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Who Should They Relate To? A Study For the Identification and Analysis of Criteria to the Partners' Selection in Inter-Organizational Networks

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ABSTRACT

The selection of partners is strategic in inter-organizational networks. One of the most important aspects is the definition of criteria for selection, that are the minimal characteristics required from those prospected. This study aimed to identify the most important criteria for the selection of members in horizontal inter-organizational networks, also describing their influence on network activities. First, we applied 120 questionnaires to managers of inter-organizational networks to identify the degree of importance of criteria previously treated in the literature. After, we interviewed 16 managers enabling us to identify other criteria, as well as understanding their influence on network activities. All of the 20 criteria from the literature were considered with significant importance by managers and the following criteria were added: trustworthiness, entrepreneur's profile and company lifetime. The results aim to contribute to the selection of partners and provide information for the construction of the inter-organizational networks literature.

Keywords: Inter-organizational networks, Partner's selection, Criteria, Quantitative and qualitative research.

1. INTRODUCTION

Inter-organizational networks are composed mainly, from the perception that the joining of forces between companies makes each company stronger before complex problems. Child and Faulkner (1998) claim that the cooperation between companies are generally established when two or more organizations collaborate with each other, facing a threat to the development, that is common to both, or even, before an opportunity that would not be achieved if the organizations acted individually. More recently, Gulati (2007) defined them as lasting agreements between two or more businesses involving exchange, sharing or co-development of products, technologies and services.

Despite the increasing use of inter-organizational networks, in organizational practice and in the literature there are still differences regarding the use of the term, as shown in the following excerpt:

Although inter-organizational networks are by now a commonly understood phenomenon of organizational life, it is not always clear exactly what organizational scholars are talking about when they use the term. Even the term network is not always used. Many who study business, community, and other organizational networks prefer to talk

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about partnerships, strategic alliances, inter-organizational relationships, coalitions, cooperative arrangements, or collaborative agreements. (PROVAN, FISH e SYDOW, 2007, p. 480).

The same authors introduced the term “whole network”, which they characterize as “a group of three or more connected organizations in order to facilitate the achievement of a common goal. That is, networks “...are often formally created and governed and objective-oriented, instead of occurring by chance” (PROVAN, FISH, SYDOW, 2007, p. 482).

Considering that inter-organizational networks may have different configurations, we note that the study objective present article are the inter-organizational networks characterized as follows: a) formally constituted legal organizations; b) have a certain period of existence; c) they seek to achieve the objectives of the partners as well as aiming to achieve their own goals; d) the power of decision is made in a participatory manner; e) they have an organizational structure regardless of the partner companies (QUATRIN, 2015).

Given the specifications, inter-organizational networks are formed by partner organizations, which must present a particular interdependence, aimed at the success of joint actions. Thus, in the selection of members to compose an inter-organizational network, it is imperative to trace and analyze the profile of prospected organizations, considering specific criteria. Beamish and Banks (1987) corroborate this statement by stating that the selection of partners influences the performance of inter-organizational networks.

Based on this context, we have the following research problem: which criteria must be observed when selecting partners in a horizontal inter-organizational network, aiming for a successful partnership?

To respond to the research problem, the present study aims to identify, from the literature and data collection, the important criteria for the selection of partners in horizontal inter-organizational networks, also describing their influence on network activities.

As a basis for this discussion, we then approach the theory relevant to inter-organizational networks, and more specifically, to the criteria for the selection of partners already identified in the context of various types of inter-organizational relationships. After, we report the method used in this study and, from there, we present and discuss the results. The last chapter of the article includes the final considerations, with an analysis of the results, assessment of contributions and limitations of the study, as well as suggestions for future studies.

2. INTER-ORGANIZATIONAL NETWORKS: CONTEXTUALIZATION

Inter-organizational networks are widely used strategies in order to join forces, because, according to Atouba and Shumate (2010), Lee and Monge (2011) and Müller-Seitz (2012), they are able to provide the generation of results that transcend the sum of individually earned organizational resources.

Facing the different types that can present inter-organizational networks, Gulati and Gargiulo (1999) distinguish horizontal networks and vertical networks, and this research is limited to the study of horizontal inter-organizational networks, which include companies in the same sector, and which remain legally independent and cooperate on predefined aspects (WEGNER and PADULA, 2010).

There are countless initial objectives established in the formation of inter-organizational relationships. The possibility to obtain increased bargaining power, access to new markets and scarce resources in inter-organizational relationships was dealt with by Pfeffer and Salancik (1978). Williamson (1985) addressed the motivation from the individual search for reduction of transaction costs, and Jarillo (1988) considers the motivation to compete strategically. Also, Keil (2000) cites five motivating factors for the formation of inter-organizational relationships: required formation, cost minimization, access to resources, learning, strategic positioning.

