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## From Individual Learning to Interorganizational Learning: Proposition of an Analysis Framework

Da Aprendizagem Individual à Aprendizagem Interorganizacional em Redes Horizontais: Proposição de um Framework de Análise

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### ABSTRACT:

The focus of this study is in the search for trying to understand how the individual, organizational and interorganizational learning processes occur in two horizontal networks of the agribusiness retail chain that belong to the supermarket segment. Therefore, the objectives of this paper are: (i) suggesting a learning process analysis framework among organizations that establish horizontal interorganizational relationships, articulating learning on the individual, organizational and interorganizational levels, and applying it to networks, and; (ii) establishing relationships between the constructs and the categories that constitute the framework. This research is characterized by its qualitative and exploratory nature, and the method adopted is the study of multiple cases. The data were collected through questionnaires, interviews, documental analysis and learning stories. In order for the learning process to advance on an interorganizational level, the research results indicated the importance of: strategic behaviors related to collaboration; learning through the interactive method and; greater valorization of the learning elements of the behavioral-social dimension, mainly the key element of trust in the relationships.

**KEYWORDS:** Individual learning, Organizational learning, Interorganizational learning, Learning styles, Horizontal networks.

### RESUMO:

O foco deste estudo está na busca de um entendimento sobre como ocorrem os processos de aprendizagem individual, organizacional e interorganizacional em duas redes horizontais do elo do varejo do agronegócio pertencentes ao segmento supermercadista. Assim, os objetivos deste trabalho consistem em: (i) propor um framework de análise do processo de aprendizagem entre organizações que estabelecem relacionamentos interorganizacionais horizontais, articulando a aprendizagem nos níveis individual, organizacional e interorganizacional e aplicá-lo em redes, e (ii) estabelecer relações entre os construtos e as categorias que compõem o framework. A presente pesquisa caracteriza-se por ser de natureza qualitativa e exploratória e o método adotado é o do estudo de casos múltiplos. A coleta dos dados ocorreu por meio de questionários, entrevistas, análise documental e histórias de aprendizagem. Para que ocorra um avanço no processo de aprendizagem, em âmbito interorganizacional, os resultados da pesquisa sinalizaram a importância de: comportamentos estratégicos voltados à colaboração; aprendizado por meio do método interativo e atribuição de uma maior valorização aos elementos de aprendizagem da dimensão comportamental-social, principalmente ao elemento-chave da confiança nos relacionamentos.

**PALAVRAS-CHAVE:** Aprendizagem individual, Aprendizagem organizacional, Aprendizagem interorganizacional, Estilos aprendizagem, Redes horizontais.

When it comes to new interorganizational methods that are getting popular on the agribusiness segment, there is the need to broaden the understanding on how the interorganizational relationships evolve, analyzing them under the perspective of individual, organizational and interorganizational learning, due to the different contributions that each learning level may bring for the effectiveness of collaborative relations. The articulation attempt between the individual and organizational learning levels represents a challenge for the academic research, as mentioned by Bastos et al. (2002) and, it is understood that, when the interorganizational level is added, this challenge becomes even bigger.

According to Mohr and Sengupta (2002), learning in interorganizational relationships rests on a paradox for researchers, academics and managers of organizations. On the one hand, some theorists consider interorganizational learning as an extension of organizational learning, developing a knowledge base that can present real opportunities and provide new insights for the implementation of strategies and the conquest of new markets (MOHR; SENHUPTA, 2002). That is, through interorganizational relationships organizations seek complementary skills to achieve strategic objectives and maximize the effectiveness and efficiency in the use of their resources in order to access and expand their participation in the market, thus increasing their competitive position (AMATO NETO, 2000). On the other hand, interorganizational learning can lead to the unintended and undesirable transfer of skills, resulting in a potential dilution of knowledge, which forms the basis of competitive advantage (MOHR; SENGUPTA, 2002) and limits the Transparency and information sharing.

The existence of this paradox requires studies that can guide managers and academics in the conduct of the learning process as a guarantee of sustainability for the interorganizational relationships and in the articulation of the factors involved, in order to maximize the benefits and minimize the risks underlying the collaborative relationships

Thus, the central question of research is to verify: how does the process of individual, organizational and interorganizational learning take place in two horizontal interorganizational networks, and what is the influence of the formation of networks in the learning process of the organizations inserted in them?

Therefore, by conducting this study, we intend to thicken the conceptual debate on the learning theme, according to the logics of horizontal interorganizational relationships (networks), taking this discussion to the field of agribusiness, which, on its own, may be characterized as complex and interdisciplinary, when examined more deeply. The focus of this study is in searching for a greater understanding on how the individual, organizational and interorganizational processes occur in two horizontal networks of the supermarket segment, located on the central region of Rio Grande do Sul.

Based on the aforesaid, the objectives of this paper are: (i) suggesting an analysis framework for the learning process among organizations that establish horizontal interorganizational relationships, articulating learning on the individual, organizational and interorganizational levels, and applying it to networks, and; (ii) establishing relationships between the constructs and the categories that constitute the framework based on empirical data.

Based on these objectives, this article is structured in other three sections, in addition to the introduction. The second section shows the theoretical references that were the basis to suggest the individual, organizational and interorganizational learning analysis framework. On the third section, the methodology and the procedures used to operate this research are discussed. The fourth section shows the results of the research, approaching a joint analysis of the studied networks and the relationships among the constructs and the categories analyzed on this study. Finally, the final considerations and the references that based this study are shown.

## THEORETICAL REFERENCES

The framework proposition was based on an analysis of the learning on the individual and organizational levels, later advancing to a discussion on learning on the interorganizational level, incorporating on this analysis two important theoretical branches when it comes to interorganizational relationships in the field of agribusiness, which are: opportunism and trust in cooperation relationships.

