

Factors Influencing the Insertion and the Support in Collaborative Networks of Organizations

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ABSTRACT:

Some organizations reach its objectives by establishing strategic partnerships, forming collaborative networks. Thus, this research presents in this work a study on two separate networks: network A and network B, located both in the Southern Brazil, in comparison with the results obtained by Becker et al (2009). The objective was to identify from participating companies, the influencing factors of maintenance and of insertion in collaborative networks. This is a study of multiple cases. As the surveyed elements were measured only once, it is understood that the research has cross-sectional study of feature, and identifies the qualitative and quantitative way. As result it was found that in both networks, as well as the results of Becker et al (2009), the question "corporate culture" is obstacle to the development of networks, more considerably. The similarities of the results obtained demonstrates the maturity of the network participants at different locations.

Keywords: Competitiveness, Small and Medium Companies, New Knowledges.

Fatores que Influenciam a Inserção e o Apoio em Redes Colaborativas de Organizações

RESUMO:

Algumas organizações atingem seus propósitos estabelecendo parcerias estratégicas, formando redes colaborativas. Assim sendo, apresenta-se neste trabalho um estudo em duas redes distintas, sendo estas: Rede A e Rede B, ambas sediadas no Sul do Brasil em comparação com os resultados obtidos por Becker et al., (2009). O objetivo foi identificar junto às empresas participantes os fatores influenciadores de inserção e manutenção nas redes colaborativas. Trata-se de um estudo de casos múltiplos. Como os elementos pesquisados foram medidos uma única vez, entende-se que a pesquisa tem característica de estudo transversal, e identifica-se de forma qualitativa e quantitativa. Como resultado, verificou-se que em ambas as redes, bem como os resultados de Becker et al (2009), a questão "cultura corporativa" é obstáculo para o desenvolvimento de redes, mais consideravelmente. As semelhanças entre os resultados obtidos demonstra a maturidade dos participantes da rede em locais.

Palavras-chaves: Competitividade, Pequenas e Médias Empresas, Novos Conhecimentos.

1. Introduction

In under conditions of competitive markets, some organizations expect to achieve their purposes through strategies developed in groups. One of the alternatives of increasing competitiveness is their participation in collaborative networks. Given this scenario, cooperative relations are increased in order to reduce the difficulties in regard of transaction costs of organizations. Then one realizes the need of companies to act together and in associated form, aiming to gain knowledge, expertise and market.

Given this reality, the model of associations gets important dimensions, which then arises the core of trading core, which aims as an objective, joint purchasing, joint development and standardization of promotions, standardization of processes, training, prices and consumers research, among others (Lopes et al., 2004).

We present in this paper a study on two different networks, these being: network A and network B, both situated in the Southern Brazil (also called Serra Gaúcha”) reagon, with participants of many cities. The aim of this study is to investigate the influencing factors to be inserted in the networks, and analyze this behavior, in comparison with the networks surveyed by Becker et al (2009) in the Southern Brazil (regions of Vale do Taquari, Rio Pardo and Center of Rio Grande do Sul).

Therefore, it is assumed that occur interests and different expectations among the study networks, since the network A obtained government support for installation and network B initiated by the entrepreneurs efforts.

Inicially it was developed an approach about collaborative networks, and their typifications and evolutions. After that is presented the working method of this study, and later we describe the studied companies. By the end, the analysis of the results and final considerations are presented.

2. Collaborative Networks

The Castells (1999) definition of network treats it as a set of nodes interconnected by arcs, which allows inherent flows of the network nature. This refers to the concept of network as a multidisciplinary science.

According to Balestrin & Verschoore (2008), vertical networks have by characteristic the hierarchy, while horizontal networks have by characteristic the cooperation and flexibility. Formal networks establish conduct rules among the actors that compose this network, through contractual documents, and informal networks include any type of formal contract and act according to common interests based on confidence.

The "network" concept is inserted in several fields such as: social sciences, communication, physics, computer science, virtual organization, virtual corporation, among others. Amongst the many types of networks, collaborative networks are particularly evident, especially in the management organizations area. Collaborative networks are composed of a range of entities (eg. organizations and people) that are autonomous in terms of operating environment, culture, social capital and goals. Nevertheless, these entities collaborate to achieve better objectives and goals, and whose interactions are supported by the computers network (Camarinha-Matos & Afsarmanesh 2005).