It is noteworthy that many inter-organizational networks are formed where the initial intention of partners is to obtain financial benefits. Lima (2007) noted that in different cooperation networks of Rio Grande do Sul, the entry of partners into networks was motivated primarily by the search for cost reduction, increased bargaining power and better prices and discounts, factors already diagnosed in previous studies and again highlighted in recent studies, related to a financial return (INGRAM and BAUM, 1997; KEISTER, 1998; GAZLEY, 2008; KUNZLER and BULGACOV, 2011).

Depending on the objectives for which there is the formation of a network, the criteria that will be analyzed in prospected companies different. In the context of inter-organizational relationships, the pursuit and achievement of planned objectives depend on the profile of partner companies, which refers to the importance of analyzing the partners selection criteria, discussed below.

3. CRITERIA FOR THE SELECTION OF PARTNERS

The profile of partners of an inter-organizational network is directly related to its operational area, and the results obtained in the activities performed together. In this sense, the selection of partners from the previously defined criteria analysis becomes essential for the sustainability of an inter-organizational network. Selecting good partners for inter-organizational networks leverages the business and improves the performance of all members of the network (EISENHARDT and MARTIN, 2000; IRELAND, HITT and VAIDYANATH, 2002).

The selection process, which involves the definition of criteria to be analyzed in the prospected companies, has been dealt with as being strategic in the functioning of inter-organizational relationships. Dacin, Hitt and Levitas (1997) claim that, although the search for suitable partners requires caution and time, the choice of partners is an important factor, that affects the performance of a relationship.

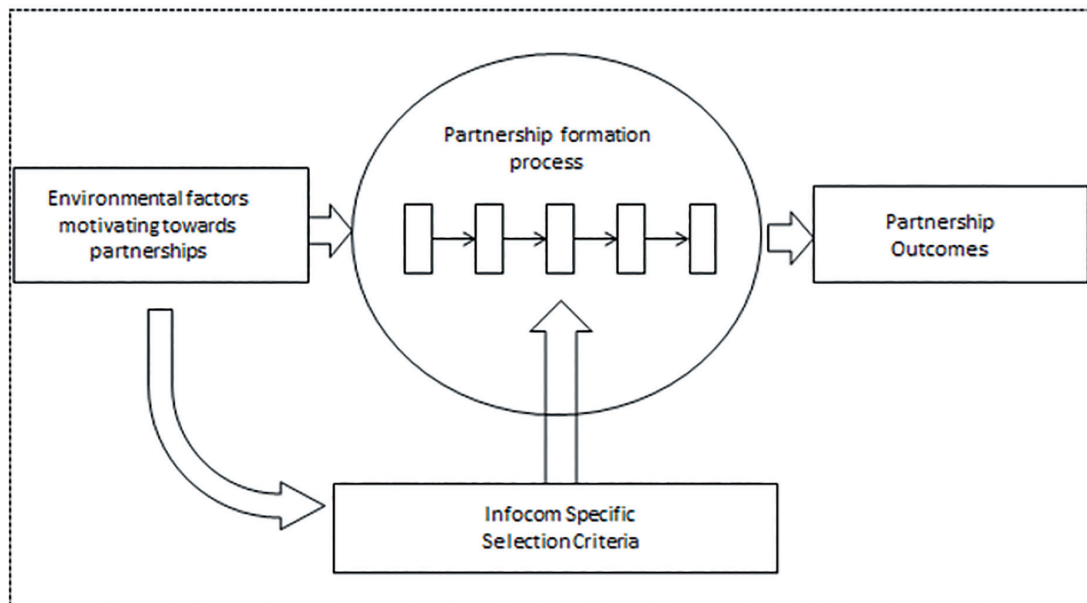
Evidencing the influence of the criteria for partner selection, Varis and Salminen (2000) conducted a study in order to build a preliminary framework for the selection of partners in the information and communication technology sector. The framework was built from previous studies and from conducting interviews. The results of the study are set forth in Figure 1.

In figure 1 the influence of partner selection criteria for forming a partnership is evident, which is directly related to the results obtained with their activities. In this case, the authors found that environmental factors such as convergence, motivate partnerships. The partnership training process includes various stages, of which the selection is one of the most important. And finally, the process of formation of partnership interferes with the results obtained with the partnership.

Regarding the relationship between the selection criteria used and the sustainability of a relationship, Galbraith (1998), Dekker (2004), Dyer and Chu (2003) and Klein and Pereira (2014) assert that criteria are used to assess the congruence between the prospected and other members of the network and, if they are not observed, there is the possibility of the new partner not staying in the relationship. Complementarily, Bierly III and Gallagher (2007) assert that the identification of criteria for partner selection is a precondition for the success of an inter-organizational relationship.