In order to analyze learning on the individual level, the option was to broaden the understanding on the individual learning styles, since, for Hayes and Allinson (1998), the cognitive style and the learning styles influence how the members of an organization gather and interpret the received information, and how they are incorporated to their own mental mindsets, which guide their behavior (HAYES; ALLINSON, 1998).

In the field of organizational studies, a highlight is the study on learning styles developed by Kolb (1997). This author developed the Managerial Learning Style Inventory, with the purpose of helping to identify the personal learning styles, contemplating two dimensions (the active-reflexive dimension and the abstract-concrete dimension), which originated four learning styles, knowingly: the converging, diverging, assimilating and accommodating styles. In relation to learning styles, Honey and Mumford (1992) refer to the difficulty to apply the Learning Style Inventory, by Kolb, to managers, since the aspects shown on the inventory are not able to describe many of the activities related to the actual work activities. In that sense, stimulated by the work by Kolb and maintaining the idea of four learning stages, Honey and Mumford (1992) developed a Learning Style Questionnaire (LSQ), with 80 items and four dimensions that originated the following styles: active, reflexive, theoretical, and pragmatic styles.

Therefore, in order to suggest the framework, the studies by Honey and Mumford (1992) were used as a basis, and the characteristics of the four learning styles suggested are described on Chart 1 and make it easier to better understand the individual preferences in relation to learning, offering subsidies to develop a set of abilities that aim to empower learning within the context of organizations.

Learning Style	Description	Empirical Elements
Active	Search for new experiences; Open mind; Perform new tasks with excitement; Grow when faced with challenges and new experiences.	Creative Innovative Spontaneous
Reflexive	Observe and understand the different experiences; Collect data and analyze them in details; Tend to postpone final conclusions; They are cautious; Listen to others before voicing their opinions.	Analytical Careful Researchers
Theoretical	Adapt and integrate observations on complex theories; Tend to be perfectionists; Like to analyze and synthesize; Search for rationality and objectivity; Follow a systematic process to approach problems.	Critics Organized
Pragmatic	They are keen on applying and experimenting ideas; Discover positive aspects on new ideas and take advantage of the first opportunity to experiment them; Tend to be impatient with theoretical people; They like to make things and act quickly and confidently; They are essentially hands-on.	Practical Realistic Experimenters

CHART 1

Characteristics and Learning Styles, according to Honey and Mumford (1992)

Source: Elaborated based on HONEY; MUMFORD (1992); MUMFORD (2001); PORTILHO (2004).

Identifying the learning styles will allow a better understanding on the preferences of people in relation to learning and will be a basis to design training and development programs with the purpose of developing a set of abilities and qualifications that may assist and empower the organizational learning.

The analysis of learning within the organizational context was based on the existence of learning levels and the processes involved in relation to the strengths and weaknesses regarding organizational learning. In relation to the learning levels, the framework suggested contemplates the conceptions shown by Argyris and Schön (1978) when they indicated the existence of three learning levels: single loop; double loop and deutero learning (third loop learning).

The single loop learning, according to Argyris and Schön (1978), usually creates short-term effects, partially affects the organization, and refers to how to make things better through experience. For Argyris and Schön (1978), this type of learning is oriented toward improving the repertoires and action strategies and does not imply paradigm changes to values, beliefs and presuppositions from the organizational agents.

The double loop learning aims to adjust norms and values, focuses on why things are made, with the purpose of developing new paradigms that involve questioning the fundamental values of the organization, and create long-term effects and impacts (ARGYRIS; SCHÖN, 1978; CABRAL, 2001). The deutero type of learning refers to the ability to “learn how to learn”, consisting in a change of posture by the individuals that are part of the organizations (ARGYRIS; SCHÖN, 1978).

The model by Brown and Hendry (1998) worked as a basis to analyze the processes that characterize learning and the strengths and weaknesses involved in organizational learning. This model was used for the framework proposition since it represents an advance on the study of learning and because it considers horizontal relationships (industrial districts) established among organizations, which is the focus of this work. With the purpose of exploring the impact of interorganizational relationships on the learning process, Brown and Hendry (1998) specified four processes that are involved in organizational learning. They are: a) Interpretation – it is the process through which the individuals within organizations provide a meaning to external events. These events may be the environmental response to actions undertaken by the organization or, more frequently, to the market activities; b) Innovation – it is the process through which the individuals within the organizations feel authorized to put into action what is outside their normal behavior in relation to their work. This may happen in the individual level, in group or within a team context; c) Integration – it is the process through which the new ideas and the innovative activities originated on the personal and local levels are explored and implemented on a broader platform by the company. This may result in the introduction of new procedures, products and services, and; d) Action – it is the process through which the organizations make collective choices and take strategic actions (BROWN; HENDRY, 1998).

Moving forward to an analysis of learning within the interorganizational context, the theoretical supports and models by Larsson et al. (1998); Lane and Lubatkin (1998) and Lubatkin, Florin and Lane (2001) worked as a reference to conduct this research. The model developed by Larsson et al. (1998) allows to identify the learning strategies used by the organizations that establish interorganizational relationships. The typology developed by Larsson et al. (1998) shows five types of strategic behaviors, based on the transparency and receptivity in relation to the partners, knowingly: collaboration, competition, commitment, avoidance and accommodation.

Collaboration and competition strategies are considered, by the authors, as highly aggressive ones, since they are high receptive to absorb the knowledge of the partner companies. The difference between these two types of strategic behaviors lies, precisely, on the transparency to discover the knowledge of companies that establish cooperation relationships. In opposition, the avoidance and accommodation strategies show low receptivity to absorb new knowledge that is exchanged in the relationships among partner companies. The commitment strategy is characterized for being moderately receptive and moderately transparent (LARSSON et al. 1998).



