Eixo Temático: Estratégia e Internacionalização de Empresas

DOES PARTICIPATION IN A NETWORK CHANGE A MEMBER ORGANIZATION?

A PARTICIPAÇÃO EM UMA REDE MUDA UMA ORGANIZAÇÃO PARTICIPANTE?

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ABSTRACT

When organizations enter networks to capture a variety of advantages they face a range of new routines and changes originated from activities in the network. So, an increasingly important requirement for organizations when they join a network is the ability to adapt to different organizational cultures and ways of operating. But there are very few studies of how organizations adapt to and are changed by their participation in networks, and this subject is the focus of this article. The objective of this paper is to build a theoretical framework to evaluate network member's changes after their entering into the network. To this, we use Pettigrew's (1987) change model to design an overall framework of changes that can happen when an organization enters into a network. We conclude that complex balance between contend, context and process aspects have to be done and adapted by network members.

Keywords: organizational change, networks, operation pattern.

RESUMO

Quando as organizações entram em redes para capturar uma variedade de vantagens, elas enfrentam uma série de novas rotinas e mudanças originadas de atividades na rede. Assim, um requisito cada vez mais importante para as organizações quando se juntam a uma rede é a capacidade de se adaptar a diferentes culturas organizacionais e formas de operar. Mas há muito poucos estudos sobre como as organizações se adaptam e são modificadas por sua participação em redes, e esse assunto é o foco deste artigo. O objetivo deste trabalho é construir um quadro teórico para avaliar as mudanças do membro da rede após sua entrada na rede. Para isso, usamos o modelo de mudança de Pettigrew (1987) para projetar um quadro geral de mudanças que podem acontecer quando uma organização entra em uma rede. Concluímos que o equilíbrio complexo entre os aspectos de conteúdo, contexto e processo tem de ser feito e adaptado pelos membros da rede.

Palavras-chave: mudança organizacional, redes, padrão de operação.

1. INTRODUCTION

Organizations and companies are increasingly part of networks to capture a variety of advantages. As some of these advantages we can cite the possibility of share risks with other firms (Wildeman, 1998; Sadowski and Duysters, 2008), share costs of communication and marketing (Lamb *et al.*, 2008), share resources and knowledge (Larsson *et al.*, 1998; Chen, 2010), achieve economies of scale (Balmann *et al.*, 1996), obtain legitimacy (Pesämaa, 2007) and innovation (Westerlund e Rajala, 2010). In this context, a great recent deal of what has been written about networks is about the advantages of networks (Corsten *et al.*, 2011; Mariotti and Delbridge, 2012; Popp *et al.* 2013; Vasudeva *et al.*, 2013; Chassagnon, 2013). Parmigiani and Rivera-Santos (2011, pg. 1109) highlight: "no organization is an island - all need relationships with other organizations to survive and grow". An increasingly important requirement for organizations when they join a network is the ability to adapt to different organizational cultures and ways of operating, but there are very few studies of how organizations adapt to and are changed by their participation in networks.

A number of studies has been done of changes at the network level, for example, Morrissey *et al*. (1997), Kim *et al*. (2006), Beckman *et al*. (2004), Knoben *et al*. (2006), Wendel *et al*. (2010), Degbey and Pelto (2013), and Leonardi (2013). But our starting point is the belief that in order to understand change in organizational networks, we must examine why organizational changes occur, because the members and the relationships between them are generators of change in networks (Havila and Salmi, 2000). Change in networks depends on the interaction between new procedures, products, acts, and so on, by the member organizations and their and agents. This drives change in organizational relationships and, therefore, the evolution of interorganizational networks, like Håkansson *et al*. (2009) point out: the basic tenet of the Interaction and Network approach is that change and dynamics are based on the interaction processes between active and purposeful actors in the network.

Organizations face different kinds of changes when they join an interorganizational network than they do as a single organization in a competitive market for example. The changes may require the organization to adapt to new technologies, new governance forms (Provan and Kenis, 2008), new products or services, new business processes, etc. The organization needs to adapt to these changes and insert them into their day-a-day work so they can be able to obtain the potential advantages of network membership. Consistent with this idea, our study was organized around a single fundamental research question: How does participation in a network change a member organization?

Theories typically placed in this adaptational field of changes include resource dependency theory (Pfeffer and Salancik, 1978; Burt, 1992), transaction cost economies (Willianson, 1975) and institutional theory (DiMaggio and Powell, 1983). In the context of organizations, Nadler et al. (1994) argue that change consists of an organizational response to shifts in the environment in such a way that enables the integration between its components: work, people, formal and informal organizational arrangements. Barnett and Carroll (1995) highlight that organizational change can be usefully conceptualized in terms of both its process and content. We use Pettigrew's (1987) change model to design an overall framework of changes that can happen when an organization enters into a network. The model treats the change in companies as a continuous interaction between content, context and process of change, because the analysis of change is the notion that formulating the content of any new strategy inevitably entails managing its context and process (Pettigrew, 1987). So, he explains that "broadly speaking, the 'what' of change is encapsulated under the label content, much of the 'why' of change is derived from an analysis of inner and outer context, and the 'how' of change can be understood from an analysis of process" (p. 658).

We focus mainly on those researchers that adopt the organization as a unit of analysis and that either conceptualize change as a dependent variable or explore the changes in an interorganizational network to draw our theorical background. The work highlights aspects that should be adapted by the members to get at least the same results that they had before they entered into the network arrangement. Focusing on change at the organizational level of analysis will guide us toward a better understanding of how organizations are changed by their participation in a network. Moreover, the basics organizational theories would be enhanced by greater attention to the issue of organizational change.

