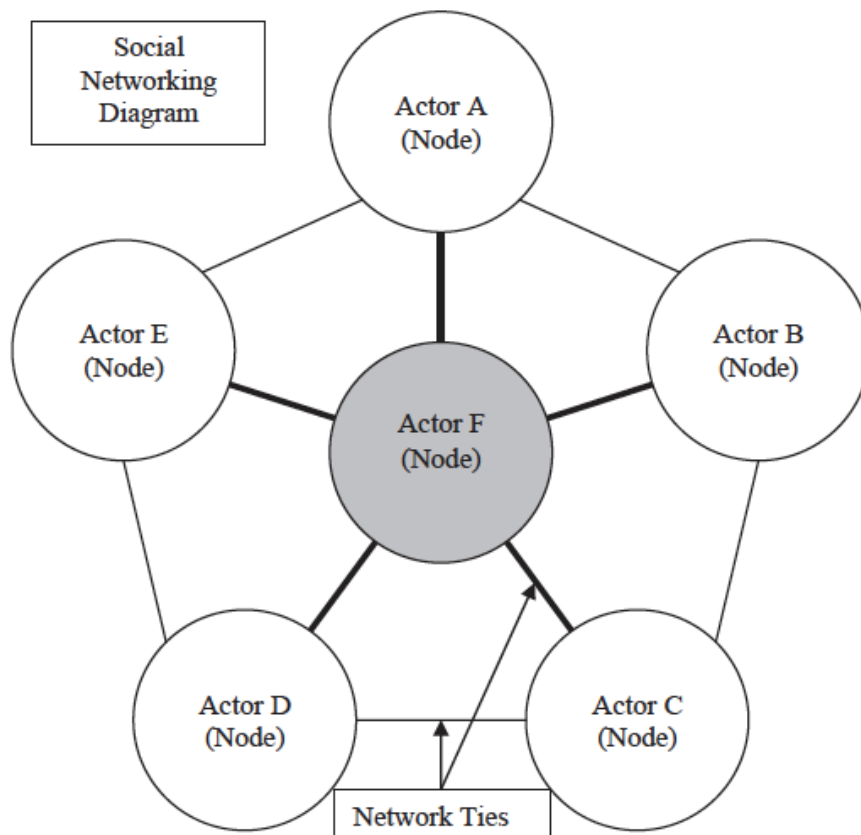
In this research, the focus is on studying and analyzing relationship among managers from horizontal competing companies, with priority on how they create their network, how they start to cooperate despite the competition among them, and how the changes in personal relationships influence and are influenced by the ongoing process of coopetition. It is important to underline that companies compete horizontally, which implies that companies compete in the same level; for example, in production, research and development, improvement of new technologies, and so on (Zgarni, 2019). This, so as to better define which type of coopetition the study analyses; the coopetition among firms that coopete on the same level of production. Moreover, the study is based on one of the main network theories, the Granovetter's theory on the Strength of Weak Ties, which will be explained in detail later on [subchapter 2.3].

2.2.2 Networking Relationship

Networking relationship, or social networking, is defined as a relationship developed among individuals for several reasons, such as mutual interests, friendship, share of information, and other beneficial motives (Cote, 2019). The reason behind the importance of network relationship is that it ensures a flow of knowledge and information from all the parties, which leads to opportunities that ensure benefits for the whole period in which the network lasts (Cote, 2019).

Going more in depth with the appropriate terms, the actors of the network, such as individuals, groups or business units, are called nodes, and the connection among the different nodes are defined as ties. Thus, the whole composed of several ties connected with each other that link the single nodes, is known as the networking relationship (Borgatti and Foster, 2003) [Figure 3].

Figure 3: Networking Relationship Diagram represents the configuration of the Network, Actor(s), and Ties³



Focusing on companies, actors can be connected together in different ways and for several reasons, but a main distinction made by Borgatti and Halgin (2011) is that there can be internal connections within the same department, group or business units, and external connections with individuals from other companies, consumers or suppliers. By exploiting networks and by interacting with different partners to pool knowledge and relevant information, network ties allocate firms at the confluence point of different possible domains (Mu et al, 2008), creating opportunities for combining ideas, integrating solutions and enhancing the overall productivity. As Figure 3 shows, there can be different types of ties, and thus of relationships among individuals; depending of this relationship the strength of the network and the advantages coming from it, can change.

³ Source: Cote (2019). The Evolution of Social Network Theory: Perceived Impact on Developing Networking Relationships. American Journal of Management Vol. 19(3) 2019; Adapted from “The Network Paradigm in Organizational Research: A Review and Typology,” by Borgatti, S., & Foster, P., 2003, Journal of Management, 29(6), p. 991.