The Collaborative Networks have inter-organisational foundation as an example for the elimination of barriers created by the environment and/or other organisations, leading to an extensive network of collaboration among enterprises MACKÉ et al (2012).

2.1 Collaborative Networks in the State of Rio Grande do Sul (southern Brazil)

The Networks Cooperation Program (NCP) began in 2000, by the government of the State of Rio Grande do Sul, through public policy development, promoted by the Department of Development and International Affairs (Sedai).

The NCP has emerged with the goal of enhancing the competitiveness of micro and small companies, to stimulate entrepreneurship, socio-economic development and provide technical support for the formation, consolidation and evolution of networks (Verschoore, 2004).

Following the understanding line from Verschoore (2004), the State Government signed an agreement with some universities, which were delegated analysis activities of local

specificities, coordination and implementation of the methodological tool next to company networks.

2.2 Characterization of Collaborative Networks from the State of Rio Grande do Sul (Southern Brazil)

As a basis for the development of Becker's et al study (2009), it was taken as a reference the networks from the State of Rio Grande do Sul, in the regions of Vale do Taquari, Rio Pardo, and of the center of the state.

The participants from the regions of Vale do Taquari, Rio Pardo, and of the center of the state of Rio Grande do Sul networks were object of a study, where the Federal University of Santa Maria (UFSM) and University of Santa Cruz do Sul (UNISC) are partners from NCP.

From the networks formed by the intervention of UNISC, four were selected for the study, which together amounted 47 networks associated companies.

2.3 Networks in the Central Region of the State of Rio Grande do Sul (Southern Brazil)

In the region served by UFSM amounted, four networks were research objects, which amounted 94 companies associated to the networks. In Serra Gaucha region of the State of Rio Grande do Sul, two networks, "A" and "B" were selected, and the criteria for selecting these networks were: one should have in its constitution the encouragement and support of Network Cooperation Programme (NCP) of the Department of development and International Affairs (SEDAI), have more than twenty participant companies and to be service providers. The other network to be chosen, should have its constitution by its owners initiative, without the intervention of bodies or institutions.

Network A: The participants companies of this network are located in the cities of Caxias do Sul, Bom Princípio, Feliz, Garibaldi, São Marcos and Farroupilha, summing 32 companies that comprise the network. It's important to say that this network collaboration comes from a concept proposed and encouraged by the State Government of Rio Grande do Sul, through the Networks Cooperation Programme (NCP) with the participation of the Department of Development and International Affairs (SEDAI), and the University of Caxias do Sul (UCS), as manager of the creation and structuring initial processes.

Network B: Formed by a group of entrepreneurs, with 21 stores in 05 cities from the region of Serra Gaucha in the State of Rio Grande do Sul (Caxias do Sul, Bento Gonçalves, Farroupilha, Canela and Flores da Cunha) with the characteristics of union strength and creativity in uniting by own incentive.

3. Research Methodology

The study was conducted in two trade and service sectors collaborative networks, based in the city of Caxias do Sul. For the selection of the networks, we took as a premise the condition of one of them had been formed only by the entrepreneurs efforts, without incentives or government body contributions or support. The second network had as a precondition the number of participants and the performing region of its participants and the performing segment.

By request of the directors of each of the networks, it was kept full and absolute secrecy about the networks identities and their participants.

The technical procedure utilized in the research was the multiple case study, because it is the logic of replication (Cooper & Schindler, 2003). As the elements investigated were measured only once, it is understood that the research has a cross-sectional study characteristic, with qualitative and quantitative manners (Yin, 2005).

Data collection occurred through three stages: the application of questionnaire directly to the business manager in person; the sent of questionnaire electronically and by the presidency of the network distribution to its participants through pouches restricted to network use. For the survey instrument, we took as a reference the applied questionnaire model, the instrument utilized in the study of Becker et al (2009).

Quantitative variables were described by average and standard deviation and the categorical ones by absolute and relative frequencies.

To variables comparison between networks, the t-students tests for independent samples (quantitative variables) or Pearson chi-square test (categorical variables) were applied.

In comparison of the main reasons for entry and respective achievement degrees, the t-student test for paired samples was used. The level of adopted significance was 5% ($p < 0.05$), and the analysis were performed in program SPSS version 21.0 (HAIR Jr., 2005).