In knowing, then, of the importance of defining criteria for the selection of partners, in view of the search for the success of a partnership, below we compiled the criteria mentioned in the literature of various types of inter-organizational relationships (Table 1).

With the main criteria for the selection of partners in inter-organizational relationships exposed, we present the method used for data collection and analysis.



Source: Varis and Salminen (2000, p. 5)

Figure 1. Framework for building partnerships and partner selection

4. METHOD

This study aims to identify, based on theoretical evidence and primary data collection, the most important criteria for selecting partners in horizontal inter-organizational networks, and the influence on the network's activities.

First of all, we searched the criteria for partner selection stressed in the literature of different types of inter-organizational relationships, already exposed in the theoretical framework. They were the starting point for the construction of the questionnaire, which consisted of two parts (Table 2): I demographic profile and II Criteria for partner selection. Part II was subdivided in three: strategic, related to the prospected and related to the resources.

For each criterion, the sample indicated the degree of importance, considering a five-point Likert scale: not important (1), of little importance (2), indifferent (3), important (4) and very important (5). The questionnaire was applied to 120 managers of inter-organizational networks, who hold positions as president or are responsible for the process of partners expansion. Of the total, 62 questionnaires were administered in person and 58 were completed online. The analysis of the questionnaires was performed from the calculation of averages and the Cronbach's alpha for the three criteria subgroups.

Moreover, interviews were conducted in person with 16 managers who were randomly termed as E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15 and E16 to maintain the anonymity of responses. The managers interviewed occupy hold positions as president or are responsible for the expansion process of partners; in this position they may be partners or hired to take over the function. From a semi-structured interview, respondents were asked about the criteria they consider as important in partner selection, the relative justification. In addition, respondents were able to make general comments about how managers perceive the relevance of the analysis of the criteria among the prospected. We conducted an interpretative analysis of the interviews, which according to Ricoueur (2000), assumes the inclusion of the researcher in the interpretation of data.

The results obtained with the specified method are exposed below.

Table 1. Criteria for partner selection

Criterion	Central idea	Authors
Strategic compatibility	The partner's strategies are compatible with the Network's; it presents the same policies and tactics, ensuring alignment of objectives	Williams and Lilley (1993); Dacin, Hitt and Levitas (1997); Hagedoorn and Duysters (2002); Das and Teng (2002); Wahyuni (2003); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)
Strategic importance of the network for the partner	How important is the Network for the partner	Spekman, Isabella and Macavoy (2000); Wahyuni (2003); Hagedoorn and Duysters (2002); Das and Teng (2002); Dacin, Hitt and Levitas (2007); Dekker (2004); Poppo and Zenger (2002); Duister, Duysters and De Man (2011)
Added value for the customer	Joint activities add value to customers	Das and Teng (1998); Walters, Peters and Dess(1994); Doz (1996); De Man, Duysters and Vasudevan (2001); Wahyuni (2003); Duisters, Duysters and De Man (2011)
Complementarity	The partners are mutually dependent to achieve their goals	Williams and Lilley (1993); Kanter (1994); Dacin, Hitt and Levitas (1997); Spekman, Isabella and Macavoy (2000); Hagedoorn and Duysters (2002); Das and Teng (2002); Doumaet al. (2000); Poppo and Zenger (2002); Wahyuni (2003); Varis, Kuivalainen and Saarenketo (2005); Vlaar et al. (2006); Duisters, Duysters and De Man (2011)
Partner's insight for innovation	Willingness to innovate, take risks, being creative	Das and Teng (1998); Varis and Conn (2002); Holtbrugge (2004); Dacin, Hitt and Levitas (2007); Duisters, Duysters and De Man (2011)
Willingness to share resources	Resources include employees, knowledge, products, production capacity	Geringer (1991); Dacin, Hitt and Levitas (1997); Chung, Singh and Lee (2000); Duisters, Duysters and De Man (2011)
Location	Favorable location for negotiations between partners and between company and customers	Geringer (1991); Marxt and Link (2002)
Previous experience with cooperation	Knowledge related to networks, level of experience with network management	Devlin and Bleakly (1988); Dacin, Hitt and Levitas (1997); Chung, Singh and Lee (2000); Marxt and Link (2002); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)
Personal relationships	Coexistence with the partner	Dacin, Hitt and Levitas (1997); Duysters et al. (1999); Dacin, Oliver and Roy (2007); Duisters, Duysters and De Man (2011)
Commitment	Committed to the success of the partnership	Geringer (1991); Williams and Lilley (1993); Brouthers, Brouthers and Wilkinson (1995); Spekman, Isabella and Macavoy (2000); Douman (2000); De Man, Duysters and Vasudevan (2001); Marxt and Link (2002); Poppo and Zenger (2002); Nielsen (2003); Varis, Kuivalainen and Saarenketo (2005); Duisters, Duysters and De Man (2011)
Compatibility of objectives	Objectives that can be pursued simultaneously and are complementary	Bronder and Pritzl (1992); Brouthers, Brouthers and Wilkinson (1995)
Motivation to cooperate	Willingness to cooperate	Geringer (1991); Brouthers, Brouthers and Wilkinson (1995); Spekman, Isabella and Macavoy (2000); Douman (2000); De Man, Duysters and Vasudevan (2001); Nielsen (2003); Duisters, Duysters and De Man (2011)