2.2.3 Individual Level Network

A central part of network theory is based on analyzing individuals under the perspective of a network. They are not considered as single, individual units, but more as organizational actors who can be fragmented in different sets of ties' compositions, who form several connections with others in an elaborate combination of ties (Brass et al. 2004). According to the network perspective, individuals tend to analyze the relationships on the base on who can better provide opportunities and benefits, which highly differs from the traditional perspective, which is more based on examining actors individually. Thus, the change is in the focus of the choice, which traditionally was on individual attributes, while in a network it is mainly on relations (Brass et al. 2004). As consequence, the action of each individual is shaped by the network in which they are located, because it is the intersection of the relationships that delineates each individual's role and responsibilities (White et al. 1976).

Brass, Galaskiewicz, Greve and Tsai (2004) in their analysis on networking, stated that there are several internal factors that can influence formation and stability of networks from an individual perspective. Actors' characteristics, as capabilities and resources, have a strong impact on the networks, and affects the actor's preferred type of network, through their individual's ability to shape their favorite network. Individual characteristics have an important role in affecting network's relationships, such as resources and ability to moderate, and often individuals consider themselves as critical in more networks, as they provide opportunities for actors in different networks to meet and to for interpersonal ties (Brass et al. 2004).

As shown, there are several ways to define a network and the advantages in taking part of it. This research focuses on understanding the role of networking relationship when entering into coopetition from the individual perspective of managers. The aim is to define how, why and when they decide to begin a coopetition and how the networking relationship with competing actors affects this decision. Furthermore, the analysis covers how the internal dynamics within the same network change during time, and how this influences the willingness to join resources and capabilities with the same individuals, and why.

2.2.4 Interorganizational Network Theory

Although individual network theory is the most appropriate theory for this research, it is not the only one that could be applied in order to define the role of network in establishing a

coopetition strategy. For instance, the following paragraph describes how an alternative theory, the interorganizational network theory, may bring similar results to the main one, and why it has not been chosen as root theory for this study.

Interorganizational network explains the interdependent tendency of organizations to interact across their boundaries, and the theory analyses the social structure between the different organizations interconnected among each other (Mitchell, 1969). The aim of the interorganizational network theory is to analyze the dyadic relationship among companies, so as to gain insight about the role of external actors in the ongoing of a specific company, studying their social structure with a focus on the opportunities and constraints provided by the companies' network (Bergenholtz and Waldstrom, 2011). For instance, the theory underlines the importance of the network in the overall organizational performance (Ahuja et al. 2008), and states that making conclusions about an organization's performance without adding its inter-organizational framework will not provide accurate results (Ahuja et al. 2008). It mainly studies the interactions among companies and the importance of their network in the overall organization's performance. Thus, it is explicit the similarity between the interorganizational network theory aim with the aim of the individual network theory; for instance, they both come from the principles established by the general network theory.

When talking about coopetition among firms, the interorganizational network theory might be applied as well to explain the importance of relationships among competing firms, and it could analyze the interdependence between the strength of the network and the positive outcome of the coopeting activities, providing similar results as the individual theory. However, using this alternative theory would signify not analyzing the interpersonal relationship among managers of competing firms, and the study would remain on a more organizational level. Thus, in order to search and examine more deeply the importance of individual managers network during companies' coopetition; the individual network theory, is the most appropriate theory to apply in this study.

2.2.5 Strength of Weak Ties Theory

Granovetter's theory of Strength of Weak Tie (SWT) is the main theory the research is based on.

The premise from the general network theory is that everyone is connected with other individuals through ties, which can be more or less strong, as for example friends connected with each other. This connection among different individuals forms a network. Every network

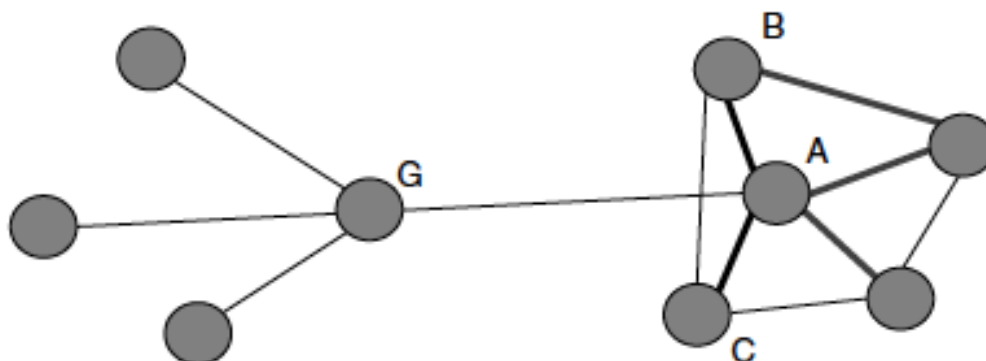
has a particular structure formed by the pattern of ties, and each node has a specific position within this structure (Borgatti and Halgin, 2011).