4. Data analysis and discussion of the data and results

The questionnaires applied to two cooperation networks in Caxias do Sul totaled 40, from 44 participating entrepreneurs in the respective networks, which makes a total of 90.9%, and were distributed as follows:

The "A" network, with 32 stores and 27 owners, where it was obtained 25 completed questionnaires and considered valid, reaching 92.6% of responses.

For the "B" network, the considered valid responses were of 88.2% since part of the network has 21 stores including 17 owners, and 15 questionnaires were answered.

It was verified that the validated questionnaires in networks "A and" B ", were approximately 90.9%, which indicates a increase in relation to data collection from Becker et al (2009), which has achieved a percentage of 87.9% of sent and validated questionnaires.

The distribution of networks for the time that the company exists, time that the entrepreneur is the owner and time that the company is in the network is shown in Table 2. It was possible to observe that the network "B" presents companies with longer time in the market, greater time that the entrepreneur is the owner and also longer time the company is in the network, in comparison with the findings of Becker et al (2009). It was percentually verified a significance regarding the age of existence of the companies from "B" network, which leads to the understanding of the maturity of the business and also the closing to new participants of the network, given that in the last five years no new company was aggregated to network "B ", unlike network "A ", which is open to new entrants. Another point to be considered is the range of 11 to 20 years of the company, coming against with the emergence of concepts and dissemination of collaborative networks in the State of Rio Grande do Sul, which probably contributed to the reasonable balance among three analysis related to percentage point.

| How long the company exists | Years 1 a 5 | % | Years 6 to 10 | % | Years 11 to 20 | % | More than 21 years | % | N/R | % | Total |
|--|-------------|------|---------------|------|----------------|------|--------------------|------|-----|-----|-------|
| Regions of Vale do Taquari, Rio Pardo, and of the center of the state of Rio Grande do Sul | 19 | 16.2 | 25 | 21.3 | 44 | 39.5 | 20 | 17.4 | 07 | 5.6 | 100 |

| | | | | | | | | | | | |
|-------------|----|------|---|------|---|------|---|------|---|-----|-----|
| Network "A" | 05 | 20.0 | 3 | 12.0 | 9 | 36.0 | 8 | 32.0 | 0 | 0.0 | 100 |
| Network "B" | 0 | 0.0 | 2 | 13.3 | 5 | 33.3 | 8 | 53.3 | 0 | 0.0 | 100 |

Source: from the research conducted by the authors.

Table 1 - Time that the company exists

In Table 2, we noticed that in relation to the time that the entrepreneurs is the owner of the corporation, the difference was again significant for companies that are in the range of 21 years to "B" network, in relation to the findings of Becker et al (2009). This information lead to the understanding that the networks are in the maturity stage in both regions, given that the research and the results of Becker were in 2009.

| How long the company exists Years | Years 1 a 5 | % | Years 6 to10 | % | Years 11 to 20 | % | More than de 21 years | % | N/R | % | Total |
|--|-------------|------|--------------|------|----------------|------|-----------------------|------|-----|------|-------|
| Regions of Vale do Taquari, Rio Pardo, and of the center of the state of Rio Grande do Sul | 18 | 15.3 | 30 | 25.6 | 42 | 35.9 | 10 | 8.7 | 17 | 14.5 | 100 |
| Network "A" | 9 | 36.0 | 5 | 20.0 | 7 | 28.0 | 4 | 16.0 | 0 | 0.0 | 100 |
| Network "B" | 1 | 6.7 | 3 | 20.0 | 5 | 33.3 | 6 | 40.0 | 0 | 0.0 | 100 |

Source: from the research conducted by the authors.

Table 2 - Time that the entrepreneur is the owner of the corporation.

Reasons for Entering of Firms in the Network

A comparison among the three study groups was traced, with responses coming from the questionnaires, where the objective was to identify the reasons for entering of firms in the network. Thus, we selected the ten responses with the highest rate of incidence percentage, as shown in Table 3.