Organizational culture	Norms and values of the partner organization, open or closed, etc.	Dacin, Hitt and Levitas (1997); Spekman, Isabella and Macavoy (2000); Douma et al. (2000); Poppo and Zenger (2002); Das and Teng (2002); Wahyuni (2003); Vlaaret al. (2006); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)
Partner reputation	The partner's image	Duysters et al. (1999); Dacin, Oliver and Roy (2007); Duisters, Duysters and De Man (2011)
Advantage for reducing cost	Division of transaction costs, improvements, purchases	Geringer (1991); Stafford (1994); Perks (2000)
Size of organization	Number of employees, turnover of employees, sales volume per year. Corporations work best when there is little difference in size between the companies	Kogut (1988); Williams and Lilley (1993); Brouthers, Brouthers and Wilkinson (1995); Tracey, Vanderembse and Lim (1999); Duisters, Duysters and De Man (2011)
Bargain condition	The partner's position compared to other market competitors	Walters, Peters and Dess (1994); Doz (1996); Das and Teng (1998); Park and Ungson (2001); De Man, Duysters and Vasudevan (2001); Wahyuni (2003); Duisters, Duysters and De Man (2011)
Cooperative culture	All organizations involved have to cooperate in the activities and in terms of learning, sharing their knowledge	Bronder and Pritzl (1992); Stafford (1994); Brouthers, Brouthers and Wilkinson (1995); Perks (2000)
Financial resources	Return on investment, financial health	Contractor and Lorange (1988); Geringer (1991); Williams and Lilley (1993); Stafford (1994); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)
Technological resources	Matching technology, technological complementarities	Das and Teng (1998); Spekman, Isabella and Macavoy (2000); Nielsen (2003); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)

Fonte: elaborado pela autora.

5. PRESENTATION AND DISCUSSION OF RESULTS

In this chapter, we discuss first the profile of inter-organizational networks that make up the sample of the study and after, we present and describe the results relating to the criteria for the selection of partners.

5.1. SAMPLE PROFILE

In order to better understand the context of the study, we present a characterization of inter-organizational networks sample components, which is formed by inter-organizational networks that have, on average, 10 years of experience – the oldest has 38 years' experience and the youngest 1 year experience. With regard to the time of operation of enterprises, the year 2000 is characterized by the formation of 8 sample networks, a number that surpasses all previous years. This increase in the number of networks in 2000 may be related to the Cooperation Networks Program*, not only due to some of them having been formed by the Program, but also due to the influence it had on the formation of inter-organizational networks separate from the Program. It is worth noting also the years of 2004 and 2013, when the formation of twelve inter-organizational networks took place, with that being the highest annual value.

* O Programa Redes de Cooperação foi uma iniciativa lançada em 2000 pela Secretaria do Desenvolvimento e dos Assuntos Internacionais (SEDAI) do Rio Grande do Sul. Atualmente, o Programa é desenvolvido pela Secretaria da Economia Solidária e Apoio à Micro e Pequena Empresa (SESAMPE), sendo que o objetivo é “fomentar a cooperação entre empresas, gerar um ambiente estimulador ao empreendedor e fornecer suporte técnico necessário à formação, consolidação e desenvolvimento das Redes”.