Granovetter's theory is based on studying why there are differences in the outcomes of ties among nodes, and his answer is based on whether ties are weak or strong; thus, how weak or strong is the relationship among individuals. Weaker the tie, weaker the relationship.

Following the previous statement, in 1973 Granovetter in his SWT theory stated that the strongest is the tie that links individuals, the higher is the probability that their interactions may overlap, and so they probably share ties with the same people. For instance, if A and B have a strong relationship (so a strong tie), and B and C have a strong relationship; probably A and C at least know each other, thus have at least a weak tie. From an anthropological perspective (McPherson et al. 2001), the fact of being similar to each other is the reason for which individuals tend to form networks in the first place. Hence, if A and B are similar, there is a higher possibility that have a strong tie. Then, if B is similar to C and they have a strong tie, A and C are probably similar too, and thus they are likely to have at least a weak tie.

Based on this assertion, Granovetter stated that ties that link individuals who are not connected with each other in any other ways (called bridging ties) are a higher potential source of new ideas. The hypothesis behind this is that through a bridging tie, a person is more likely to hear something that has not being said in their normal ties, because it comes from a source outside of the general network. Looking at the image below [Figure 4], the bridging tie is between G and A, thus they provide the only flow of information from the first to the second set of ties (networks).

Figure 4: Bridging Tie from A to G⁴



⁴ Source: Borgatti, S., & Halgin D. (2011). On network theory. Organization Science, 22(5), 1359–1367.

Now, based on the previous two statements, the final Granovetter's theory observes that individuals connected through weak ties tend to generate more valuable information, because they are linked to other different people and different networks, and thus there is a higher chance to obtain different information than with a strong tie. This, because nodes connected with strong ties are more likely all connected with the same other nodes, and reach high redundancy with low possibility of new information.

Therefore, it is only weak ties that are likely to become bridges among different networks, and thus it is more probable that they can provide the best sources and new information.

In 1983, Granovetter did ulterior research on the Strength of Weak Ties, more focused on interpersonal relationships. For instance, he stated that in weak tie connections, individuals tend to be less socially involved than in a strong tie, considering that the latter is more likely to occur among friends. Thus, the conclusion is that weak tie relationships provide better benefits, such as new knowledge, new perspective and different information, more than if the people involved were closer friends.

This research will be based on the Granovetter's SWT theory, applied among managers of competing companies who cooperate with each other. The research implies that the relationship among them can be defined as a weak tie (Burt, 1992), considering that their organizational interpersonal relationships are probably their strong tie networks.

From this starting point, the aim is to define why the Granovetter's theory applies on coopetition, arising from the main definition of coopetition that states that firms strategically exchange information, knowledge and resources. This is the main reason for which Granovetter theorizes that weak-ties provide higher benefits for the nodes of the bridging tie.

Finally, a model will be defined following the discovery of the study.

3. PROPOSITIONS

The research aims to explore the perception of managers on the topic of coopetition and the importance of individual network. This goal is summarized in the already mentioned sub-research questions, and in this section, there are highlighted the following propositions that reflect them;

3.1 Individual networks play a central role in setting up a coopetition strategy

The research aims to discover in depth the key role of individual network of managers when the latter decide to engage in coopeting relationship among each other (Anklam 2007; Baker 2000), and how they developed their network (Borgatti & Halgin, 2011).

3.2 Manager's perception of coopetition plays a role in their willingness to enter into a strategy of coopetition.

This proposition is based on the willingness to investigate what managers feel and think about coopetition, based on their current and past experiences, which leads to a better understanding of their propensity to engage in coopeting activities (Burt, 1992). Considering the comprehensiveness of this proposition, it is possible to break it into smaller sub propositions;

3.2.1 Manager's perception of coopetition; it aims to define what is coopetition, and the individual perception of managers about this activity. This, in order to define their attitude towards coopetition, which includes their decision of when and why they decide to enter into coopetition, and the reasons.

3.2.2 The key role of the perception in the willingness to enter into the strategy of coopetition; this second section focuses on analyzing the importance of managers' perception about the strategy of coopetition, and how fundamental the role of the perception is, in the moment of deciding whether or not to begin the activity.

3.3 Changes in personal relationships influence the process of coopetition

The study researches how the relationship within the network among managers evolves during time, so as to analyze and define the evolution of the network itself (Dubini & Aldrich, 1991; Borgatti & Halgin, 2011).