According to Larsson et al. (1998), the strategic behaviors oriented toward competition may result on additional knowledge to the partnering companies that adopt a high transparency behavior. However, this intention may affect other partnering organizations, leading them to also adopt strategic behaviors oriented toward competition. Under this perspective, these same authors add that the combinations involving accommodating or competitive strategies may lead to asymmetric results in terms of interorganizational learning.

The learning methods, suggested by Lane and Lubatkin (1998), were considered for the framework proposition, since it allows to understand how the organizations that establish relationships appropriate the knowledge that is being shared, as well as the types of knowledge involved in the established relationships. For these authors, there are three methods to learn a new external knowledge (active, passive and interactive learning), and each method offers a different type of knowledge.

According to Lane and Lubatkin (1998), the active and passive types of learning offer articulable (observable) knowledge, which means that this knowledge is not rare, is not imperfectly marketable and is not expensive to copy. Transferring this type of knowledge, for these authors, may guide the development of abilities, but does not allow organizations to make them unique, less prone to copying or with greater strategic value. This may be made through interactive learning, since companies develop abilities to acquire and understand the observable and tacit components of the knowledge that are embedded within the social context of the companies.

The framework suggested in this study contemplated the evolutionary model developed by Lubatkin, Florin and Lane (2001). This model, for these authors, contemplates successive learning cycles called convergence, divergence and re-orientation, and takes into consideration the interdependency of resources, objectives and tasks. Using this model allows to verify in which evolutionary stage the organizations are at, as well as the interdependency levels of existing resources, objectives and tasks on the interorganizational relationships. The attempt to better understand these aspects may facilitate the creation of knowledge among the organizations and contribute to strengthen the cooperative work among those involved.

According to Lubatkin, Florin and Lane (2001), convergence is the first of the three evolutionary processes in which the learning process occurs by reciprocity of resources and objectives, representing an interactive process through which the partnering companies at the same time learn how to trust and learn how to learn. During the phase called divergence, Lubatkin, Florin and Lane (2001) mention that the learning process of the companies involved in reciprocal learning alliances occurs due to the specialization through the interdependence of tasks.

Lubatkin, Florin and Lane (2001) point out that the progression to the final stage of an inter-company knowledge structure, called reorientation, may not occur if a company does not act in good faith. This stage involves a dynamic, non-linear and inductive process of common discoveries that depend on cognitive, behavioral and administrative factors. For these authors, during the reorientation stage, learning within alliances is only possible if three interdependencies exist: resources, goals and tasks.

Another relevant contribution is due to the study by Macdonald and Crossan (2010) mentioning that current theory predicts that a company's ability to explore new perspectives is limited externally by the expectations of society and industry, and internally by social identities, as well as by the Organizational identity. These same authors add that behavioral issues have received little attention and propose that the behaviors practiced by an individual or organization can be as important for learning as their beliefs.

The development of the framework also contemplated the analysis of the interorganizational learning elements that may contribute to strengthen and maintain the interorganizational relationships with time. These elements emerged from the theoretical references and were grouped into two dimensions: cognitive-structural and behavioral-social. The classification into these two dimensions was inspired by the studies developed by Easterby-Smith and Araújo (2001) and by Antonello (2004), who defend that the most significant distinction among the authors that write about organizational learning may be summed up

according to the emphasis these authors attribute to learning: as a technical process or as a social process. Therefore, an attempt was made to broaden these dimensions to the interorganizational level, since it is understood that the emphasis given to interorganizational learning contemplates both these dimensions. In this study, the cognitive/structural dimension is more related to the technical perspective suggested by Easterby-Smith and Araújo (2001) and the social/behavioral dimension of the social perspective indicated by these authors.

The cognitive/structural dimension consists in elements related to the ability of organizations to identify, acquire, internalize and transfer knowledge. In addition, it involves aspects related to knowledge symmetries and asymmetries, previous knowledge from the partners, conduction of joint researches, degree of interdependency of tasks and resources, as well as variables related to time, technology and structure of the companies and networks. The behavioral/social dimensions focus on aspects related to the interactions among the organizations involved in collaborative actions. The elements grouped into this dimension attempt to manifest the methods according to which organizations behave when they work jointly, as well as focusing on trust, communication, transfer of tacit and explicit knowledge, joint training, control/governance mechanisms, interdependency of objectives, creation of new knowledge, existence of compatible rules and values, culture, and uncertainty as relevant aspects to be observed when analyzing the interorganizational learning process.

The study of Mozzato and Bitencourt (2013) on the process of interorganizational learning by proposing a construct contemplates six elements of this process, including: trust established among agents; Cooperation between agents; Social interactions; interdependence; Social proximity and susceptibility to learning.

In order to further understand how the learning process occurs among organizations that establish interorganizational relationships, the analysis on opportunism and trust on the cooperation relationships is added. Opportunism is one of the assumptions of Transaction Cost Economics (WILLIAMSON, 1985) and, by further understanding this theoretical area, it is possible to better understand the issues involved in the creation and performance of the interorganizational arrangements and the interorganizational learning process. On interorganizational relationships, opportunism may be seen as a key factor and refers to the following thinking: do organizations that are part of interorganizational relationships adopt opportunistic initiatives, holding privileged information, transmitting distorted information to the others and, oftentimes, breaching agreements with the purpose of obtaining the profits resulting from the transaction? This question must be discussed, since opportunism may imply losses for some organizations involved in the transaction.

For the analysis on trust, the models by Barney and Hansen (1994); Larsson et al. (1998) and Child (1999) were contemplated in the framework suggested by allowing an understanding of the trust level present on the relationships and its influence on the interorganizational learning process. According to Larsson et al. (1998), the literature involving the theme on interorganizational trust comprehends two dimensions: the calculative and the behavioral dimensions. Calculative trust is based on the rational motivation to be part of the relationship in order to add value through the complementarity of resources, mutual help, and the effects to reputation. Behavioral trust, for Larsson et al. (1998), refers to pure trust, based on good faith beliefs and optimistic expectations that the other party will take positive measures and avoid negative actions. Both dimensions are inter-related and are mutually relevant for the interorganizational studies.