2. THEORICAL BACKGROUND AND PROPOSITIONS

2.1. ORGANIZATIONAL CHANGES REGARDED TO CONTENT

Building on the insights of resource dependency theory, interorganizational relationships occur when two or more organizations transact for any kind of resources in order to provide each other with the resources needed to survive (Galaskiewicz, 1985; Gray and Wood, 1991). According to this theory, one of the main reasons for companies to cooperate in networks is to pursue and acquire valuable and scarce resources that they don't have. Pfeffer and Salancik (1978) and Alter and Hage (1993) state that resource scarcity prompts organizations to engage in interorganizational relationships. Resources are broadly conceptualized as anything needed or available for the purpose of carrying out the organization's objective and interest, as well as the goals of the collectivity of members in the relationship (Alter and Hage, 1993). For example, Jarillo (1988, p.35) explains that a company that participates in a network "[...] can enjoy lower costs because it captures economies of scale (or whatever source of efficiency) from its associated firms, that other competitors cannot obtain because transaction costs forces them to integrate". Furthermore, many studies address the economic gains arising from the network level as a benefit for companies and a reason for collaboration (Waarden, 1992; Park and Ungson, 2001; Mpoyi, 2003; Wincent, 2005). The arguments above allow us to formulate the following proposition:

P1: There is a positive relationship between an organization joining a network and its gains of economies of scale.

However, in most of the cases, joining an interorganizational network also commits an organization to undertake the required investments or the cost to maintain the relationship with the other members of the network (Adler and Kwon, 2002). For Park and Ugson (2001, p. 47) "a network is able to maintain its structure and remain an efficient mechanism for inter-firm transactions, while the economic benefits of the partners outweigh the potential costs of managing the alliance". So:

P2: There is a positive relationship between an organization entering a network and required costs to maintain the network.

In organizational networks, agreements between companies may also involve the exchange, co-development and the ability to provide a wider range of products and services (Gulati, 1998; Dyer and Singh, 1998), this may allow member companies to increase their mix of products and qualify their services in ongoing segments and new segments.

Knoben et al. (2006) explain that product ranges have become more diverse and new technological breakthroughs have given rise to many new technology-product-market combinations, resulting in markets characterized by high levels of dynamics and many changes, which forced firms to specialize and subsequently led to an intensified exchange of activities between organizations. Thorgren et al. (2009) indicate that a larger network can encourage innovation by providing more opportunities, resources and complex products. The members may use a variety of different types of connections, such as knowledge or resource sharing, client referrals, or informal exchange (Popp *et al.* 2013).

On other hand, Provan and Lemaire (2012) describe how innovation within a network may lead to improving service delivery within and across organizational members. Popp *et al.* (2013)

pointed out that another usual desired outcome for human services networks is to improve the coordination and integration of services for clients. After this analysis, we are able to conclude:
P3: There is a positive relationship between an organization joining a network and its ability to provide a wider or new mix of products.
P4: There is a positive relationship between an organization entering into a network and its ability to improve and qualify services for customers.
Technologies allow organizations to expand quickly and efficiently, enabling, for example, the speeding up the workflow process, the improvement of communication in the workplace and to target a wider customer base and grow to higher levels of productivity. Kogut (1988) and Powell et al. (1996) point out that organizations also establish and expand their networks to learn about new practices and technologies.
Significant changes in technologies disrupt organizational routines and alter dependencies among exchange partners. Companies entered into networks can utilize and share new technologies for the implementation of its activities and production process (Katila and Ahuja, 2002). Moreover, based on Roger's (1995) and Wejnert's (2002) work, it is recognized that new knowledge, ideas, and technologies diffuse through networks, leading to changes in their member organizations. These arguments enable us to determine:
P5: There is a positive relationship between an organization joining a network and changes in its technological features and structures.

Another perspective concerning the content is about learning and information exchange between the members of the network. Hartley and Benington (2006) argue that there has been little analysis of what kinds of knowledge can be identified and shared among organizations in networks and how learning can be adapted. Learning and information exchange is basic to the maintenance of a collaborative relationship (Levine and White, 1961). The ability of organizations to learn means an ability to acquire information that may be used for solving a problem and decision making of an organization's work procedures.
Information exchange between organizations reflects an effort to work collaboratively (Fleishman, 1990). Somfleth (2011) argues that learning with other individuals is a form of organizations to develop their business, becoming more competitive in a highly competitive business world. Qureshi (2000) argument is that organizational learning is considered to be a potent force that drives organizational change. Based on these arguments, we formulate the following propositions:
P6: There is a positive relationship between an organization joining a network and its rate of change in organizational learning.

2.2. ORGANIZATIONAL CHANGES REGARDED TO CONTEXT

As introduced before, Pettigrew (1987) divided the organizational changes regarded to the context in inner changes and outer changes. So, we analyzed these changes separately in the sequence.

2.2.1. INNER CHANGES

As Pettigrew (1987) describes it, internal organizational context focuses on broad and relatively stable categories of organizational characteristics such as structure, culture, and power and contractual characteristics. These internal characteristics of the organization make up critical sources for success (Barney, 1991), but also may be changed if the organization decides to collaborate in an interorganizational network.
The structure of an organization indicates an enduring configuration of tasks and activities (Skivington and Daft, 1991). This structure can be influenced by knowledge management processes through shaping patterns and frequencies of communication among organizations,

stipulating locations of procedures and decision making, and affecting efficiency and effectiveness in implementing new ideas (Zheng *et al.,* 2010). So, these new relations demand adaptability and new related skills and new types of related organization structures.

We should also highlight the structure of the network that will play an important role on the member's individual set of activities and structure. The network structure refers to the relationships that exist between the organizations comprising a network that are properties of the network itself (Burt, 1992), such as the distribution of resources and the existence of control mechanisms. McPherson et al. (2006) say that management within a network context requires managing across organizations as well as within the traditional hierarchical structures of member organizations. Probable tensions that arise between the two are typically difficult to resolve but still require confronting. Structure, then, establishes some of the conditions that potentially affect the motivation of organizations to cooperate with each other (Williams, 2005). So, we can present another propositions that is part of this work:

P7: Member's organizational structure will be affected by network and the rate (degree) of individual structural changes is related to member position in the network structure.

Power is another central point in the study of interorganizational relations and some empirical research has revealed the reality of power. Ibarra (1993) investigated the relative impacts of individual attributes, formal position, and network centrality on the exercise of individual power, measured as involvement in technical and administrative innovations. Her results show that an organization's informal structure may be more critical than its formal structure when the exercise of power requires extensive boundary spanning. Another example is the study of Provan *et al*. (1980) with United Way. They found that agencies with stronger ties to the community through interested individuals and elites were less dependent on United Way, resulting in greater agency power. They also found that United Way was more generous in allocating resources to those agencies that maintained joint programs with other agencies. Thus, by developing powerful ties, an organization can reduce its dependence and get more power in it business environment.