4. LITERATURE REVIEW

The aim of the table below is to summarize the main articles which contributed the most to the development of the overall research; in particular the introduction, propositions and the theoretical framework.

Table 1: Literature Review

TOPIC	TITLE	AUTHOR AND JOURNAL	CONTRIBUTION
Network Theory	On network theory	Borgatti and Halgin, <i>Organization Science Journal</i> 22(5), pp. 1168–1181	This paper aims to clarify and explain the concepts and characteristics of how network works, identifying two network theories, Granovetter’s strength of weak ties theory and Burt’s structural holes theory.
Network Theory	The Evolution of Social Network Theory: Perceived Impact on Developing Networking Relationships	Cote Robert, <i>American Journal of Management Vol. 19(3) 2019</i>	This study explores and analyses research on social network paradigm by focusing on network ties in different social contexts.
Process of coopetition	Conceptualizing coopetition as a process: An outline of change in cooperative and competitive interactions	Johanna Dahl, <i>Department of Management and Organization, Hanken School of Economics</i> , 43 (2014) 272–279	This study focuses on how cooperative interactions change accordingly to their coopetitive relations. These interactions change in synchro with inter-organizational rules for interactions and the development of external environment.
Coopetition	Coopetition: a systematic review, synthesis, and future research directions	R.B. Bouncken, J. Gast, S. Kraus, M. Bogers, <i>Springer-Verlag Berlin Heidelberg</i> 2015	This paper focuses on the description of coopetition, the lack of objective research about the topic and several other points about it. Thus, it is a very detailed literature review.
Coopetition	Nuances in the Interplay of Competition and Cooperation: Towards a Theory of Coopetition	D.R. Gnyawali, T.R. Charleton, <i>Journal of Management</i> 2511-2534	The study is a literature review about the problems and a possible path towards the theory of coopetition.

Game Theory	Coopetition and game theory	Okura M. and Carfi D. (2014), <i>Journal of Applied Economic Sciences</i> , vol. 9, issue 3(29), pp. 458-469, 2014	This research focuses on how to utilize game-theory models in coopetition studies by bridging among coopetition and game theory.
Coopetition at individual level	Integration of coopetition paradox by individuals. A case study within the French banking industry	Bez S. M., Le Roy F, Dameron S. (2017). <i>XXIVème conférence annuelle de l'Association Internationale de Management Stratégique</i>	This study is based on understanding how managers cope with coopetition situations. It focuses on the idea that individuals need to cognitively accept the paradox of coopetition and integrate it in their daily activities.
Individual perspective in network theory	Taking Stock of Networks and Organizations: A Multilevel Perspective	Daniel J. Brass, Joseph Galaskiewicz, Henrich R. Greve and Wenpin Tsai (2017). <i>Academy of Management Journal</i> Vol. 47, No. 6	This research studies the actors in the interconnected network of relationships. It focuses on network consequences and analyses these interactions.
Methodology	"Research Methods for Business Students" Chapter 4: Understanding research philosophy and approaches to theory development	Sanuders N.K., Lewuis P, Thornhill A, Bristow A.	It is a book of research methods specifically for business students, which helps to understand which research method to apply and how to efficiently explain.
Inter-organizational theory	Inter-Organizational Network Studies – A Literature Review	Bergenholtz C and Waldtrom C (2011). <i>Industry and Innovation Journal</i> 18(6):539-562	This literature review provides an in-depth analysis of the previous studies about inter-organizational network theory.

5. METHODOLOGY

In this section, there is represented the methodology adopted to gain a deeper understanding of the topic. It begins explaining the reasons for the adoption of this specific research design, and continues with the sample illustration. This, is followed by the presentation of data collection, the method exploited and the subsequent analysis process so as to correctly store and examine data.

5.1 Qualitative Research Approach

Coopetition captured the attention of researchers, academics and managers as shown in the several studies conducted and published every year (Gnyawali et al, 2006; Ketchen et al, 2004; Mathias, et al, 2016), which is particularly due to the changes in conducting business and the increase of the globalization (Bouncken et al, 2015). However, despites the many books and articles, literature provides either positive or negative aspects about coopetition, basing their conclusions on single facts and literature reviews. Secondly, when talking about the decisions of companies about coopetition, there is not focus on the individual decisions of those in charge of business model planning and strategies planning, but more on the external factors that drive companies to begin to coopete. Hence, this study aims to fill this gap through identifying the individual perception of managers about the complex topic of the coopetition.

Furthermore, a complete analysis of individual reasons cannot come without an in-depth analysis of the internal drivers that push managers to coopete with someone more than with someone else. For this reason, the study covers even the importance of networking among competing managers when deciding whether to coopete and who with.