Adding to this discussion is the study by Child (1999), establishing a dialogue involving trust and international strategic alliances. Child (1999) shows a discussion on the conditional nature of trust, by analyzing aspects that involve fields in which trust must be developed and the foundations it must be based on. Aligned to this perspective, to better understand trust is cooperation relationships, specially regarding interorganizational relationships, Child (1999) shows a distinction among calculating, cognitive and normative trust, according to the evolutionary phases of the cooperation relationships. Calculating trust involves expectations regarding the partners, is based on an assurance that the involved partners will meet their agreement, since the punishment for violating this trust is greater than the benefits involved. Cognitive

trust, still according to Child (1999, p. 155), offers a foundation to understand the actions of the partners, and “from the usual cognitions comes the additional assurance that one of the partners may reasonably predict the actions of the others based on the shared expectations”. During this phase, there is a greater mutual understanding, allowing a better understanding on how the partners think, previously knowing their behavior. Normative trust involves sharing common values among the parties, based on the interpersonal and friendship relationships that, when developed on the long term, may offer a basis for this type of trust to develop (CHILD, 1999).

Reinforcing the analysis on trust in the cooperation relationships, Barney and Hansen (1994) developed a study with the purpose of understanding the conditions under which trust, in the relationships among companies, may be considered a source for competitive edge performance improvement for organizations. In that sense, authors show three types of trust that may emerge on the cooperation relationships, they are: weak, semi-strong and strong types. The weak type of trust is not usually considered a source of competitive edge, since there is an equality condition among the parties, and expenditures to build governance mechanisms are not justified. In order for the semi-strong type of trust to be a source of competitive edge, there must be a lot of heterogeneity among the abilities and capacities of the agents involved in the transactions. In relation to the strong type of trust as a source of competitive edge, it is necessary that all parties behave reliably, otherwise, there will be the need to create governance mechanisms to control the transactions among the involved agents (BARNEY; HANSEN, 1994).

Therefore, the development of an analysis framework on how learning occurs on organizations within horizontal networks was built based on the theoretical references used in this research and with the purpose of assisting and allowing a better understanding of the studied reality, to the extent in which it tries to establish relationships among the theoretical constructs involved on the studied theme. Therefore, Figure 1 shows the suggested framework.

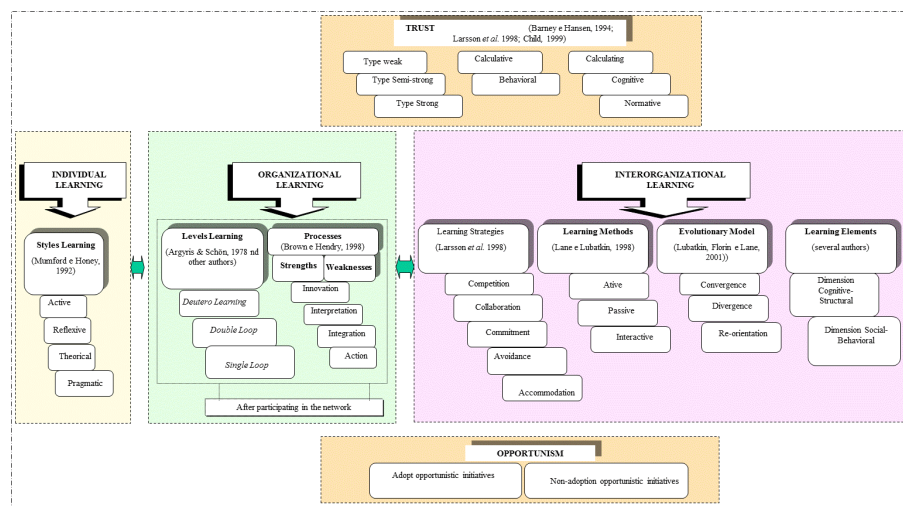


FIGURE 1  
Suggested Analysis Framework

Source: Elaborated by the authors based on HONEY; MUMFORD (1992); ARGYRIS; SCHÖN (1978); BROWN; HENDRY (1998); LARSSON et al. (1998); LANE; LUBATKIN (1998); LUBATKIN; FLORIN; LANE (2001); WILLIAMSON (1985); BARNEY; HANSEN (1994); CHILD (1999).

## METHODOLOGY

This research is characterized by its qualitative nature, which, according to Malhotra (2012), offers valuable insights that allow us to reach a qualitative understanding of the underlying reasons and motivations to the suggested problem. The research strategy may be classified as exploratory, since, as the studies



on learning (individual, organizational and interorganizational learning) and opportunism and trust in interorganizational relationships are emerging issues in the academic world, and empirical studies dealing with the Brazilian context are still necessary, it is understood that this study broadens the understanding and familiarity of these complex phenomena. Therefore, it is believed that it may motivate other researchers to develop new researches on this theme. According to the proposal by Gil (1999), exploratory studies offer greater flexibility in the search of information on a certain problem, aiming at making it clearer, and allowing new ideas on the approached theme to be built.

The method used to conduct this research is the study of multiple cases (YIN, 2015), since the analysis units are two supermarket networks, which establish horizontal relationships, constituted by small and medium companies that operate within the agribusiness industry of the retail chain. This method was chosen due to the fact that it seems to be aligned with the research question and with the objectives suggested in this study. The choice for the studied networks was intentional, based on the interest and relevance of the retail chain for agribusiness in general. The retail industry is considered a key chain within the agrifood product chain and it has an important and dominating role to define the choices for the activities to be developed by the companies (chains) that provide their products for commercialization.