The assumption is that some companies become more powerful because of the relational ties they constitute with other companies. The more power an organization has, the more influence it has to determine the nature of the interorganizational exchange; that is, to determine the form of the interaction and the ratio of exchange (Cook, 1977). Accordingly, it is proposed that:

P8: There is a positive relationship between an organization joining a network and in changes in the balance of power in this organization.

The collaboration between organizations in networks results also in a series of contractual and legal aspects that refer to the formal issues like the standards and rules of behavior and procedures between members of the network (Willianson, 1975; Grandori and Soda, 1995). In this sense, the governance of networks also plays an important role. Provan and Kenis (2008, p. 230) describe network governance as "the use of institutions and structures of authority and collaboration to allocate resources and to coordinate and control joint action across the network as a whole". This, however, decreases individual organizational flexibility and autonomy.

Collaboration with another organization is seen by many as a process of destruction of organizational autonomy (Chen, 2010). In any alliance or collaboration, the partners inevitably deal with tensions about organizational autonomy and differential power relationships (Bryson *et al*., 2006). When organizations are involved in activities that cross any network border, organizations must balance the dualism of individual action and collective concerns (Chen, 2010). In an effective partnership, a member must give 'day to day' control over the activities of his organization in collaborating for gains of cooperation (Cummings, 1984). These arguments imply the following proposition:

P9: The autonomy of a member organization will be reduced by joining a network.

Organizational culture may be characterized by shared assumptions, values, and norms (Schein, 1985). Leading with this aspect into network may be challenging because member organizations have different ways of doing things (cultures) and/or institutional logics (e.g., approach to decision making, ways of providing services, technical procedures), which can make it challenging to agree on essential structures, processes and outcomes (Bryson et al., 2006; Hoberecht et al., 2011).

According Provan, Fish and Sydow (2007), a more specific group of organizations within the network usually has a more central role in the creation of standards and practices of the network, reflecting the culture and values of the member organizations. In Ovseiko and Buchan (2012) the authors' demonstrate that an alignment between organizational culture positively influences both individual and collective success, and the success of a network is highly depend on an organization's ability to change culturally and adapt to the needs that arise in the network. Browning et al. (1995) perform a study with semiconductor firms and found that companies' cultural difference hindered productive communication among members in the network.

Individual organizational culture also may influence and modify another organization's culture. Damanpour *et al*. (2012) argues that organizational culture has a great influence in interorganizational networks, because it emphasizes individual behavior, influencing practices and interactions between members of the network and new ways of act. Damanpour *et al*. (2012) constitute the sense-making mechanism where organizational members render meanings to new data and information, share alternative meanings, restructure shared new meanings, and decide on courses of actions based on their new understandings. The whole process is conditioned by organizational culture, because the values and behavioral norms held by organizational members serve as a filter in the sense making and meaning construction processes (De Long and Fahey, 2000). Having said that, we propose:

P10: Network members face changes in their organizational culture when they join a network.

2.2.2. OUTER CHANGES

The collaboration of organizations by interorganizational networks may also result in changes outside of the organizations and one of these changes may occur in the political environment. Fukuyama (1995) explains that the ability to join a network depends on the degree to which companies share norms and political actions, and are able to subordinate individual interests to the larger group. Provan and Lemaire (2012) describe that one advantage of interorganizational networks is their ability to exert more pressure due to greater political clout and community reach. Tsasis (2004) found in his studies of collaborative relationships that the extent to which the network can represent, empower and mobilize its community creates political strength, what may support the organization's goals and can also increase their countervailing power and thus enhance collaborative efforts. Pesäma (2007) mentions that key stakeholders typically expect that a firm prove they have political support, essential resources and financial stability, which in turn, can be used to enhance their involvement in interorganizational relationships through legitimate activities. Accordingly, it is proposed that:

P11: Member organizations will have better political support and representation in market by joining a network.

The development in any interorganizational network, in view of Håkansson and Snehota (1995), can also be influenced by exogenous factors such as changes in general economic conditions, like new technological solutions developed by other companies, the currency variation and other types of change. They explain that such changes occur, however, when the parameters are combined with endogenous change. Thus, these aspects will not influence all actors in a uniform manner, but will influence the ability of each company to develop its needs.

Dunlop and Healy (1949) recognized the importance of external conditions as sources of collaboration power. In his later theoretical work on industrial relations systems, Dunlop (1958) described the environment as consisting of three dimensions: (1) the technological context of the parties, (2) the economic context, and (3) the locus of power in a larger society. He explains in his framework that the economic context refers to the market conditions or economic resource base available to agents. Therefore, it is proposed that the economic context of the agents are relevant sources or bases of power in the environment that affect bargaining of the parties in a relationship. In addition, the interactions and procedures in networks reduce the economic and social environment uncertainty (Pyka and Küppers, 2002). In fact, cooperation diminishes the need to assess risks such as economic pitfalls (Axelrod, 1984), thus:

P12: Member organizations will have better economic base and reduce economic uncertainty by joining a network.

Another perspective related to the outer context is the social environment. Relationships, or linkages, among a group of individuals are commonly referred to as a social network, and the network as a whole is the pattern of linkages among the individual organizations (Milward and Provan, 2006). Organizations can be "viewed as actors embedded in webs of social relations" (Gulati et al., 2011, p. 208), and their economic behavior will be constrained by these social structures built over the time (Granovetter, 1985).

The emerging theory and evidence on networks suggests the benefits of considering the relations of an organization's network as one factor influencing its capacity for adaptation. The breadth and heterogeneity of an organization's social ties ("whom it knows") may determine its access to different sorts of information, thus affecting its ability to identify and respond to environmental threat (Kraatz, 1998). This means that as the number of its network ties adopting some practice increases, the organization receives an increasing quantity of social information or influence, which subsequently increases its chances of adopting that same practice (Haunschild, 1993; Rogers, 1995). Therefore, these theorical arguments allow us to formulate the following proposition:

P13: The greater the degree of organization social relations, the greater its ability to recognize and respond to environmental necessities.