With these prerogatives, in order to intensively analyze the importance of individual network of managers when establishing a coopetition and their personal attitude towards the strategy, a qualitative study is necessary to exhaustively answer how, why and when coopetition begins. The aim of the research is to report the perception of managers about the difficulty of dealing with a strategy of that kind, including their relationship with other managers and how coopetition evolves through both referred interdependent factors. A reliable study of this degree cannot be defined through questionnaires and multiple-answers questions (Zimmerman, Lawrence Wieder, 1977). For this reason, this study is conducted by avoiding using any typology of pre-defined tests, and focuses on semi-structured interviews with the aim to receive and collect a notable amount of raw data about perception and firsthand

experiences. This, in order to likewise provide definition and analysis of the coopetition itself, without being influenced by past controversial analysis in previous studies.

5.2 Research Design

With the aims above-mentioned of the study, the most efficient way to gain qualitative data is through semi-structured interviews of managers from different companies, which will be conducted through online tools such as Zoom or Skype. This, due to both the physical distance from the interviewers and the limitations imposed as consequence of the spread of the Covid-19 virus. This research method will allow the respondents to provide their perspectives, thoughts and opinions about the topic, providing leading insights (Boyce & Neale, 2006). This because the open questions let the actual explanations of the topic coming directly from the interviewed, showing their knowledge and their thoughts.

On the other side, the interviewer necessitates to find the right balance between asking broader questions to gain insights, and precise questions to reach exactly the data required from the interview. The main structure of the interviews will be based on the research questions above-mentioned, and divided as following;

5.2.1 Biography. The first part is based on understanding the interviewed by starting the conversation with general questions about him/her past and current task within the company, and future perspective. This, in order to begin with not difficult questions and to establish a relationship knowing more about him/her and letting them talk more easily.

5.2.2 Understanding Term. This section focuses on the intention of introducing the main topic, coopetition and their perception. It is important not to ask too complicated questions such as “What do you think about coopetition?” but to provide the right hint to gain valuable insights, as “Why do you think people in general decide to enter into coopetition?”. The same process applies for defining the role of individual networks among managers. In this part, the difficulty is to find the right balance between not asking too broad questions which may lead to confused and not reliable answers, and providing personal questions so to gain subjective answers and not impersonal definitions. It may even be appropriate to solicit with personal situations, as “When you think about your first job as manager, do you remember any situation in which you thought of starting a coopetition?”.

5.2.3 Personal Attitude. At this point of the interview, the interviewed shall talk about his/her role and perception about the main topics, thus in this research about coopetition and importance of network. Here, there will be more precise questions about how they are currently

dealing with the subjects and its evolvement during time, considering that it is the main body of the interview. The manager is feeling confident and the first moments of hesitation should not be an issue at this time.

5.2.4 Context Factors. This is the last macro-section of the interview, in which the focus is more in the general context about coopetition and networking. The questions are more based on whether the interviewed can relate the specific topics in different contexts, such as “Could you describe another situation where you found yourself with a solid network but you did not start any coopeting activities?” or “If you think of your company, what can be the factors that mostly maintain your relationship with competitors?”.

5.3 Sample Description

The sample of the respondents is composed by managers in charge of the strategic decision-making process, thus those who define whether a company shall enter into coopetition.

The sample is from different Italian companies, which have different size, are placed in different sectors and provide different goods and services. Moreover, they have been chosen as they meet the main characteristic needed for the research; having exploited coopeting activities. The aim is to interview them once, however there is their availability to be interviewed more times, if necessary. When structuring the interview, the idea will follow the structure above-mentioned, but it may vary according to the direction the conversation will lead to. Finally, the interviews last about 20-40 minutes, depending on the time required to gather enough reliable data.

As already mentioned, the respondents are mainly reached through direct contact, such as family friends; however, there is the possibility to reach more people through indirect contact, mostly with LinkedIn. For now, the latter option has not been exploited.

5.3.1 Reliability

Especially in qualitative research, it is fundamental to maintain high reliability of data. In this study, reliability is ensured by accurate interpretation of the interviews’ transcriptions. All the information can, if needed, double-checked with respondents in order to confirm the interpretations concluded from the researcher. Furthermore, the comparison with the other responses can be used as confirmation of the other results. For this reason, having data from different managers is important. If possible, the transcriptions can be analyzed by an external subject and compared with the individual researcher’s perspective so as to confirm the theory concluded (Saunders, Lewis, Thornhill, 2009).