Table 2. Questions comprising the questionnaire

Construct	Definition	Variables	Explanation	Main authors
I Demographic profile	Characteristics that define and distinguish each researched inter-organizational network.	1	Sector of activity	Geringer (1991); Walters, Peters and Dess (1994); Doz (1996); Dacin, Hitt and Levitas (1997); Das and Teng (1998); Doumaet al. (2000); Spekman, Isabella and Macavoy (2000); Chung, Singh and Lee (2000); De Man, Duysters and Vasudevan (2001); Hagedoorn and Duysters (2002); Das and Teng (2002); Varis and Conn (2002); Poppo and Zenger (2002); Hagedoorn and Duysters (2002); Wahyuni (2003); Holtbrugge (2004); Vlaar, Van Den Bosch and Volberda (2006); Duisters, Duysters and De Man. (2011)
		2	Number of partners	
		3	Year of training completion	
II Criteria for selection of partners	Identification of strategic criteria used by inter-organizational networks in partner selection.	13	6 strategic criteria that may or may not be being used in inter-organizational networks of the sample	Kogut (1988); Devlin and Bleakly (1988); Contractor and Lorange (1988); Geringer (1991); Bronder and Pritzl (1992); Stafford (1994); Walters, Peters and Dess (1994); Brouthers, Brouthers and Wilkinson (1995); Doz (1996); Dacin, Hitt and Levitas (1997); Duysters et al. (1999); Das and Teng (1998); Tracey, Vanderembse and Lim (1999); Spekman, Isabella and Macavoy (2000); Douman (2000); Chung, Singh and Lee (2000); Perks (2000); De Man, Duysters and Vasudevan. (2001); Park and Ungson (2001); Spekman, Isabella and Macavoy (2000); Das and Teng (2002); Poppo and Zenger (2002); Nielsen (2003); Wahyuni (2003); Vlaar, Van Den Bosch and Volberda (2006); Dacin, Oliver and Roy (2007); Duisters, Duysters and De Man. (2011)
		14	12 criteria related to partners that may or may not be considered as important by inter-organizational networks of the sample	
		15	2 criteria related to tasks that may or may not be considered important in inter-organizational networks of the sample	
	Identification of criteria related to the resources that are important for the selection of partners in inter-organizational networks.			Contractor and Lorange (1988); Geringer (1991); Stafford (1994); Das and Teng (1998); Spekman, Isabella and Macavoy (2000); Nielsen (2003); Duisters, Duysters and De Man. (2011)

Source: prepared by the authors.

The sample is composed by different sectors, of which the trade sector is the one that presents greater representativeness, with 42.06%. Following, what stands out is the service sector, whose activity is performed by 32.54% of the sample. Then, 18.25% of the sample operate in industrial activities, and 7.14% in agro-industrial economic activities.

In relation to the size of inter-organizational networks, the sample is very heterogeneous. The network with fewer partners has currently 4, and the one with the largest number of partners has 410, leaving an average of 43.67 partners.

Given the profile of the sample, below we present the main results for the criteria for partner selection.

5.2 CRITERIA FOR THE SELECTION OF NEW PARTNERS

Respondents rated the importance of 20 criteria for the selection of partners, drawn from diversified literature. For these criteria, managers defined, on a scale from 0 to 5, the relative importance, and the average of the responses is exposed in Figure 2, showing the average of each criterion, clustering them according to the criteria of subgroups.

In this topic, we highlight first the criteria considered as most important, according to the managers: commitment was the criterion with the highest mean (4.73), which demonstrates a concern of managers of inter-organizational networks with respect to the commitment of the partners in the pursuit of common goals. This overview is positive, and the authors Doumaet al. (2000) and Varis and Conn (2002) consider the commitment between the partners as important success factors in inter-organizational relationships. Complementarily, the second featured criterion is the *motivation to cooperate* (4.62), which highlights the concern of managers of having partners in the network who are willing to cooperate, of living the assumptions of an inter-organizational network. This motivation implies a partner willing to contribute in joint tasks and in what regards more strategic issues.

Although no criterion received for its mean a value lower than “3”, we highlight that the three lowest means came from criteria related to the prospected. The mean 3.05 which is for *size of the company* enables us to understand that the sample considers indifferently the fact that the partners companies have a similar profile in terms of, for example, the number of employees. This indifference pointed to the criterion *size of the company* confronts the claim that cooperation work best when there is little difference in size between the companies (KOGUT, 1988; BROUTHERS, BROUTHERS and WILKINSON, 1995; and DUISTERS, DUYSTERS and DE MAN, 2011). The 3.15 mean for *previous experience with cooperation* stresses that managers are indifferent to the fact that prospected companies having previously participated in other collaborations. For the authors Devlin and Bleakly (1988); Dacin, Hitt and Levitas (1997); Chen, Lee and Wu (2008); Duisters, Duysters and De

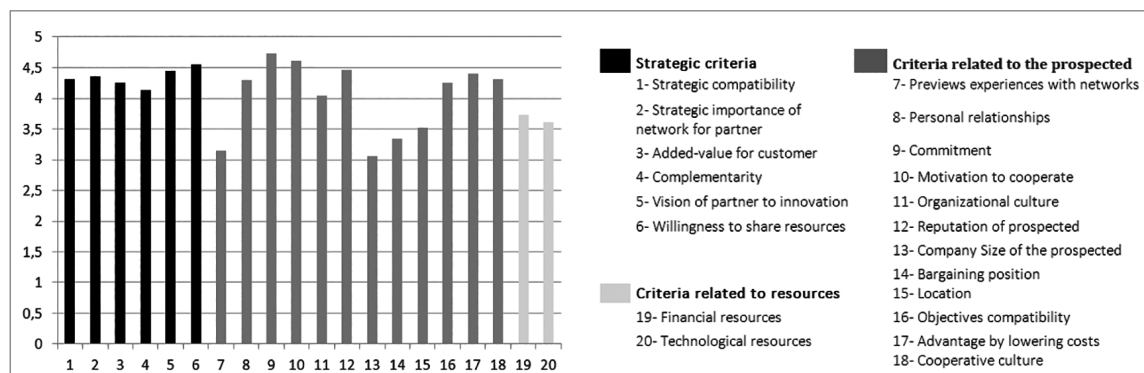


Figure 2: Average for the importance given to different criteria for the selection of partners