Based on the perspective of social networks, Gulati (1998) justifies that the formation of networks can be motivated by the improvement in strategic behavior, which leads firms to improve their competitive behavior. Huber et al. (1993) address competitive environment as a determinant variable of organizational change. Partnerships take their forms in an attempt to reduce the vulnerability of companies which recognize their limitations in acting alone (Senge et al., 2007) and to increase bargaining power and firm market position of these companies relative to its competitors. Based on a collaborative power perspective, bargaining power can be seen as the "bargainer's ability to favorably change the 'bargaining set', to win accommodations from the other party, and to influence the outcome of a negotiation" (Yan and Gray, 1994, p. 1480). In the context of bargaining, Chamberlain and Kuhn (1965) discussed the concept of union bargaining power suggesting that organizations in interorganizational relations can be viewed as stronger units of power. In this way, the gain of bargaining power may be viewed as an essential motivating force that ultimately brings organizations to act together and stimulate the collaboration trough networks.

Interorganizational relationships are therefore important for the organization and its competitive environment because they not only influence the success of cooperative strategies as well they also tend to create economic imbalances. As a result, firms involved in exchanges have loyalties to each other even if it means the loss of short term business opportunities (Pesämaa, Hair & Örtqvist, 2007). This leads to the generation of following proposition:

P14: An organization will increase its competitiveness and bargaining power by joining a network.

2.3. ORGANIZATIONAL CHANGES REGARDED TO PROCESS

Håkansson and Snehota (1995) state that network relationships are developed from interaction processes and all members may influence others to adjust their ways to achieve the activities and objectives proposed. They argue that substantial changes are initiated and carried out as companies interact. Actors promote change, as they always have both reasons and opportunities to make changes in the structure of the network. Changes aimed to stabilize or to change the networks are always a matter of two or more actors working together with or against others. Interactions thus lead to joint actions among the actors that shape the structure of organizational networks (Håkansson and Snehota, 1995).

However, less studied is viewing collaboration as dynamic processes in which partners increase the extent of shared information, pooled resources, and mutual respect (Chen, 2008). Popp *et al.* (2013) emphasize that, to date, there has been more emphasis on the evaluation of network structure than processes. They explain that both are necessary, but it is important to design evaluations that are able to capture what we know about the kinds of processes that lead to desired outcomes. Exploring how results are achieved provides the network with important information on the health of the network itself, including an assessment of the relationships and whether the desired culture of the network is being implemented and maintained (Popp *et al.* 2013). Exploring which individual organizational processes and activities are influenced and changed by the interactions between members would also help to understand the final results. Gilchrist (2006) explains that a focus on processes as well as the impact of networks has the potential to make them more fit for purpose. In networks, if a company seeks efforts to stabilize or change a situation or attempts some outcome, its efforts will depend on how other companies react and adjust to the new process. So there is some sort of logic of collective network that makes possible the interaction and is also the ground for changes (Håkansson and Snehota, 1995).

Once an interorganizational network is formed, it needs to be designed to determine which activities or tasks must be completed for the network to achieve the proposed objectives. Management processes needs to be outlined and the commitment of the members is fundamental. In the early phase of network development, there is usually shared governance type, where all participants contribute to the management tasks and leadership in the network (Milward and Provan, 2006; Provan and Kenis 2008). Also is usual one organization (leader) or a Network Administrative Organization (NAO) that assumes the role of activities management mobilizing others to develop the outlined actions and processes (Provan and Kenis 2008). Independent of governance type, it is clearly that factors such as network size and the degrees of trust among members influence which form is going to be most appropriate, and ensuring that managers make a conscious choice is critical for matching the best governance form to the context (Milward and Provan, 2006; Provan and Kenis 2008).

Effective management and control of interorganizational procedures and practices it’s required to the success of strategic alliances (Inkpen and Ross, 2001; Cohen and Mankin, 2002) and need the alignment of all members. This interaction between network members and new management processes characteristics may modify the member’s organization individual management form. Problems such as individual identity, cultural conflict and practices, and unstructured objectives may affect the performance of alliances (Browning et al., 1995). Rethemeyer and Hatmaker (2008) include use of “social tools” to design processes toward some set of goals. Management style and leadership is a key element in the success of strategic alliance (Browning et al., 1995; Bryson et al. 2006). Therefore, it is possible to define one more proposition that is part of this study:

P15: Effective management processes outlined in the network has a positive effect on alignment and adaptation of individual member organization's management processes.

Aligned with the management process is the concept of the decision making process. How decision making processes are accomplished in the network influence how the members react and commit to this decision. A participatory decision making style may foster a sense of shared purpose that stimulates the commitment of members. Berry *et al.* (2004) stresses the role of network managers and how they go about developing good relationships, and how decisions are made within a network would encourage commitment and goal consensus. This conceptualization of joint decision making also corresponds to organizational behavior scholars' definition of problem solving that involves the emphasis on common goals, openness in information sharing, and a desire to reach a solution compatible with all interests (Gordon, 1993). Joint decision making refers to the extent to which partners engage jointly in service planning and goal setting (Chen, 2008).

When discussing decision making, the notion of power takes an important place. (Chen, 2008) believes that although a completely equal distribution of power in interorganizational settings is unrealistic, a more shared, equitable power allocation among partners may be one of the desirable outcomes of collaboration. This builds on the work of Gray (2004), who says that the power dynamics generally shift in true collaborative relationships from the kind of unequal distribution of power often associated with elitist decision making to more participative, equally shared access to decision making processes. This power influences and joint decisions may influence and change member organization's decision making process. Thus:

P16: The greater participation of member organizations in network decision making processes, the greater the changes in individual organization decision making processes.

The learning process exercises another important function in collaborative networks. The diffusion of information and how it forms the knowledge base of an organization is affected by the learning processes that encompass the organization's efforts and collective experience (Qureshi, 2000). Knight and Pye (2005) see learning in networks as containing multiple, complex and often iterative links between contextual factors and processes, and various learning outcomes.