Figure 2 presents the methodological course used for the development of the present research.

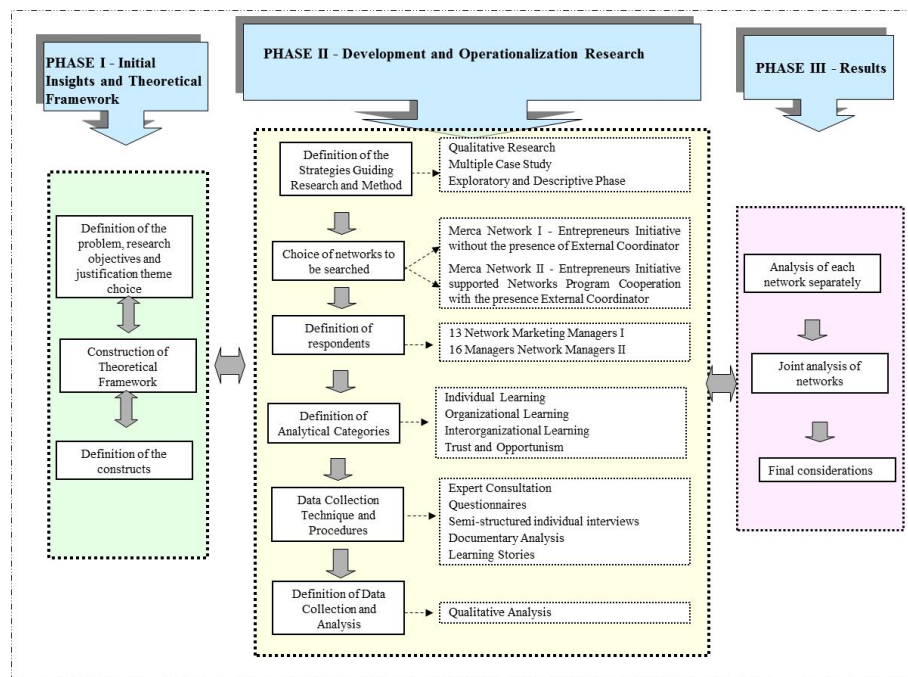


FIGURE 2  
Methodological Approach  
Source: Elaborated by the authors.

One of the researched networks was created from initiatives by executives, who gathered to establish cooperation relationships without the presence of an external coordinator, herein referred to as Market Network I. The other network was also created through executive initiatives; however, it was supported by the Program of Cooperation Networks of the Government of the State of Rio Grande do Sul, with the presence of an external coordinator and the adoption of a predetermined methodology, referred to as Market Network II. Market Network I is constituted by 13 companies, operating in seven cities, and Market Network II is integrated by 17 companies, operating in 10 cities from Rio Grande do Sul.

The interviewees were the managers of the organizations inserted on the analyzed networks, with a total of 29 people, considering that 13 of these managers work for the Market Network I and the other 16 managers work for the Market Network II, and one of the managers from this network own two supermarkets that

integrate the network. The data collection occurred in four stages, and the techniques used focused on the following sources of evidences: questionnaires, semi-structured individual interviews, documental sources and, according to the same line as the studies by Cabral (2001), another learning evaluation instrument was also used, referred to as learning stories.

The data collection instruments were constructed and elaborated based on the analytical categories used, that is, the theoretical constructs and the conceptual definitions that served as reference for achieving the objectives proposed for the accomplishment of the present study. In addition to the theoretical constructs, we also sought to synthesize the analytical categories, the main authors and the dimensions / variables involved, as shown in Chart 2.

Theoretical Construct	Analytical Categories	Main Authors	Dimensions / Variables
Individual Learning	Learning Styles	Honey e Mumford's (1992) Portilho (2004)	Active Reflective Pragmatic Theoretical
Organizational Learning	Levels of Learning	Argyris; Schön (1978); Senge (1990); Fiol; Lyles (1985); Sweringa; Wierdsma (1995); Probst; Büchel (1997); Child; Faulkner (1998); Ciborra; Andreu (2002).	First level – Single loop Second level – Double loop
	Strengths and Weaknesses	Brown; Hendry (1998)	Individual Propensity: Innovate; To interpret Organizational Processes: To integrate; Act
Learning Interorganizational	Individual Strategies for Interorganizational Learning	Larsson et al. (1998)	Collaboration Competition Commitment Accommodation Avoidance
	Learning Methods	Lane; Lubatkin, (1998); Lane; Salk; Lyles (2001).	Passive Learning Active Learning Interactive Learning
	Evolutionary Model of Interorganizational Learning	Lubatkin; Florin; Lane (2001)	Convergence Divergence Re-orientation
	Elements of Interorganizational Learning	Several authors consulted	Elements of the Structural Cognitive Dimension Elements of the Behavioral- Social Dimension
Trust and Opportunism	Opportunism	Williamson (1975); Fiani, (2004).	Existence or not of opportunistic initiatives
	Trust	Child (1999); Lewicki; Bunker (1996);	Calculating Trust Cognitive Trust Normative Trust
		Larsson et al. (1998);	Calculating Trust Behavioral Trust
		Barney; Hansen (1994)	Type weak Type Smi-strong Type Strong

CHART 2  
Definition of Analytical Categories

Source: Elaborated by the authors.

In this study, content analysis (BARDIN, 2014) was used as the central strategy for the analysis of the research data. The analysis of content, according to Bardin (2014), predicts three fundamental phases, called: pre-analysis, analytical description and referential interpretation. In the present research, the pre-analysis phase consisted of an organization of all the material collected during the research in the Merca I Network and the Merca II Network and a dynamic reading of it, seeking to identify emerging themes related to

analytical categories previously established for this study. In this phase of pre-analysis, we tried to establish some initial categories to be able to classify the collected data.