Source: research data

Table 3. Average importance and Cronbach's alpha for the three groups of criteria

Criteria	Average importance	Cronbach's alpha
Strategic criteria	3.675	0.71
Criteria related to the prospected	4.340	0.836
Criteria related to resources	4.017	0.783

Source: research data

Man (2011), having previous experience with cooperation also assumes that the prospected has knowledge related to networks and a level of experience with network management with regard to the negative aspect of this criterion, the managers E2, E7, E8, E11 and E13 cited the fact that the companies that have already participated in networks, at first, left because they did have a good experience and that in this case, they enter the network with preconceptions and suspicions, as well as different notions of the cooperation process. The E2 respondent stated that "we prefer that our partners have never had previous experience in networks. Only this way, will they come without the bad habits form other networks". Respondent E11, stated that "it is better when the partner comes into the network for the first time, because only then they will see our way of working and will not compare with previous experiences that may not have been good for them."

In addition to these, the two criteria related to resources had a mean lower than 4: the importance given to the analysis of *financial resources* had a mean of 3.73, and the importance of *technological resources*, 3.62. As a justification for these values, during the interviews the managers said that, depending on the sector, not many technological resources are indispensable and that the companies must have sufficient financial conditions to cope with their commitments, with a more detailed analysis of the financial resources available not being important. In another context, however, Duisters, Duysters and De Man (2011) found that the financial resources are important predictors for the performance of companies in the partnership. One explanation for this difference may lie in the manner of how the sharing of resources in each type of inter-organizational relationship occurs.

Also, in order to complement the emphasized aspects of each criterion, Figure 2 shows the information that the *criteria related to the prospected* are the most important ones to be evaluated when selecting new partners for business networks, with a mean of 4.34. In other words, more important than knowing the strategy and the resources of the prospected, is knowing what items concerning the manager's profile and the more operational issues related to the prospected company.

The criteria being analyzed in the prospected, as stated, were merged into three groups (strategic, related to the prospected and related to resources). For each group we calculated the mean of the importance given by managers, as well as the reliability of groups (Table 3).

It is worth noting that, according to Pasquali (2001), the internal consistency (Cronbach's alpha) consists in calculating the correlation that exists between each item of the test and the remaining items or the total (total score) of items to indicate a set (construct). In this sense, we present the following internal consistency of each set of criteria for the selection of new partners. As an acceptable reliability standard we adopted Cronbach's alpha values greater than or equal to 0.7, as suggested by Hair *et al.*, (2005).

Given the information in Table 3, concluded that the three sets of criteria (strategic, related to the prospected and related to resources) presented acceptable reliability, i.e., there is a correlation between the questions of each set, given the responses from respondent.

Respondents were also able to point out criteria that believe important for the analysis of the prospected, which had not been treated in the questionnaire. We highlight the criteria of *trustworthiness*, that was remembered by 8 respondents (E1, E2, E3, E6, E10, E12, E15 and E18). In relation to this criterion, the managers particularly stressed the importance of