Flóren and Tell (2004) describe how learning in small organizational network depends on the characteristics of members configuring the network. Learning process requires much reciprocity and interaction between firms, as well as receptive and confrontational capacity, network transparency and trust. Flóren and Tell (2004) explain that trust results in honest giving and taking, openness about how others can contribute, honest sharing among members and necessary knowledge of when to confront members. Zollo et al. (2002) demonstrated that knowledge gained thorough collaborative work between partners helped them to develop a refined understanding of each other's culture, management style, capabilities, and weaknesses. Koka and Prescott (2002) empirically showed that the nature of information exchange (information volume and information diversity) between firms in strategic alliances was significantly and positively related to firm performance. Some of these integrative attributes of learning are also emphasized by other authors, like Stoyko (2001), Knight (2002), Engeström and Kerosuo (2007), Phelps *et al*. (2012). In summary, all learning processes require the interaction of the members in a new organizational way, what allow us to develop the following proposition:

P17: The greater interactions and information sharing between members inside the network, the greater changes in member organization's learning processes.

Another key process in networks is innovation. Innovation is an important function of networks because it is critical to addressing complex problems (Provan and Huang, 2012). Usually the more internal capacity the network members has to learn, the more likely it is to create new information and knowledge that will allow it to innovate, in other words, to make ongoing adjustments in resource allocation in order to effectively build new things (Eisenhardt and Martin, 2000). Reichstein and Salter (2006) define innovation as the introduction of new elements in the production, provision of a service or operations of an organization with the aim of reducing costs and/or increase the quality.

Joining an interorganizational has become a usual action of companies aiming to improve their innovative performance process. Rajala and Westerlund (2010) explain that there is a direct relationship between innovation process and collaborative business networking. Vickers and North (2000) and Fukugawa (2006) underline the cooperative (and competitive) logic in networks for member organizations. They show that the network is a place where the companies can harness learning and resource exchange for development, innovation, and strategic renewal. Faems et al. (2005) emphasize that networks, specially the large ones, also give member firms opportunities for varied partner portfolios, which has been found to positively influence innovative performance. Moreover, with more network members, it is also likely that there is a higher degree of supplementary knowledge, which also has been found to positively influence innovative performance (Knudsen, 2007, Thorgren *et al.* 2009). It is observed that the functions of knowledge and information exchange, learning and innovation are intrinsically connected, where learning process contribute to innovation process. Therefore:

P18: Interorganizational learning in networks positively affects member organization's innovation processes.

3. THE RESULTING THEORICAL FRAMEWORK AND FINAL CONSIDERATIONS

Based on Willianson (1996) assumptions, interorganizational networks are hybrid form of governance that compared with the market sacrifices incentives in favor of superior coordination among the parts, and compared with the hierarchy, sacrifices cooperativeness in favor of greater incentive intensity. Interorganizational networks are assumed to be flexible enough to be constituted and developed at little cost. Thus, this form can be used when transactions cannot easily be conducted through market contracts but the transaction costs involved are not so high as to mandate internal organization within a hierarchy (Willianson, 1975). This gives an idea that an organization can deal with emerging environmental problems by building hybrid structures and employing various strategies pursuing advantages like that we highlight in the beginning of this paper, even when there is a resource gap between the organizations (Pfeffer and Salancik, 1978).

However, in other side, collaborating in interorganizational networks is something not easy to accomplish. Organizational theories based on the adaptation perspective have neglected the obstacles that organizations face when attempting to a new governance form, like networks. Based on the topics we outlined in this work, we have constituted a general framework of changes that may happen when organizations join a network. This framework is illustrated in Figure 1.

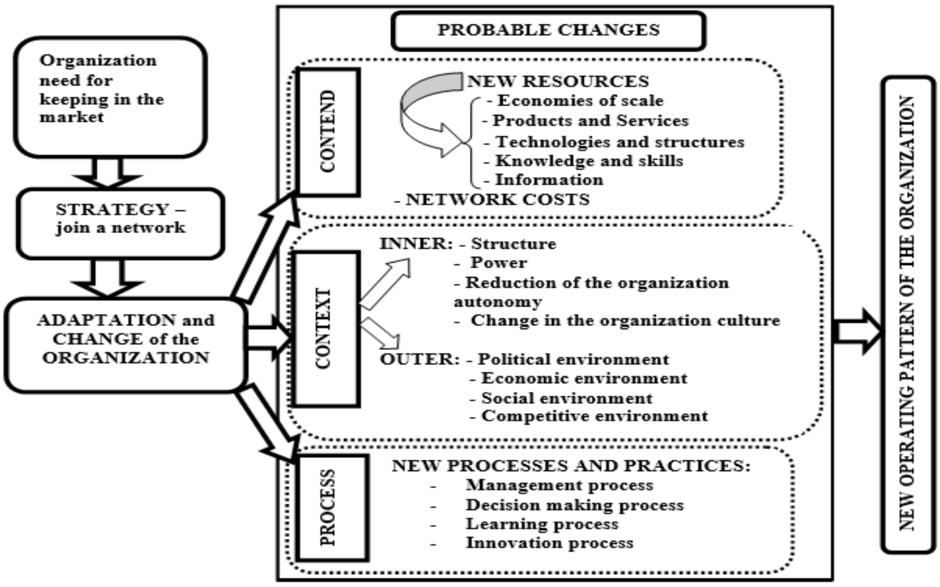

Figure 1: Organizational change framework
Source: Elaborated by the authors

The "contend" approach summarized in Figure 1 provides a good explanation of the factors that influence the propensity of organizations to form such relationships. Gains with economies of scale, new products and qualified services, technologies, knowledge and information sharing are referenced by many scholars as advantages and benefits of interorganizational networks. In joining an interorganizational network, member organizations also develop relation specific assets, such as institutionalized routines and processes, over time. The processes showed in Figure 1 are suggested as a mechanism through which the interorganizational network leads to competitive advantage for members.

Furthermore, scholars of a network perspective argue that significant elements of an organization's environment are represented by the other organizations with which it must interact, including key suppliers, customers, regulatory agencies, and organizations with similar services and products (Nohria, 1992). An organization's external environment can be viewed as the interorganizational field in which it is embedded (Kim, 2006). Based on the assumption that organizations seek to catch up with constantly environment's threats, we explain outer changes as one way of organizations aligning and improving its positions in distinct environments by joining a network. This plays a significant role in shaping organizations activities and performance.

However the assumptions discussed in last two paragraphs sometimes overlooks the difficulty the member organizations may face regarding the cost to maintain the network and features described as inner changes. Costs are a critical factor, since the basic assumption for companies entering a network is that the gains from cooperation are higher than the costs to maintain the collaboration. Moreover, changes in organization structure, rate of power, autonomy and culture may impact significantly in organization's routines and, consequently, on their performance.