In the analytical description phase, a more in-depth analysis of the material collected in the research was carried out with the Merca I Network and the Merca II Network. Initially, maps, worksheets and tables were elaborated from each individual network to facilitate the exploration and depth analysis of the data collected. Afterwards, maps, worksheets and tables were elaborated considering the two networks together. Based on this more detailed analysis, we tried to identify which of the ideas raised were convergent and which were divergent among the interviewees belonging to the two networks studied.

In the present research, the reference interpretation phase consisted of a quantitative treatment of the data, through the use of sphinx software and a qualitative analysis, which allowed to verify the homogeneity and the heterogeneity between the perceptions of the managers of the organizations inserted in the networks analyzed.

## PRESENTATION AND DISCUSSION OF THE RESULTS

### From Individual Learning to Interorganizational Learning: A Joint Analysis of the Studies Networks

This section initially presents an individual analysis of the learning styles of the managers that integrate both analyzed networks. Then, the organizational learning was analyzed, according to the perspective of the learning levels and the strengths and barriers involved in this process. Afterwards, an attempt was made to better understand interorganizational learning through an analysis of the learning strategies adopted by the companies, the methods and evolutionary model for the interorganizational learning, and the elements that are valued the most by the organizations that integrate the studied networks. Finally, an attempt was made to reach a better understanding on two important theoretical bases regarding organizational learning, which are: opportunism and trust among the companies that establish cooperation relationships.

Within the researched networks, there are different individual learning styles that prevail among managers. The results found indicate that the managers belonging to the organizations from the Market Network I (without an external coordinator) manifested their definite preference for the pragmatic learning style, while the managers that integrate the organizations from the Market Network II (with an external coordinator) indicate they prefer the reflexive learning style. The theoretical learning style showed a lower average in relation to the managers from Market Network I, and the active learning style had the lowest average, when the managers of Market Network II were considered.

According to Honey and Mumford (1992), Alonso, Galego and Honey (1999), and Portilho (2004), the people with the pragmatic style of learning present the application and experimentation of new ideas. Managers with learning characteristics of this style tend to have essentially practical attitudes and prefer the search for realistic solutions to the problems they face.

In addition to the diagnosis of the learning styles of the interviewed managers, an attempt was made to analyze the organizational learning process according to the perspective of the learning levels and the strengths and barriers involved in this process. The research results indicate that for the companies that integrate the Market Network I (without an external coordinator), the single loop learning has occurred, since changes have occurred only on the work procedures and routines, and why things are effectively made is not questioned.

In the Argyris and Schön (1978) conception, single loop learning refers to the detection and correction of error, but does not re-examine the assumptions or variables involved. For the authors, this type of learning

can be considered as incremental and adaptive, since its focus is centered on the routines of organizational change, and is therefore called restricted organizational learning (VALENÇA, 1997).

These results also show that, in companies that establish horizontal relationships on a network whose motivational factor for the creation of the network was the initiative of the executive, without the presence of an external coordinator, learning is basically focused on identifying and correcting mistakes. This could be verified since a critical awareness by the managers was not yet perceived, nor an analysis and reflection on the assumptions that guide them to make decisions.

In agreement with this understanding, the research results lead to an understanding that the existence of higher trust levels among the organizations that integrate the analyzed network may contribute to the advancement from the single loop learning to the double loop learning, creating organizational and social conditions for this to effectively occur. In addition, the data also led to the understanding that there is a need to change how these managers think and act personally, as well as how they manage their organizations, in order not to inhibit double loop learning, both within the organization and among them and the other organizations of the network.

On companies that are part of Market Network II, in which there is an external coordinator, the results indicate the occurrence of a double loop learning. This type of learning has occurred through a change in the mental models of the managers, and it was also promoted changes in how their teams think and act, as well as in the network as a whole. In the research, it was clear that both the long-term concern and the questioning of why things are made has contributed to the ability of organizations to solve collective problems. These results allow us to infer that the evolution for the double loop learning, on the analyzed network, may also, at least partially, be due to the greater level of trust observed on the relationships. This greater trust is a more favorable factor for learning to effectively occur. Therefore, trust, together with the presence of an external person outside the organization, is an agent for changes, facilitating the relationships among the companies inserted in the network, and also how the different involved agents act.

Taking as reference the construct by Brown and Hendry (1998), the results found show that, for Market Network I (in which there is no external coordinator), these strengths act on the individual level and contemplate activities connected to interpretation and innovation. And the referred weaknesses act both on the organizational processes and the individual processes, related to the interpretation, integration and action activities. In terms of strengths and weaknesses that may facilitate and/or hinder the learning of organizations that operation within Market Network I, the research results indicate the need by the managers to break paradigms, and also the need for a change in their mindset, in the sense of promoting the notion of collectivity, thus, reducing the individualist actions that still prevail on the relationships among the companies.

A relationship between strengths and weaknesses in horizontal relationships, as proposed by Brown and Hendry (1998), found that the learning-facilitating forces of the organizations in the analyzed network reside in the individual-level processes, contemplating the activities of Interpretation and innovation. In contrast to the weaknesses and barriers that hinder the learning process, unlike Brown and Hendry (1998), it was found that they reside in both organizational and individual processes related to the activities of interpretation, innovation, integration and action.

On Market Network II (in which there is an external coordinator), it was observed that the strengths that facilitate learning act on the individual and organizational process related to the four activities that constitute the model: interpreting, innovating, integrating, and acting. And the weaknesses related to this type of learning are basically concentrated on the organizational processes related to the integration and action activities. These results represent a favorable indication for the learning process, since the facilitating strengths were detected on the four processes that constitute the model suggested by Brown and Hendry (1998).