| Networks | Reasons | % |
|--|--|------|
| Regions of Vale do Taquari, Rio Pardo, and of the center of the state of Rio Grande do Sul | To get gains of opportunity associated with the network | 92.3 |
| | For network benefits, such as marketing and purchasing volume | 91.5 |
| | The possibility of lower costs in general (advertising, shopping) | 91.5 |
| | To increase the number of social and business relations | 91.4 |
| | To be a market trend, growth and development of companies | 88.0 |
| | To grow the company through the inter-relationship with entrepreneurs | 87.2 |
| | Because the network provides new knowledge to lower costs | 84.7 |
| | For the network to be an excellent source of learning and discoveries | 83.8 |
| | Because there is confidence and ethics among network participants | 83.7 |
| | Because in the network I can get resources which are shared and pursued by all | 82.0 |
| Network "A" | For profit opportunity associated with the network | 100 |
| | To be a market trend, growth and development of companies. | 100 |
| | Because we have more chances of getting benefits from the large number of firms in the network | 100 |
| | To join a group of companies with more market credibility | 96.0 |
| | Because the network provides new knowledge to lower costs | 96.0 |
| | For the network to be an excellent source of learning and discoveries. | 96.0 |

| | | |
|-------------|--|------|
| Network "B" | For network benefits, such as marketing and purchasing volume. | 95.8 |
| | To exist in the network a good coexistence and mutual help of the members of the group | 95.7 |
| | To increase the number of social relationships and businesses | 92.0 |
| | The possibility of lower costs in general advertising and shopping | 92.0 |
| | Because the network provides new knowledges and lower costs | 93.3 |
| | To be a market trend, growth and development of businesses | 93.3 |
| | To be part of a group of companies that has many customers | 86.7 |
| | To exist in the network a good coexistence and mutual help by the members of the group | 86.7 |
| | To be with companies that grew together with the networks | 86.6 |
| | To add capabilities with companies that were already in the networks and be able to learn new techniques | 80.1 |
| | To reduce uncertainty and increase the stability | 80.0 |
| | To join a group of companies with more market credibility | 80.0 |
| | The possibility of lower costs in general advertising and shopping | 80.0 |
| | For network benefits, such as marketing and purchasing volume | 78.5 |

Source: from the research conducted by the authors.

Table 3 - Main reasons for entering of entrepreneurs in networks.

In Table 4, it was grouped the ten considered most important reasons for entering in the networks by part of the interviewed. These reasons were selected through the percentages presented in Table 1.

| Reasons for entering of entrepreneurs in networks | Vale do Taquari, Rio Pardo, and of the state of Rio Grande do Sul | Network A | Network B |
|--|---|-----------|-----------|
| Because the network provides new knowledge at lower costs | X | X | X |
| For network benefits, such as marketing and purchasing volume | X | X | X |
| The possibility of lower costs in general advertising and shopping | X | X | X |
| To be a market trend, growth and development of companies | X | X | X |

Source: from the research conducted by the authors.

Table 4 - Reasons for entering of entrepreneurs in the networks in degree of importance

In the analysis of the statements in Table 4, four variables were common to all networks: "Because the network provides new knowledge at lower cost"; "For network benefits, such as marketing and purchasing volume"; "For the possibility of lower costs in general advertising and shopping" and "To be a market trend, growth and development of companies".

It was noticed that the questions "Because the network provides new knowledge at lower costs" and "For the possibility of lower costs in general advertising and shopping", are related to the "cost minimization" construct, which demonstrates the intention by part of entrepreneurs in entering the network for economic reasons. The concern in cost reduction is sealed by Keil (2000), which points to the companies need to seek strategic alliances aiming inherent cost savings.

Already the question "For network benefits, such as marketing and purchasing volume" is related to the opportunism construct, that indicates to the situation to get along in the business through the benefits provided by the network.

And finally, the questionnaire statement "As a market trend, growth and development of companies was identified as a construct of institutional character, which according to Selznick

(1972), set that companies wish to be members of a group, making them similar and shaping up to the requirements.

Another important note are the three reasons of entries in the network by members of network "B", all with over 80% of quote: "To be part of a group of companies that has many customers," with 86.7%; "To be together with companies that grew with the networks" with 86.6% and "To combine capacities with companies that were already in the networks and be able to learn new techniques," with 80.1%.

These pieces of information point to the leadership constructs in the first two quotes, and resource dependence in the third variable, where the motivation to be a participant of networks is directed to seek exogenous resources that can compensate their limitations, a result that comes against Pfeffer & Slančík (1978), which states that a company can not generate all the resources individually, making other companies to join them.

Finally, the network "A", presented only a statement that highlighted only from the other networks, among the top ten most important.

The question "Because we have more chances of getting benefits from the large number of companies in the net", was present in 100% of respondents quote, which shows through the construct "group size" the logical theory according to Olson (1999), that describes the action of belonging to a particular group, and creating the possibility of achieving something that can project your company towards society in which it's inserted.