The framework formulated above also has implications for the effects of change on organizational performance. For example, when an organization faces market uncertainty and needs to catch up with new technologies, entering interorganizational network and forming new ties with new partners who have marketing and technological capabilities helps it improve its performance (Nohria and Garcia Pont, 1991). However, Kim (2006) stresses that organizational change results in improved performance only when the organization moves to a more attractive destination state and is able to absorb the costs of undertaking the change.

In summary, there are required multiple decisions, activities and processes when establishing a network. The care in planning, designing, organizing and controlling the initial set of activities of a network will influence its ongoing development. Consideration must also be given to context, balancing development of network structures and processes, and setting conditions upon which network members can operate and accomplish proposed tasks.

REFERENCES:

ADLER, P., KWON, W. (2002) **Social capital: Prospects for a new concept.** *Academy of Management Review*, *23*(1): 15-22.
ALDRICH, E.H. (1999) **Organizations Evolving**. London: Sage.
AXELROD, R. (1984) **The evolution of cooperation**, USA: Basic books.
ALTER, C., HAGE, J. (1993) **Organizations working together**. Newbury Park, CA: Sage Publications.
ARGYRIS C., SCHÖN, D. (1998) **Organizational learning**. Reading, MA: Addison-Wesley.
BALMANN, A., ODENING, M., WEIKARD, H-P., BRANDES, W. (1996) **Path-Dependence without Increasing Returns to Scale and Network Externalities.** *Journal of Economic Behavior and Organization*, 29: 159 – 172.
BARNETT, W., CARROLL, G. R. (1995) **Modeling internal organizational change.** *Annual Review of Sociology*, *21*: 217-36.
BARNEY J. (1991) **Firm resources and sustained competitive advantage. *Journal of management***, 17(1): 99-120.
BECKMAN, C., HAUNSCHILD, P., PHILLIPS, D. (2004) **Friends or Strangers? Firm-specific uncertainty, market uncertainty, and network partner selection.** *Organization Science*, 15(3): 259-275.
BERRY, F. S., BROWER, R. S., CHOI, S. O., XINFANG GOA, W., JANG, H., KWON, M., WORD, J. (2004) **Three traditions of network research: What the public management research agenda can learn from other research communities.** *Public Administration Review, 64*(5): 539-552.
BRYSON, J. M.; CROSBY, B. C.; STONE, M. M. (2006) **The design and implementation of cross-sector collaborations: prepositions from the literature.** *Public Administration Review, 66* (Special issue): 44–55.
BURT, R.S. (1992) **Structural holes: the social structures of competition.** England: Harvard University Press.
CHAMBERLAIN, N. W., KUHN, J. W. (1965) **Collective Bargaining,** 2nd ed. New York: McGraw-Hill.
CHASSAGNON, V. (2013) **Consummate cooperation in the network-firm: Theoretical insights and empirical findings**. *European Management Journal*.
CHEN, B. (2010) **Antecedents or Processes? Determinants of Perceived Effectiveness of Interorganizational Collaborations for Public Service Delivery.** *International Public Management Journal*, 13(4): 381-407.
CHEN, B. (2008) **Assessing inter-organizational networks for public service delivery: A process-perceived effectiveness framework.** *Public Performance & Management Review, 31*(3): 348.
CORSTEN, D., GRUEN, T., PEYINGAUS, M. (2011) **The effects of supplier-to-buyer identification on operational performance – an empirical investigation of inter-organizational identification in automotive relationships.** *Journal of Operations Management*, *29*: 549-560.
CUMMINGS, T. (1984) **Transorganizational Development. *Research in Organizational Behavior,*** 6: 367–422.

DAMANPOUR, F., DEVECE, C., CHEN, C.C., POTHUKUCHI, V. (2012) **Organizational culture and partner interaction in the management of international joint ventures in India.** *Asia Pacific Journal of Management,* 29(2):453-478.
DE LONG, D.W., FAHEY, L (2000) **Diagnosing cultural barriers to knowledge management.** *The Academy of Management Executive,* 14(4):113–27.
DEGBEY, W., PELTO, E. (2013) **Cross-border M&A as a trigger for network change in the Russian bakery industry.** *Journal of Business & Industrial Marketing*, *28*(3): 189-189.
DIMAGGIO, P. J.; POWELL, W. W. (1983) **Institutional isomorphism and collective rationality in organizational fields**. *American Sociology Review*, *48*: 147 - 160.
DUNLOP, J. T. (1958) **Industrial Relation Systems.** New York: Holt.
DUNLOP, J.T., HEALY, J. (1949) **Collective Bargaining.** Homewood, Ill.: Irwin.
DYER, H. J.; SINGH, H. H. (1998) **The relational view: cooperative strategy and sources of interorganizational competitive advantage**. *Academy of Management Review*, *23*(4): 660–679.
EISENHARDT, K. M., MARTIN, J. A. (2000) **Dynamic capabilities: What are they?** *Strategic Management Journal, (21)*10-11: 1105-1121.
ENGESTRÖM, Y., KEROSUO, H. (2007) **From workplace learning to inter-organizational learning and back: the contribution of activity theory.** *Journal of Workplace Learning*, *19*(6): 336-342. FAEMS, D., VAN LOOY, B., DEBACKERE, K. (2005) **Interorganizational collaboration and innovation: toward a portfolio approach**. *Journal of Product Innovation Management*, *22* (3): 238–250.
FLEISHMAN, J.A. (1990) **Research Issues In service Integration and coordination. In: AHCPR Conference Proceedings, Community-Based Care of Persons with AIDS: Developing a Research Agenda.** Washington, DC: Agency for Health Care Policy and Research. 1990.
FLORÉN, H.; TELL, J. (2004) **The emergent prerequisites of managerial learning in small firms networks.** *Leadership & Organization Development Journal*, *25*: 292-307.
FUKUGAWA, N. (2006) **Determining factors in innovation of small firm networks: a case of cross industry groups in Japan.** *Small Business Economics, 27* (2), 181–193.
FUKUYAMA, F. (1995) **Trust: Social Virtues and the Creation of Prosperity.** NY: Free Press.
GALASKIEWICZ, J. (1985) **Interorganizational Relations.** *Annual Review of Sociology*, *11*: 281–304.
GILCHRIST, A. (2006) **Maintaining relationships is critical in network's success.** *Healthcare Papers, 7*(2): 28-31.
GRANDORI, A., SODA, G. (1995) **Inter-firm Network: antecedents, mechanisms and forms**. *Organization Studies*,16(2): 183-214.
GRANOVETTER, M. (1985) **Economic action and social structure: the problem of Embeddedness.** *American Journal of Sociology*, 91(3).
GRAY, B. (2004) **Strong opposition: Frame-based resistance to collaboration.** *Journal of Community & Applied Social Psychology, 14*(3): 166-176.
GRAY, B., WOOD, D. J. (1991) **Collaborative Alliances: Moving from Practice to Theory.** *Journal of Applied Behavioral Science*, *27*(2): 3 - 22.
GULATI, R. (1998) **Alliances and Networks**. *Strategic Management Journal*, *19*:293 - 317.
GULATI, R., LAVIE, D., MADHAVAN, R. (2011) **How do networks matter? The performance effects of interorganizational networks.** *Research in organizational behavior, 31*: 207.
HAVILA, V., SALMI, A. (2000) **Spread of change in business networks: an empirical study of mergers and acquisitions in the graphic industry.** *Journal of Strategic Marketing*, *8*: 105-119.