Advancing on the learning analysis to the interorganizational level, an attempt was made to identify the individual learning strategies adopted by the companies inserted on horizontal networks, as well as to analyze their methods and evolutionary stage. On companies that are part of Market Network I (in which there is no external coordinator) prevailing strategical behaviors were observed, varying from the commitment strategy up to the competition strategy. This trend indicates a limited transfer in terms of amount of shared knowledge among organizations. Such behavioral limitation requires a careful analysis on the reasons that restrict the degrees of transparency and receptivity by the companies that establish partnering relationships. On the organizations that are part of Market Network II, a trend to establish strategic behaviors oriented toward collaboration was observed, representing a favorable indication towards interorganizational learning and a stronger sense of trust among the partnering companies.

Regarding the methods used and the evolutionary stages in which the companies are, it was verified that they differ between both networks analyzed. Market Network I may be characterized by the active and passive learning method, while Market Network II may be identified as adopting the interactive method. These findings represent an indication that the creation of a higher level of trust among the agents involved on Market Network I may be an element that allows the coevolution toward the posterior evolutionary stages of this process, in the sense that it will increase the commitment of organizations that integrate it regarding the relationships established under the perspective of cooperation and, consequently, toward the interorganizational learning process.

Under the perspective of the evolutionary model, the empirical evidences show that Market Network I is on the converging stage, while Market Network II has already evolved to the re-orientation stage. Based on these findings, it could be concluded that the advance toward the reorientation evolutionary stage on Market Network II comes from the presence of the collaborative spirit and the trust relationships among the companies.

Another analysis category that helped to understand how learning occurs among companies that establish horizontal relationships on a network refers to the value attributed to the learning elements. It is noteworthy that the managers from Market Network I value more the elements from the cognitive-structural dimension, and the managers from Market Network II value more the elements from the behavioral-social dimension. In relation to the influence of the learning elements, the empirical findings on both studied networks allow us to infer that the elements from the behavioral-social dimension have a stronger influence over the learning process across the organizations that establish horizontal relationships on a network. Such inference is due to the fact that, on the Network in which it was observed that the managers value these elements more, learning has occurred at a higher level (double loop).

Regarding trust and opportunism in cooperation relationships, the results indicate that organizations that integrate the Market Network I find room to develop opportunistic actions, and they do so to try to obtain individual advantages in terms of learning. The results show that the individualistic nature still prevails on the relationships established among managers. This trend has manifested by some companies holding privileged information and by the lack of clarity and transparency of the information and knowledge that are shared.

On Market Network II, differently from what was observed on Market Network I, the adoption of opportunistic behaviors by the involved parties was not observed, and it is understood that trust has increased as the relationships evolve with time. These results imply the following alternative reflections: either (a) organizations are really not adopting opportunistic initiatives, trying to prioritize the idea of the collective and the collaboration among companies, or (b) there are no effective control mechanisms that to verify the adoption of initiatives of this type, and, if they occur, they go unnoticed by the managers involved in the relationships. According to the perception of the managers, the favorable environment for the interorganizational relationships to occur have eliminated the adoption of opportunistic behaviors through the self-exclusion of the partners that adopt initiatives of this nature.



## Establishing Relationships Between the Constructs and the Categories Analyzed on the Suggested Framework

Aiming at a broader and deeper understanding on how the learning process occurs among organizations that establish horizontal relationships on a network, an analysis was made to establish relationships among the constructs and the categories represented on the suggested framework, considering the joint examination of both studied cases.

By establishing relationships among the learning styles and the organizational learning levels, it was observed that the managers that prefer the reflexive learning style consider that the participation in the network has offered a higher learning level (double loop) for the organizations that participated in it. Managers with prevailing characteristics of the pragmatic learning style mentioned that the insertion on a network has allowed a single loop learning, since the perceived changes are due to the acquisition of new work techniques, routines and procedures. A trend was also identified by the managers with characteristics from the theoretical learning style regarding the existence of the double loop learning. And, in relation to managers that prefer the active learning style, it was observed that they consider low-level learning (single loop) has prevailed on the organizations that belong to the analyzed networks.

In relation to the strengths and barriers that refer to the organizational learning process, a trend was observed for the managers with characteristics of the active and pragmatic learning style, indicating that they consider that the strengths act primordially on the individual-level processes, and that the barriers act primordially on the individual and organizational-level processes. In relation to the managers that value characteristics from the theoretical and reflexive learning styles, the opposite was verified, since the strengths related to learning lie on the individual and organizational-level processes, while the barriers act on the organizational-level processes.

Outlining a relationship among the learning styles and the individual interorganizational learning strategies, it was verified that, in organizations that prefer the reflexive and theoretical learning styles, the prevailing learning strategy is the collaborating one. This is materialized through high transparency and high to moderate receptivity among the partners. In organizations in which the interviewees revealed they prioritized characteristics from the pragmatic learning style, it was observed the existence of strategic behaviors committed to competition, with moderate transparency and high receptivity to absorb and share knowledge. On organizations in which the managers show characteristics of the active learning style, it was possible to observe a greater trend to adopt avoiding strategies, related to learning, by adopting low transparency and low receptivity behaviors.

As to the learning methods and the evolutionary model, it was observed that, on organizations in which the managers prioritized characteristics from the active and pragmatic learning styles, there is a trend for passive and active learning, as well as for the converging evolutionary stage. In companies where managers prioritized characteristics from the theoretical and reflexive learning styles, there is a trend toward interactive learning and the reorientation evolutionary stage.

Results showed that the managers with prevailing characteristics from the reflexive and theoretical learning styles attribute greater value to the interorganizational learning elements belonging to the behavioral-social dimension. Managers with pragmatic and active learning styles seemed to value more the interorganizational learning elements from the cognitive-structural dimension.