Less Important Reasons for Entering Network

In Table 5 were described the affirmatives with higher rejection rate as the company's entry in the network, in other words, not important reasons for making decision in integrating network that they belong today. Ten responses with the highest percentage incidence rates were selected.

| Networks | Reasons | % |
|---|---|----------|
| Vale do Taquari, Rio Pardo, and of the center of the state of Rio Grande do Sul | By the low number of associated companies. The smaller the group is, the greater the benefits are | 62.4 |
| | Because the network has more chances of development with fewer members | 49.6 |
| | To become more similar to other companies in the network | 35.0 |
| | To achieve social gains, for example, increased participation in society | 28.2 |
| | Because it was a prestigious network with a high degree of interaction among the members and the confidence was present | 27.3 |
| | Because the control mechanisms of the network prevent opportunistic actions of some members | 26.5 |
| | Because it has already existed previous friendships with members of the network | 23.9 |
| | Because it needs to be helped to grow | 23.0 |
| | To be interested in entering the network and have been indicated by a friend that has already been in the network | 21.3 |
| | To be part of a group of companies that has many customers | 21.3 |
| Networks "A" | By the low number of associated companies. The smaller the group is, the greater the benefits are | 85.8 |
| | Because the network has more chances of development with fewer members | 60.8 |
| | To achieve social gains, for example, increased participation in | 43.4 |
| | Because the control mechanisms of the network prevent opportunistic actions of some members | 31.7 |
| | To be interested in entering the network and have been indicated by a friend that has already been in the network | 31.7 |
| | Because it has already existed previous friendships with members of the network | 23.8 |

| | | |
|--------------|---|------|
| Networks "B" | Because the forms of control are rigid, providing lower costs in contracts and agreements | 16.7 |
| | Because it needs to be helped to grow | 16.7 |
| | To add capabilities with companies that have already been in the networks and learn new techniques | 13.0 |
| | To become more similar to other companies in the network | 12.0 |
| | By the low number of associated companies. The smaller the group is, the greater the benefits are | 78.5 |
| | For greater social visibility than the other entrepreneurs who are not in the network | 60.0 |
| | Because the network has more chances of development with fewer members | 46.7 |
| | Because the control mechanisms of the network prevent opportunistic actions of some members | 46.7 |
| | To be interested in entering the network and have been indicated by a friend that has already been in the network | 46.7 |
| | To achieve social gains, for example, increased participation in society | 46.7 |
| | Because in the network all companies seem to develop the same behavior | 42.9 |
| | Because my company had a profile similarity with the network | 42.8 |
| | Because it has already existed previous friendships with members of the network | 40.0 |
| | Because it needs to be helped to grow | 40.0 |

Source: from the research conducted by the authors.

Table 5 - Main reasons that least contributed to the entry in the networks

In Table 6 are grouped the issues of greatest relevance in both networks and also those that have excelled individually.

| Less important reasons for entering the networks | Networks Vale do Taquari, Rio Pardo, and of the center of the state of Rio Grande do Sul | Networks A | Networks B |
|---|---|---------------|---------------|
| The low number of associated companies. The smaller the group is, the greater the benefits are. | X | X | X |
| Because the network has more chances of development with fewer members | X | X | X |
| To become more similar to other companies in the network | X | | |
| To achieve social gains, for example, increased participation in the society. | | X | |
| For greater social visibility than the other entrepreneurs who are not in network | | | X |

Source: from the research conducted by the authors.

Table 6 - least important reasons for entering the network

The rejection appointed unanimously on issues "By the low number of associated companies. The smaller the group is, the greater the benefits are" and

" Because the network is more likely to develop with fewer members" it is understood as the low concern with the group size where it is inserted, in relation with greatest significance individual issues for the networks studied by Becker et al (2009). The variable "to become more similar to other companies in the network" is related to the institutionalization construct because the managers of the participating companies in the network know that their individuality will be preserved, knowing that some of the decision-making are not for the network, but for the business manager.

For the networks as "A" and "B", they showed similarities regarding to the less interesting reasons for entering networks, with similar results from Becker et al (2009), presented in the first two variables in Table 6.

In spite of presenting different results in the fourth and fifth variables of Table 5, ("To achieve social gains, such as increased participation in society" and "To have greater social visibility than other entrepreneurs who are not in the network"), respectively for networks "A" and "B", both direct to the Status construct, which shows little concern related to the social prestige and social access as supports the theory of collective action described by Sandler (1995).