5.3.2 Validity

Validity shall to be consistent with the research question and the problem statement. This can be ensured by guaranteeing that the results are sufficiently relevant and able to be transmitted and applied in similar fields (Saunders, Lewis, Thornhill, 2009). It is fundamental that the topic outcomes can be transferred towards similar realities, such as a manager in other fields that can apply the same criteria and study for their network, as the managers interviewed have done.

5.3.3 Transparency

In qualitative researches, it can be difficult to linearly provide the explanation of the results and, mostly, it is challenging to clearly show the process from the decision to the topic until the analysis of the data. However, being transparent is a fundamental process to ensure both validity and reliability of the study (Kolbe and Burnett, 1991). Thus, through an in-depth explanation step-by-step of how the results will be provided, transparency is more likely to be perceived from the reader and the study assumes a more solid effectiveness. Furthermore, all the transcripts of the interviews will be provided, so as for the reader to have the possibility to analyze them and to compare the results given with raw data collected.

5.4 Data Collection

The interviews will be all recorded, so as to facilitate the focus on following the discussion and ask the most appropriate questions without the additional difficulty to take notes about the answers. A real-time transcription tool such as Google docs will be exploited so to transcript immediately the interview and be able to analyze more easily the answers. However, notes will be fundamental in describing the intonation of voice of the interviewed, whether there is a sarcastic sentence, etc. Thus, notes are needed to cover those parts that the automatic transcription tools cannot meet.

Moreover, considering that the interviews are all recorder, there is the possibility to use Speechnotes, whose Beta Version can transcribe pre-recorded audio files.

5.5 Data Analysis

Data will be analyzed with the software called Maxqda. Hence, the information collected from the interviews will be inserted into the software, which will deduct the relevant content, analyze and code it so as to provide objective results that will form the basis for further theoretical development of the research.

This, in order to give an objective basis to a highly subjective process, so as to increase the reliability of the study.

5.5.1 Content Analysis

The approach to better analyze the content of the interviews is called Gioia Methodology (Gioia, Hamilton, Corley, 2013). It is based on three steps.

- First-order codes, the starting point. This first part of coding is based on the division of what the key-informants (those who provide the profitable insights and data from all the sample examined) say. Thus, mainly it groups the main topics discussed using the informants' own words.
- Second-order codes (even called "Theoretical Categories"), which group the first-order codes based on the theories applied in the research to define the results.
- Aggregate dimensions, the last division. In this part, the theoretical categories are grouped together based on their similarities. This is considered the root structure of the data coming from the interviews.

6. EXPECTED CONTRIBUTIONS

The study will provide significant implications for both business managers and researchers on the topic of individual networking theory.

From the managers point of view, the results will highly underline the importance of entering into coopetition as a way to grow and share risks, with a detailed analysis of how, why and when to begin coopeting activities. This can also be used to provide workshops about collaboration among competing parties, showing the positive outcomes that shall arise from it. Furthermore, it will be helpful to understand how the perceptions of managers are relevant in the evaluation of different types of strategy. Secondly, the study will provide an innovative application of the Granovetter's theory on the Strength of Weak Ties (1973; 1983), implemented on relationship among managers of competing companies. The aim is to provide a deeper analysis of the theory through the understanding of why it holds.

Thus, the innovative component of the research regards not only the new aspects above mentioned, but also the main theory implemented, which may be unique in this field.

7. THESES CHAPTER OVERVIEW

In this section there is provided an overview of the final table of content of the theses, thus there are added some chapters and sub-chapters that are not included in the Exposé because not developed yet.

- i. Abstract: general overview of the topic of coopetition and network. The abstract is generally provided so as the reader is able to understand whether they might be interested in the development of the research since the first page. It includes the background of the topic, the aim of the study, the methodology used, contributions provided by the results and the keywords.
1. Introduction: presentation of coopetition and individual networking more in depth. It includes context and background of the subject, so as to provide information about the environment of the discussion. Moreover, it covers the problem statement of the topic, which is directly linked to the main gaps in the literature, and concludes with the contributions that will be provided by the results of the research. Mainly, it provides an analysis of coopetition coming from managers under their individual point of view, exploiting networking theory to define their relationship with the competing managers. The introduction concludes with the structure of the whole study.
2. Theoretical framework: definition of the most important terms and concepts used to define and structure the study. It analyses the terms coopetition and network theory and their application in the research.
3. Propositions: definition of the three main goals of the research; understanding the managerial perception of coopetition, the role of individual networks and the changes in the relationships during coopetition. They are defined following the research questions and sub-questions.
4. Literature Review: given to present the most important papers applied in the study.
5. Methodology: description of the method applied to collect and analyze data. The research is based on a qualitative research method with semi-structured interviews. It includes the description of the sample and explanation of data collection and data analysis.
6. Expected contributions: analysis of the expected implications for both business managers and researchers on the topic of coopetition and individual networking theory.
7. Results: analysis of data collected from the semi-structured interviews, which will provide the roots for constructing a model of the discoveries, which will be explained in this section.