HÅKANSSON, H., FORD, D., GADDE, L-E., SNEHOTA, I., WALUSZEWSKI, A. (2009). **Business in networks.** Chichester: Wiley & Sons.
HÅKANSSON, H.; SNEHOTA, I. (1995) **Developing Relationships in Business Networks.** London: Routledge.
HARTLEY, J., BENINGTON, J. (2006) **Copy and paste, or graft and transplant? Knowledge sharing through inter-organizational networks.** *Public Money & Management, 26*(2): 101.
HAUNSCHILD, P. R. (1993) **Interorganizational imitation: The impact of interlocks on corporate acquisition activity.** *Administrative Science Quarterly*, 38: 564-592.
HIBBERT, P.; HUXHAM, C.; SMITH RING, P. (2008) **Managing collaborative inter-organizational relations.** In: Cropper, S.; Ebers, M.; Huxham, C.; Smith Ring, P. *The Oxford handbook of inter-organizational relations.* Oxford: Oxford University Press.
HOBERECHT, S., JOSEPH, B., SPENCER, J., SOUTHERN, N. (2011) **Inter-organizational networks: An emerging paradigm of whole systems change.** *OD Practitioner, 43*(4), 23-27.
HUBER, G. P., SUTCLIFFE, K.,MILLER, C.C., GLICK, W.H. (1993) **Understanding and predicting organizational change.** In: Huber, G. & Glick, W. H. (eds.). Organizational Change and Redesign. New York: Oxford University Press.
JARILLO, J. C. (1998) **On strategic networks**. *Strategic Management Journal*, *9*(1): 31-41.
KATILA, R., AHUJA, G. (2002) **Something old, something new: A longitudinal study of search behavior and new product introduction.** *Academy of Management Journal*, *45*(6): 1183-1194.
KIM, T.-Y., HONGSEOK O., AND SWAMINATHAN, A. (2006) **Framing Interorganizational Network Change: A Network Inertia Perspective.** *Academy of Management Review*, *31*(3): 704–720.
KNIGHT, L. (2002) **Network learning: Exploring learning by interorganizational networks.** *Human Relations, 55*(4): 427.
KNIGHT, L., PYE, A. (2005) Network learning: **An empirically-derived model of learning by groups of organizations.** *Human Relations*, *58*(3): 369-392.
KNUDSEN, M.P. (2007) **The relative importance of interfirm relationships and knowledge transfer for new product development success.** *Journal of Product Innovation Management, 24*(2): 117–138.
KOGUT, B. (1988) **Joint-Ventures: theoretical and empirical perspectives.** *Strategic Management Journal*, *9*(4):.312–332.
KRAATZ, M. S. (1998) **Learning by Association? Interorganizational Networks and Adaptation to Environmental Change.** *The Academy of Management Journal, 41*(6): 621-643.
LAMB, C.; HAIR, J. F.; MCDANIEL, **C. *Marketing*.** 9. Ed. Cincinnati: Southwestern Publishing, 2008.
LARSON, R., BENGTSSON, L.; HENRIKSSON, K.; SPARKS, J. (1998) **The interorganizational learning dilema: collective knowledge development in strategic alliances.** *Organizations Science.* (Special Issue). 9(3): 285-305.
LEONARDI, P. M. (2013) **When does technology use enable network change in organizations?** A comparative study of feature use and shared affordances. *MIS Quarterly*, *37*(3): 749-775.
LEVINE, S., WHITE, P. (1961) **Exchange as a conceptual framework for the study on interorganizational relationships.** *Administrative Science Quarterly*, *5*: 583-601.
MARIOTTI, F., DELBRIDGE, R. (2012) **Overcoming network overload and redundancy in interorganizational networks: The role of potential and latent ties.** *Organization Science*, *23*(2): 511-528.