By broadening this discussion, adding to it the themes of trust and opportunism in cooperation relationships, it was observed on the conducted studies that there is usually a coexistence of trust and opportunism among the involved agents. In this study, it could be verified that, among the managers that prioritize learning characteristics from the theoretical and reflexive styles, the existence of trust without opportunism was verified. This, in turn, requires a transformation on the mental models of managers, on their way of thinking and acting. This is a type of change that represents a major challenge, when it comes

to the positioning and behaviors of managers belonging to organizations that establish interorganizational relationships.

With the purpose of offering a better visualization of the existing relationships across the studied constructs and categories, Figure 3 was elaborated, as shown below.

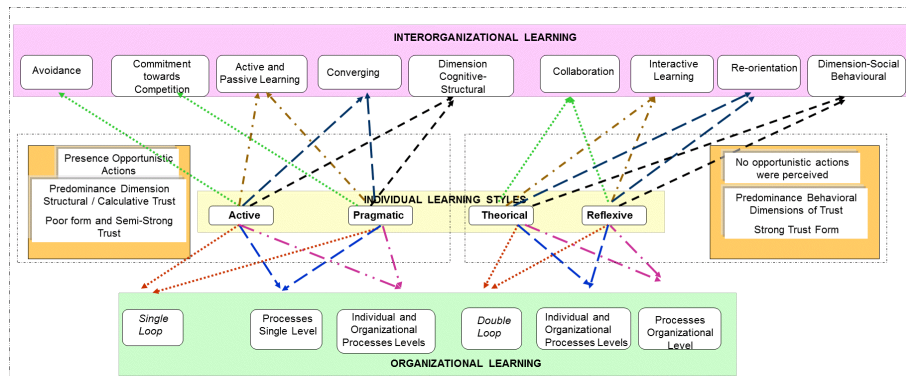


FIGURE 3  
Articulation across the analyzed categories  
Source: Elaborated base on the research data.

## FINAL CONSIDERATIONS

This research allowed the establishment of a parallel among the theoretical approaches and the evidences revealed through the results found. Through this research, some relevant point emerged in relation to the learning process among organizations that establish horizontal relationships on a network, among which, the following are highlighted: (a) stronger trust relationships may contribute to maintain the relationships, as they evolve, making it easier to develop collective actions and the learning process across partnering companies. Trust was considered the most valued element by the participants, and it strongly influences the interorganizational learning process. The research results are in agreement with the opinion by Lourenzani (2005), pointing out that the collaborative actions based on trust may promote long-term relationships, as well as the opinion by Ghisi (2005), stating that trust is one of the main variables to consolidate relationships among partners; (b) the presence of an external coordinator outside the networks and the use of an adequate methodology allow greater interaction among the people, creating an environment that is prone to dialogue and the exchange of experiences and knowledge, facilitating the learning process among companies. These findings corroborate with the understanding by Verschoore (2003) indicating the importance of qualified professionals as conflict mediators and to motivate the associates; (c) the role of the coordination, which acts as a catalyzer and propeller of new ideas and new actions, has promoted creativity and innovation among the members of the networks, also inducing greater levels of interaction among the involved agents. In that sense, these ideas corroborate with the ones by Barboza (2006), mentioning that the participation of consultants and management instruments may work as a catalyzer and facilitating agent for the relationships; (d) the use of a methodology to help conduct the evolutionary process of the relationships facilitate the Exchange of tacit and explicit knowledge, and it also positively influences the learning process across partnering companies; and (e) in order for the learning process to advance, on an interorganizational level, the results of this research indicate the importance of: strategic behaviors oriented toward collaboration (LARSSON et al., 1998); learning through the interactive method (LANE; LUBATKIN, 1998); and attribution of greater value to the learning elements of the behavioral-social dimension, mainly the key element of trust on relationships.

The theoretical approaches that worked as the basis to develop this research, together with the empirical findings, contributed both to the academic context and to the business context. One of the contributions of this study refers to the fact that the individual, organizational and interorganizational types of learning

are considered, by several authors, as emerging themes. Therefore, such themes need to be further analyzed both by broadening these concepts and by involving the relationships that occur across organizations. Thus, deeper studies on this theme are relevant, since they allow a broader knowledge related to this area, through theoretical-conceptual and practical analyses. From this perspective, the study of topics encompassing local and cultural characteristics can impact learning processes at different levels, especially in the case of organizations that establish horizontal network relationships. In addition, critical evaluations on how the relationships establish are also important to offer a better understanding of this process, in order to facilitate the development and strengthen the interorganizational relationships.

From the pragmatic perspective, this research may be a useful contribution for people and organizations, which may count on this study to make decisions and take new measures to build a new learning culture. And these processes must value, among other aspects, the investigation and analysis of the learning elements considered essential on the interorganizational relationships. This study may also help to identify the factors that may limit and/or facilitate this process, mainly due to the fact that there are few empirical works involving this theme, specially within the Brazilian context. As an innovative contribution of the present study we highlight the analysis of the strategic behavior adopted by the companies; The investigation of the elements that are part of the learning process of organizations that participate in cooperative actions; And a greater understanding of how this process occurs. Such a discussion can improve the understanding of these themes as they relate to the new organizational values that are emerging through collective action by organizations.

Another contribution of this research is to take this discussion to the field of organizations within the supermarket industry, due to the significant importance of this sector for the social and economic fields of the country. The importance of this activity for agribusiness, in addition to the important role that this chain has over the other chains, has manifested mainly through the growth in the area of sales, the number of check-outs and the number of creation of direct jobs in the Brazilian economy. For managers, a greater understanding of learning, from the individual level up to the interorganizational level, may be an adequate strategy to develop behaviors oriented toward cooperation, by participating in horizontal interorganizational arrangements that may lead to improved competition among organizations and the network itself.

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