Table 4. Relation of criteria for the selection of partners

Criteria category	Criteria	Definition	Authors	Sample comments
Strategic criteria	Strategic compatibility	The partner's strategies are compatible with the Network's strategies; it features the same policies and tactics, which ensures the alignment of objectives.	Williams and Lilley (1993); Dacin, Hitt and Levitas (1997); Hagedoorn and Duysters (2002); Das and Teng (2002); Wahyuni (2003); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)	Clarity of the company and the network about their plans
	Strategic importance of the network for the partner	How important the network is for the partner	Spekman, Isabella and Macavoy (2000); Wahyuni (2003); Hagedoorn and Duysters (2002); Das and Teng (2002); Dacin, Hitt and Levitas (2007); Dekker (2004); Poppo and Zenger (2002); Duister, Duysters and De Man (2011)	The partner will only continue as a partner if there is the perception that the network adds value to their business.
	Added value for the customer	Undertaking in joint activities add value to customers	Das and Teng (1998); Walters, Peters and Dess (1994); Doz (1996); De Man, Duysters and Vasudevan (2001); Wahyuni (2003); Duisters, Duysters and De Man (2011)	It is positive that the new partner adds value to the customer, when making use of the brand's network.
	Complementarity	The partners are mutually dependent to achieve their goals	Williams and Lilley (1993); Dacin, Hitt and Levitas (1997); Spekman, Isabella and Macavoy (2000); Hagedoorn and Duysters (2002); Das and Teng (2002); Doumaet al. (2000); Poppo and Zenger (2002); Wahyuni (2003); Varis, Kuivalainen and Saarenketo (2005); Vlaar et al. (2006); Duisters, Duysters and De Man (2011)	Partners must have characteristics/resources that by being added enables the achievement of common goals.
	Vision of the partner for innovation	Willingness to innovate, take risks, be creative	Das and Teng (1998); Varis and Conn (2002); Holtbrugge (2004); Dacin, Hitt and Levitas (2007); Duisters, Duysters and De Man (2011)	Predisposition to change procedures and practices in order to achieve better results.
	Willingness to share resources	Resources include employees, knowledge, products, production capacity	Geringer (1991); Dacin, Hitt and Levitas (1997); Chung, Singh and Lee (2000); Duisters, Duysters and De Man (2011)	Resource sharing is essential to the growth of all the members of the network.
Criteria related to the prospected	Previous experiences with cooperation	Knowledge related to networks, level of experience with network management	Devlin and Bleakly (1988); Dacin, Hitt and Levitas (1997); Chung, Singh and Lee (2000); Marxt and Link (2002); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)	The knowledge brought from other corporations contribute to the growth of the network, but the rules and procedures differ and the new member must adapt to the new perspective.
	Personal relationships	Easy to live and relate to the partner	Dacin, Hitt and Levitas (1997); Duysters et al. (1999); Dacin, Oliver and Roy (2007); Duisters, Duysters and De Man (2011)	Relationship favorable to conviviality in the network environment.
	Commitment	Committed to the success of the partnership	Geringer (1991); Williams and Lilley (1993); Brouthers, Brouthers and Wilkinson (1995); Spekman, Isabella and Macavoy (2000); Douman (2000); De Man, Duysters and Vasudevan (2001); Marxt and Link (2002); Poppo and Zenger (2002); Nielsen (2003); Varis, Kuivalainen and Saarenketo (2005); Duisters, Duysters and De Man (2011)	Provision of time and dedication to the activities of the network.
	Motivation to cooperate	Willingness to cooperate	Geringer (1991); Brouthers, Brouthers and Wilkinson (1995); Spekman et al. (2000); Douman (2000); De Man, Duysters and Vasudevan (2001); Nielsen (2003); Duisters, Duysters and De Man (2011)	It is imperative the cooperation among partners to ensure joint gains.

Criteria related to the prospected	Organizational culture	Norms and values of the organization, open or closed, etc.	Dacin, Hitt and Levitas (1997); Spekman, Isabella and Macavoy (2000); Douma et al. (2000); Poppo and Zenger (2002); Das and Teng (2002); Wahyuni (2003); Vlaaret al. (2006); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)	It does not interfere much in the progress of the network. It should only be the least in order to avoid conflicts that weaken the relationship and networking gains.
	Reputation of the prospected	The image of the prospected	Duysters et al. (1999); Dacin, Oliver and Roy (2007); Duisters, Duysters and De Man (2011)	Level of credibility in the community and suppliers.
	Company size of the prospected	Number of employees, size of the physical structure	Kogut (1988); Williams and Lilley (1993); Brouthers, Brouthers and Wilkinson (1995); Tracey, Vanderembse and Lim (1999); Duisters, Duysters and De Man (2011)	Minimum size to be able to develop their activities, according to the industry.
	Bargaining conditions	The partner's position compared to other market competitors	Walters, Peters and Dess (1994); Doz (1996); Das and Teng (1998); Park e Ungson (2001); De Man, Duysters and Vasudevan (2001); Wahyuni (2003); Duisters, Duysters and De Man (2011)	The better the bargaining condition is, the more favorable it is to the network.
	Location	Favorable location for negotiations between partners and between company and customers	Geringer (1991); Marx and Link (2002)	Ensuring that the location is not an impediment to the company's participation in the activities and meetings of the network, and that it can undertake the logistics operations, if necessary.
	Compatibility of objectives	The company has goals that can be searched simultaneously with those of the other members of the network, and that they are complementary	Bronder and Pritzl (1992); Brouthers, Brouthers and Wilkinson (1995)	The objectives sought in the network must meet the objectives of the prospected.
	Advantage by reducing cost	Economies of scale through joint purchasing; reduction of costs of each partner with the accession of more partners and consequent division of transaction costs, improvements, purchases with differential prices	Geringer (1991); Stafford (1994); Perks (2000)	Analysis of how the prospected can contribute to the reduction of shared costs or better negotiations on joint purchasing
	Cooperative culture	The new members are predisposed to share knowledge	Bronder and Pritzl (1992); Stafford (1994); Brouthers, Brouthers and Wilkinson (1995); Perks (2000)	Cooperation reflected in the trust to be established between the partners.
	Trustworthiness	The new members (company and entrepreneur) must have a suitable behavior and comply with their legal obligations.	Criteria that emerged from the data collection.	Appropriate behavior to the community and suppliers.
	Analysis of clearance certificates (INSS, Federal Revenue, ICMS, among others)	Características pessoais do gestor da empresa; perspectivas para a empresa.	Critério que emergiu da coleta de dados.	Experiência em gestão, visão de futuro.
Criteria related to resources	Entrepreneur's profile	Personal characteristics of the company manager; prospects for the company.	Criteria that emerged from the data collection.	Management experience, vision of the future.
	Company lifetime	The company's operating time in the field of activity	Criteria that emerged from the data collection.	The longer the time is, the better the evaluation.
	Technological resources	Availability of technological resources, technological complementarities	Das and Teng (1998); Spekman, Isabella and Macavoy (2000); Nielsen (2003); Chen, Lee and Wu (2008); Duisters, Duysters and De Man (2011)	Sufficient technological resources so that it can work in the field of activity