8. Limitations and Future Research: individuation of the limitation implied in the study, and underlayment of future research that can be conducted on the same path of this study, mainly based on the results provided.
9. Conclusion: Summary of both the initial problem and results of the study, so as to provide a final overview of the whole research, from the beginning until the end.
10. References: List of all the papers used and cited for the study, following the APA system of referencing.

8. PLAN OF WORK

Table 2: Plan of Work

Plan of work - EMBS Master Thesis																						
ACTIVITES		September					October				November				December					January		
		36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	1	2	3
READING	Theoretical Framework																					
	Coopetition and Networking																					
METHODOLOGY	Interview Design																					
	Define Sample																					
	Interviews																					
WRITING	Data Cleaning																					
	Data Elaboration																					
	Coding																					
	Analysis of the results																					
	Integration framework																					
	Define Propositions																					
	Refinement																					
	Conclusion																					
	Speech																					
	PPT																					
PRESENTATION	Dissertation preparation																					
DEADLINES																						

9. REFERENCES

- Ahn T.K., Lee M, Ruttan L, Walker J. (2007). Asymmetric payoffs in simultaneous and sequential prisoner's dilemma games. *Springer Science + Business Media* 132: 353–366
- Ahuja G., Lampert M. C. and Tandon V. (2008). Moving Beyond Schumpeter: Management Research on the Determinants of Technological Innovation. *Academy of Management Annals*.
- Anklam P. (2007). Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World. *Butterworth- Heinemann, Woburn, MA*.
- Baker, W. (2000). Achieving Success Through Social Capital: Tapping the Hidden Resources in Your Personal and Business Networks. *Jossey-Bass, San Francisco*.
- Barney J. (1991). Firm Resources and Sustained Competitive Advantage. *The Academy of Management Review*
- Bergenholtz C. and Waldstrom C. (2011). Inter-Organizational Network Studies – A Literature Review. *Industry and Innovation Journal* 18(6):539-562
- Bez S. M., Le Roy F., Dameron S. (2017). Integration of coopetition paradox by individuals. A case study within the French banking industry. *XXIVème conférence annuelle de l'Association Internationale de Management Stratégique*
- Borgatti, S. & Foster P. (2003). The Network Paradigm in Organizational Research: A review and typology. *Journal of Management*, 29(6), 991
- Borgatti, S., & Halgin D. (2011). On network theory. *Organization Science*, 22(5), 1359–1367.
- Bouncken R. B., Gast J., Kraus S., Bogers M. (2015). Coopetition: a systematic review, synthesis, and future research directions. *Springer-Verlag Berlin Heidelberg*
- Bouncken R. B., Fredrich V, Ritala P and Kraus S (2017). Coopetition in New Product Development Alliances: Advantages and Tensions for Incremental and Radical Innovation. *British Academy of Management*
- Brandenburger A. M. and Nalebuff B. J. (1996) Coopetition.
- Brass D.J., Galaskiewicz J., Greve H.R., Tsai W. (2004). Taking stock of networks and organizations: A multilevel perspective. *Academia of Management Journal* 47(6):795–817.
- Burt R. S. (1992). Structural holes. *Wiley*.
- Carfi D. and Okura M. (2014). Coopetition and Game Theory. *Journal of Applied Economic Sciences*, vol. 9, issue 3(29), pp. 458-469, 2014
- Commons J. R. (1931). Institutional Economics. *American Economic Review*, Vol.21