Relationship Among the Reasons for Entering the Network and the Degree of Achievement of Them.

Network A

When comparing the average of network entry and its main reasons, with average respective achievement perceived by entrepreneurs in network A (Table 3), significant differences were found in virtually all issues, except in two ("Because it was a prestigious network with high interaction among members and the confidence was present" and "Because I wanted to join a network and in this group I found the right conditions for reception and confidence"). In general, the expectation of entrepreneurs was greater than the degree of achievement of the items evaluated, as illustrated in Table 7a.

| Reasons for entering network | % Concordance | Entry Average \pm SD | Achievement Average \pm SD | Difference (entering-achievement) | p |
|------------------------------|---------------|------------------------|------------------------------|-----------------------------------|------------------|
| 1 - Question 09 | 100% | 6.42 \pm 0.78 | 5.29 \pm 0.91 | 1.13 | <0.001 |
| 2 - Question 22 | 100% | 6.13 \pm 0.85 | 5.21 \pm 1.41 | 0.92 | 0.015 |
| 3 - Question 34 | 100% | 6.36 \pm 0.64 | 5.64 \pm 1.15 | 0.72 | 0.007 |
| 4 - Question 03 | 96,0% | 6.08 \pm 0.95 | 5.16 \pm 1.57 | 0.92 | 0.003 |
| 5 - Question 05 | 96,0% | 6.00 \pm 0.96 | 5.36 \pm 1.15 | 0.64 | 0.013 |
| 6 - Question 27 | 96,0% | 5.80 \pm 0.91 | 5.08 \pm 1.38 | 0.72 | 0.033 |
| 7 - Question 12 | 95,8% | 6.25 \pm 1.22 | 5.17 \pm 1.17 | 1.08 | 0.001 |
| 8 - Question 36 | 95,7% | 6.39 \pm 0.94 | 5.04 \pm 1.49 | 1.35 | 0.002 |
| 9 - Question 02 | 92,0% | 6.28 \pm 0.98 | 4.88 \pm 1.30 | 1.40 | <0.001 |
| 10 - Question 20 | 92,0% | 6.20 \pm 1.15 | 5.24 \pm 1.45 | 0.96 | 0.023 |

Source: from the research conducted by the authors.

Table 7a - Parallel of the main reasons for entering networks and respective degrees of achievement

For a better understanding, in Table 7b presents the respective responses of the questionnaire, where questions are listed in Table 7a.

| Reasons for entering network | Response the question |
|------------------------------|--|
| 1 - Question 09 | "For profit opportunity associated with the network" |
| 2 - Question 22 | "For being a market trend, growth and development of companies" |
| 3 - Question 34 | "Because we have more chances of getting benefits from the large number of companies in the net" |
| 4 - Question 03 | "To join a group of companies with greater credibility in the market" |
| 5 - Question 05 | "Because the network provides new knowledge at lower cost" |
| 6 - Question 27 | "For being the network an excellent source of learning and discovery" |
| 7 - Question 12 | "For network benefits, such as marketing and purchasing volume" |
| 8 - Question 36 | "To exist in the network a good coexistence and mutual help of the members of the group" |
| 9 - Question 02 | "To increase the number of social and business relationships" |
| 10 - Question 20 | "For the possibility of lower costs in general advertising and shopping" |

Source: from the research conducted by the authors.

Table 7b - Parallel of the main reasons for entering networks

Network B

Comparing the averages of entering the network from the main reasons with respective averages of perceived achieving by entrepreneurs in network B (Table 4), only had significant difference in one issue ("For the possibility of lower costs in general, as advertising and shopping"). However, the average achievement perceived was significantly higher than the entering reason average in the network.

Thus, in the comparison between the A and B networks, it was realized that entrepreneurs network A expected more than what was achieved, and the ones from network B had similar entering averages and levels of achievement when considered the main reasons for each network, as presented in Table 8a