Fonte: dados da pesquisa

analyzing whether the prospected has no legal restrictions (INSS, Federal Revenue, ICMS, among others). Also, knowing if the company has a trustworthy behavior over time before the community and suppliers.

The criteria *manager's profile* was also cited as being important by five respondents (E3, E9, E13, E14 and E17). In this criterion, the managers consider the evaluation of experience in management of the company's owner. The analysis of these criteria contribute, according to the respondents, to anticipate the kind of participation that the new partner will have on the network with respect to the assiduousness, the involvement in the management and even the sustainability of the partnership. E9 states that "the network is formed from relationships and because of that it is of an interest to us, in knowing the manager's profile of the company. If we analyze how they handle the management of the company, then we can see how they will behave with the network."

In addition to these criteria, managers E1 and E14 also stress the importance of knowing how long the company has been in the line of business. According to E14, "the operating length of time demonstrates the company's ability to overcome difficulties and, the longer the time of operation, the more renowned the company is, which also strengthens the network image."

By considering then the data collection performed from the questionnaires and interviews, next, we present Table 4 with the criteria that the sample of inter-organizational networks considered important for the selection of partners, with the relative specifications.

6. FINAL CONSIDERATIONS

This study's main objective was to identify the most important criteria for the selection of partners in horizontal inter-organizational networks, also proposing to describe their influence on network activities.

The first part of the data collection was performed through a questionnaire, covering a sample of 120 inter-organizational networks. The sample is composed of networks that have, on average operated for 10 years and have 43.67 partners. Twenty were the criteria surveyed a priori, divided as follows: 6 strategic criteria, 12 criteria related to the prospected and 2 criteria related to the tasks. From these, the *criteria related to the prospected* were considered as the most important to be evaluated when selecting new members, with a mean of 4.34.

Of the twenty surveyed criteria, it was clear that the *commitment* had the highest mean (4.73) and it is related to the commitment associated with the success of the partnership. It should be noted that all the criteria surveyed in the questionnaire were considered by the sample with a mean higher than 3.0, which leads to the realization that, even though it was taken from the literature related to different types of inter-organizational relationships, all apply to the reality of the horizontal inter-organizational networks.

Based on this identification, interviews were conducted with managers of 16 inter-organizational networks, from where other three criteria emerged considered as important for the selection of partners: trustworthiness, entrepreneur's profile and company lifetime.

Also, the sample of respondents points out three aspects to be considered. 1: the criteria cannot be so restrictive to the point that no company is able to meet with them, leading the network to have such a number of partners that its continuity is not made possible (E2); 2: the criteria cannot be too extensive, facilitating the entry of various company profiles, creating groups with different interests in the same network, decreasing the chances of them staying, when they do not perceive in the network a way to achieve the intended goals. This precaution was appointed by E14, being directly related to the attempt of trying to reduce the turnover of partners; 3: the criteria should be reviewed periodically in order to adapt to changes and demands of the market and the actual inter-organizational network.

Considering the breadth and depth of the results from the application of quantitative and qualitative method, we can observe that the criteria identified and described could contribute to a better selection process of partners. In theoretical terms, the research contributes by bringing up a reality of networks with peculiarities that deserve specific studies.

However, the study presents some limitations. Researchers jointly study the horizontal inter-organizational networks of the sample, regardless of sector specificities, number of associates or any other criteria for characterization. Given that, the statements and proposals should be made relative to the individual context of each inter-organizational network.

With the evidence found, we suggest for future studies to investigate the relationship of each partners selection criterion with the success of the partnership.

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