- Cote R. (2019). The Evolution of Social Network Theory: Perceived Impact on Developing Networking Relationships. *American Journal of Management Vol. 19(3) 2019*
- Crick M. and J. (2020). Coopetition and COVID-19: Collaborative business-to-business marketing strategies in a pandemic crisis. *The International Journal of Marketing for Industrial and High-Tech Firms*
- Cygler J. and Sroka W. (2017). Coopetition Disadvantages: The Case of the High-Tech Companies. *Inzinerine Ekonomika-Engineering Economics*
- Dagnino G.B. and Padula G. (2002). Coopetition strategy. A new kind of interfirm dynamics for value creation. *EURAM – The European Academy of Management*
- Dahl J. (2013). Conceptualizing coopetition as a process: An outline of change in cooperative and competitive interactions. *Industrial Marketing Management Journal 43 (2014) 272–279*
- Das T. K. and Teng B. (2000). A Resource-Based Theory of Strategic Alliances. *Journal of management*
- Beyerlein M. M. (1949). Work Teams: Past, Present and Future. *Part of the Social Indicators Research Series book series*
- Devece C., Ribero-Soriano D. E. and Palacios-Marqués D. (2017). Coopetition as the new trend in inter-firm alliances: literature review and research patterns. *Review of Managerial Science*
- Dubini, P., Aldrich H. (1991). Personal and extended networks are central to the entrepreneurial process. *J. Bus. Venturing 6(5) 305–313.*
- Fernandez A. M., Le Roy F. and Gnyawali D. R. (2013). Sources and management of tension in co-opetition case evidence from telecommunications satellites manufacturing in Europe. *Industrial Marketing Management Journal*
- Gioia D. A., Hamilton A. L. and Corley K. G. (2013). Seeking qualitative rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods 16(1) 15-31*
- Granovetter M. S. (1973) The strength of weak ties. *The university of Chicago press Journal*
- Granovetter M. S. (1983) The Strength of Weak Ties: A Network Theory Revisited. *JSTOR Collection*
- Gynawali D. R. and Charleton T. R. (2018). Nuances in the interplay of competition and coopetition: towards a theory of coopetition. *Journal of management 2511-2534*
- Jain M., Khalil S., Johnston W. J. and Cheng J. M. (2013). The performance implications of power–trust relationship: The moderating role of commitment in the supplier–retailer relationship. *Industrial Marketing Management Journal*

- Kolbe R. and Burnett M. S. (1991). Content-analysis research: An examination of applications with directives for improving research reliability and objectivity. *Journal of Consumer Research*, 18, 243-250.
- Kotzab H. and Teller C. (2003). Value-adding partnerships and co-opetition models in the grocery industry. *International Journal of Physical Distribution & Logistics Management*
- Laumann, E. O., P. V. Marsden, D. Prensky (1983). The boundary specification problem in network analysis. *Applied Network Analysis: A Methodological Introduction*. Sage, Beverly Hills, CA, 18–34
- Lee, T. W., Mitchell, T. R., & Sablinski, C. J. (1999). Qualitative research in organizational and vocational psychology. *Journal of Vocational Behavior*, 55(2), 161-187.
- Luo, Y. (2007), A co-opetition perspective of global competition, *Journal of World Business*, 42, 129-144.
- Mamédio D, Rocha C. F., Szczepanik D and Kato H. T. (2019). Strategic alliances and dynamic capabilities: a systematic review. *Journal of strategic management*
- McPherson, J. M., L. Smith-Lovin, J. M. Cook (2001). Birds of a feather: Homophily in social networks. *Annual Rev. Soc.* 27 415–444.
- Meyer C. (1998). An introduction to complexity and business. *John Wiley & Sons, Inc.*
- Mira B., Robert M., Chiambaretto P and Le Roy F. (2015). Coopetition, bargaining power and product commercial performance. *XXIVe Conférence Internationale de Management Stratégique*
- Mitchell C. (1969). The concept and use of social networks. In: Mitchell C., ed. *Social networks in urban situations*. *Manchester University Press*, 1-50.
- Mu J., Peng G. and Love E. (2008). Interfirm networks, social capital, and knowledge flow. *Journal of knowledge management*
- Ohkita K. and Okura M. (2014). Coopetition and coordinated investment: protecting Japanese video games' intellectual property rights. *International Journal of Business Environment* 6(1):92 – 105
- Osarenkhoe A. (2010). A study of inter-firm dynamics between competition and cooperation – A coopetition strategy. *Journal of Database Marketing & Customer Strategy Management* volume 17, pages201–221
- Park B. J., Srivastava M. K. And D. R. Gnyawali (2013). Walking the tight rope of coopetition: Impact of competition and cooperation intensities and balance on firm innovation performance. *Industrial Marketing Management Journal*

- Ritala P. (2013). Coopetition for radical innovation: technology, market and business model perspectives. *Journal of Technology Analysis & Strategic Management*
- Saunders N.K., Lewis P. and Thornhill A. (2009). Research Methods for Business Students. *Pearson Education Limited*
- Teece D. J., Pisano G. and Shuen A. (1997). Dynamic capabilities and strategic management. *Technological Know-How, Organizational Capabilities, and Strategic Management*, pp. 27-51
- Walley K. (2007), Coopetition. *Int. Studies of Mgt. & Org.*, vol. 37, no. 2, pp. 11–31.
- Wang H. L. (2014). Theories for competitive advantage. *Faculty of business papers*
- Zimmerman D.H., Lawrence Wieder D. (1977). Diary – Interview method. *Urban Life*, Volume: 5 issue: 4, page(s): 479-498