| Reasons for entering network | % Concordance | Entry Average \pm SD | Achievement Average \pm SD | Difference (entrance achievement) | P |
|------------------------------|---------------|------------------------|------------------------------|-----------------------------------|-------|
| 1 – Question 05 | 93.3% | 5.93 \pm 1.22 | 6.07 \pm 0.88 | -0.14 | 0.685 |
| 2 – Question 22 | 93.3% | 5.67 \pm 1.54 | 5.47 \pm 1.06 | 0.20 | 0.700 |
| 3 – Question 24 | 86.7% | 5.47 \pm 1.19 | 5.47 \pm 1.19 | 0.00 | 1.000 |
| 4 – Question36 | 86.7% | 6.07 \pm 1.33 | 6.27 \pm 0.59 | -0.20 | 0.582 |
| 5 – Question 23 | 86.6% | 5.93 \pm 1.22 | 5.80 \pm 1.37 | 0.13 | 0.709 |
| 6 – Question26 | 80.1% | 5.53 \pm 1.25 | 5.20 \pm 1.32 | 0.33 | 0.430 |
| 7 – Question 01 | 80.0% | 5.53 \pm 1.68 | 5.40 \pm 2.06 | 0.13 | 0.737 |
| 8 – Question 03 | 80.0% | 5.60 \pm 1.88 | 5.80 \pm 1.61 | -0.20 | 0.334 |
| 9 – Question 20 | 80.0% | 5.93 \pm 1.58 | 6.27 \pm 0.80 | -0.34 | 0.454 |
| 10 – Question 12 | 78.5% | 6.14 \pm 1.23 | 5.71 \pm 1.44 | 0.43 | 0.139 |

Source: from the research conducted by the authors.

Table 8a - Parallel of the main reasons for entering networks and respective degrees of achievement

The answers to the questions listed in Table 8a, 8b respectively described in the table.

| Reasons for entering network | Response the question |
|------------------------------|--|
| 1 – Question 05 | "Because the network provides new knowledge at lower cost" |
| 2 – Question 22 | "To be a market trend, growth and development of companies" |
| 3 – Question 24 | "To be part of a group of companies that has many customers" |
| 4 – Question36 | "To exist in the network a good coexistence and mutual help of the members of the group" |
| 5 – Question 23 | "To be with companies that grew with the networks" |
| 6 – Question26 | "To combine capacities with companies that have already been in the network and be able to learn new techniques" |
| 7 – Question 01 | "To reduce uncertainty and increase stability" |
| 8 – Question 03 | "To join a group of companies with greater credibility in the market" |
| 9 – Question 20 | "For the possibility of lower costs in general advertising and shopping" |
| 10 – Question 12 | "For network benefits, such as marketing and purchasing volume" |

Source: from the research conducted by the authors.

Table 8b - Parallel of the main reasons for entering networks

Company status in the network today

When the networks are evaluated in relation to the company's situation today, in the network A the situations that represent more the entrepreneurs are "The degree of confidence and relationship among members of the network enables cost reduction" and "There is a lot of confidence and ethics among network participants."

Related to network B, the situations more representative of entrepreneurs are, respectively, "The network provides exchanging information and innovation with other companies" and "We are working with a good number of companies in the net, that's good", as illustrated in Table 9.

| Situation of the company today | Network A | Network B | p |
|---|------------------|------------------|------------------|
| | Average \pm SD | Average \pm SD | |
| 41. My company did not grow after it joined the network | 3.48 \pm 1.69 | 2.13 \pm 1.73 | 0.020 |
| 42. The degree of confidence and relationship among members of the network enables cost reduction | 5.08 \pm 0.91 | 5.67 \pm 0.90 | 0.055 |
| 43. The network provides exchanging information and innovation with other companies | 4.68 \pm 1.18 | 6.40 \pm 0.74 | <0.001 |
| 44. In the network that I participate, companies are linked by strong leadership | 4.32 \pm 1.14 | 5.33 \pm 1.05 | 0.008 |
| 45. Being in the network I can get more projection in society | 4.40 \pm 1.44 | 5.20 \pm 1.37 | 0.092 |
| 46. There is a lot of confidence and ethics among network participants | 5.08 \pm 1.04 | 5.80 \pm 1.01 | 0.039 |
| 47. We are working with a good number of companies in the net, that's good | 4.28 \pm 1.37 | 5.87 \pm 1.13 | 0.001 |
| 48. Today, network companies work in a standardized manner, facilitating conviviality. | 4.32 \pm 1.49 | 5.07 \pm 0.88 | 0.054 |
| 49. In the network we obtain resources that are sought by all members | 4.48 \pm 1.33 | 5.40 \pm 1.30 | 0.039 |

Source: from the research conducted by the authors.

Table 9 - Comparison between networks as the company's position in the network today

When comparing the assertions among the companies, there was a significant difference in 7 of 10 statements. In general, the network B has a higher level of satisfaction (Table 9).

In the results of Becker et al (2009), it is pertinent to mention the question 42 "The degree of confidence and relationship among members of the network enables cost reduction (shopping, contacts and advertising)", which shows a connection among the constructs that addresses institutionalization factors, social capital, group size and status. In another finding is mentioned the question 48 "Today, network companies work in a standardized manner, facilitating conviviality", where this result expresses the easy condition of conviviality that results from capital developed by the group and the group size.

Final Considerations

When comparing the results between networks A and B, in relation to the results of Becker et al (2009), in some points the similarities of the results are highlighted. As for the participants of network A, through visibility of the limitations and knowledge of the network participants in their respective companies, it can be assumed that initially was created a concept of solving the possible weaknesses of the companies in participating in a collaborative network, creating with it a generic strengthening to the group's position in the market in which it operates and the internal processes improvement.

It is possible to describe that the participants of the network B were more consistent with the need and the possibilities of gains in participating in a collaborative network. It can't be said that this possibility is directly related to the fact that the nonintervention from external factors in the creation and management of network, such as government, institutions and other possible agents. Another finding was about the degree of satisfaction from expectations attended by the managers of network B.

In the final analysis it was noticeable in both networks surveyed, in accordance with the results of Becker et al (2009), the question "corporate culture as an obstacle to the development of networks, in a more considerably way. The similarity of the results demonstrate the maturity of network participants in different locations and business areas.

REFERENCES

BALESTRIN, A.; VERSCHOORE, J. *Redes de cooperação empresarial: estratégias de gestão na nova economia*. Porto Alegre: Bookman, 2008.

BECKER, D. V. *Redes de Cooperação do Estado do Rio Grande do Sul: um estudo dos motivos de participação das empresas em redes*. 155f. *Dissertação* (Mestrado em Administração) Universidade Federal de Santa Maria. Santa Maria/RS, 2007.

CAMARINHA-MATOS, L. M.; AFSARMANESH, H. Collaborative Networks: a new scientific discipline. *Journal of Intelligent Manufacturing*, vol. 1, n. 16, p. 439-452, 2005. Available at: <http://link.springer.com/article/10.1007%2Fs10845-005-1656-3> accessed May 31, 2014.

KEIL, T. Strategic alliances - a review of the state of the art. Helsinki University of Technology, Institute of Strategy and Business International. *Working Paper Series*, 2000.

COOPER, D. R.; SCHINDLER, P. S. *Métodos de pesquisa em administração*, 7 ed. Porto Alegre: Bookman, 2003.

LOPES, F. F.; NEVES, M. F.; CÔNSOLI, M. A.; MARCHETTO, R. M. Estratégias de Rede de Empresas. O associativismo no pequeno varejo alimentar. In: VII SEMINÁRIO EM ADMINISTRAÇÃO FEA-USP. *Anais eletrônicos...* São Paulo: FEA-USP, 2004.

MACKE, J.; VALLEJOS, R.V.; FACCIN, K.; GENARI, D. Social capital in collaborative networks competitiveness: the case of the Brazilian Wine Industry Cluster, International. *Journal of Computer Integrated Manufacturing*, 26:1-2, 117-124, 2012.

OLSON, M. *A lógica da ação coletiva: os benefícios públicos e uma teoria dos grupos sociais*. São Paulo: EDUSP, 1999.

PFEFFER, J.; Slančík, G.R. *The external control of organizations*. New York: Harper & Row, 1978.

SANDLER, Toldd. *Collective action: Theory and Applications*. The University of Michigan Press, 1995.

SELZNICK, P. *A liderança na administração: uma interpretação sociológica*. Rio de Janeiro: FGV Editora 1972.

VALLEJOS, R. V.; GOMES, J. O. *Applying the Benchmarking methodology to empower the Virtual Organization*. In 6th international conference on information technology for balanced automation systems and services in manufacturing (BASYS 2004), Vienna. Emerging solutions for future manufacturing systems, Springer, 2004.

VERSCHOORE, J. R. S. *Redes de Cooperação: concepções teóricas e verificações empíricas*. In: VERSCHOORE, Jorge R. S. (Org). *Redes de Cooperação: uma nova organização de pequenas e médias empresas no Rio Grande do Sul*. Porto Alegre: FEE, 2004.

YIN, R. K. *Estudo de caso: planejamento e métodos*. Porto Alegre: Bookman, 2005.