MCPHERSON, C, POPP, J, LINDSTROM, R. (2006) **Reexamining the paradox of structure: A child health network perspective.** *Healthcare Papers, 7*(2): 46-52.
MILWARD, H. B., PROVAN, K. G. (2006) **A manager's guide to choosing and using collaborative networks: IBM center for the business of government.** IBM Report on the Business of Government.
MPOYI, R. (2003) **The impact of industry characteristics on vertical integration strategies.** *International Academy of Business and Economics Annual Meeting*, Las Vegas, NV.
MORRISSEY, J. P., JOHNSEN, M. C., CALLOWAY, M. O. (1997) **Evaluating performance and change in mental health systems serving children and youth: An interorganizational network approach.** *Journal of Mental Health Administration*, *24*(1): 4–22.
NADLER, D.A.; SHAW, R.B.; WALTON, A.E. (1994) ***Discontinuous Change: leading organizational transformation.*** San Francisco: The Jossey- Management Series Bass.
NOHRIA, N. (1992) **Is a network perspective a useful way of studying organizations?** In N.Nohria, R.G. Eccles (Eds.), *Network and Organizations: Structure, Form and Action.* Boston, MA: Havard Business School Press.
OVSEIKO, P. V., BUCHAN, A. M. (2012) **Organizational Culture in an Academic Health Center: an Exploratory Study Using a Competing Values Framework.** ***Academic Medicine***, 87(6): 709-718.
PARMIGIANI, A., RIVERA-SANTOS, M. (2011**) Clearing a Path Through the Forest: A Meta- Review of Interorganizational Relationships.** *Journal of Management*, *37*(4): 1108-1136.
PARK, S. H.; UNGSON, G. R. (2001) **Interfirm rivalry and managerial complexity: a conceptual framework of alliance failure.** *Organization Science*, *12*(1): 37-53.
PESÄMAA, O. (2007) ***Development of relationships in interorganizational networks:*** **studies in the tourism and construction industries.** Doctor's thesis, Luleå University of Technology, Strömsund, Sweden.
PETTIGREW, A. (1987) **Context and action in transformation of the firm.** *Journal of Management Studies*, *24*(6): 649-670.
PFEFFER, J.; SALANCIK, G. (1978) ***The external control of organizations: a resource dependence perspective.*** New York: Harper & Row.
PHELPS, C., HEIDL, R., WADHWA, A. (2012) **Knowledge, networks, and knowledge networks: A review and research agenda.** *Journal of Management*, *38*: 1115–1166.
POPP, J.; MACKEAN, G.; CASEBEER, A.; MILWARD, H. B.; LINDSTROM, R. (2013) *Inter-organizational networks: A critical review of the literature to inform practice.* Available in: http://health-leadership-research.royalroads.ca/sites/default/files/Inter-organizational%20networks%20A%20critical%20review%20of%20the%20literature%20to%20inform%20practice.pdf Acessed on: 02/27/2014
POWELL, W.W., BRANTLEY, P. (1996) **Magic Bullets and Patent Wars: New Product Development in the Biotechnology Industry.** In Nishiguchi T. *Managing Product Development*, New York: Oxford University Press.
PROVAN, K., BEYER J. M., KRUYTBOSCH C. (1980) **Environmental Linkages and Power in Resource-Dependence Relations Between Organizations.** *Administrative Science Quarterly*, 25:200-55**.**
PROVAN, K. G., FISH, A., SYDOW, J. (2007) **Interorganizational networks at the network level: A review of the empirical literature on whole networks.** *Journal of Management, 33*(3): 479.
PROVAN, K., KENIS, P. (2008) **Modes of network governance: Structure, management, and effectiveness.** *Journal of Public Administration Research and Theory, 18*(2): 229.

PROVAN, K. G., LEMAIRE, R. H. (2012) **Core concepts and key ideas for understanding public sector organizational networks: Using research to inform scholarship and practice.** *Public Administration Review, 72*(5): 638-648.
PROVAN, K. G., HUANG, K. (2012) **Resource tangibility and the evolution of a publicly funded health and human services network.** *Public Administration Review, 72*(3): 366-375.
PYKA, A.; KÜPPERS, G. (2002) ***Innovation networks.*** Edward Elgar Publishing Limited.
QURESHI, S. (2000) Organisational change through collaborative learning in a network form. *Group Decision and Negotiation*, *9:*129 – 147.
REICHSTEIN, T., SALTER, A. J. (2006) **Investigating the sources of process innovation among UK manufacturing firms.** *Industrial and Corporate Change, 15*(4): 653-682.
RETHEMEYER, R. K., HATMAKER, D. M. (2008) **Network management reconsidered: An inquiry into management of network structures in public sector service provision.** *Journal of Public Administration Research and Theory, 18*(4): 617-646.
RING, P.S., VAN DE VEN , A.H. (1994**) Developmental processes of cooperative interorganizational relationships.** *Academy of Management Review, 19* (1): 90-118.
ROGERS, E. (1995) **Diffusion of innovations**. New York: Free Press. SADOWSKI, B.; DUYSTERS, G. (2008) **Strategic technology alliance termination: an empirical investigation.** *Journal of Engineering and Technology Management*, *25:* 305 – 320.
SCHEIN, E.H. **Organizational culture and leadership: a dynamic view.** San Francisco, CA: Jossey-Bass; 1985.SENGE, P.M., LICHTENSTEIN, B.B., KAEUFER, K., BRADBURY, H, CARROLL, J.S. (2007) **Collaborating for systemic change**. Sloan Management Review, 48(2): 44-53.
SKIVINGTON, J.E., DAFT, R.L. (1991) **A study of organizational framework and process modalities for the implementation of business-level strategic decisions.** *Journal of Management Studies,* 28 (1):45–68.
SOMFLETH, N. (2011) **Stronger together: small and medium sized tour operators in a horizontal network.** 2011, Master thesis, Suécia, University of Lund, Campus Helsingborg.
STOYKO, P. (2001) **The learning journey, a guide to achieving excellence.** Ottawa, ONT: Canadian Centre for Management Development Roundtable on the Learning Organization.
THORGREN, S., WINCENT, J., ÖRTQVIST, D. (2009) Designing interorganizational networks for innovation: An empirical examination of network configuration, formation and governance. **Journal of Engineering and Technology Management***, 26*(3), 148-166.
TSASIS. P. (2004) **Collaborative and competitive relationships within an integrates public sector network. Philosophy doctor thesis.** Graduate Department of Health Policy, Management and Evaluation, University of Toronto, Canada.
VASUDEVA, G.; ZAHEER, A.; HERNANDEZ, E. (2013) **The Embeddedness of Networks: Institutions, Structural Holes, and Innovativeness in the Fuel Cell Industry.** *Organization Science, 24*(3): May–June, 645 - 663.
VICKERS, I., NORTH, D. (2000) **Regional technology initiatives: some insights from the English regions.** *European Planning Studies, 8*(3): 301–318.
WAARDEN, F. V. (1992) **Emergence and development of business interest associations: an example from The Netherlands.** *Organization Studies*, *13*(4): 521-561.
WEJNERT, B. (2002) **Integrating models of diffusion of innovations: A conceptual framework.** *Annual Review of Sociology*, *28*: 297-326.
WENDEL, M. L., PROCHASKA, J. D., CLARK, H. R., SACKETT, S., PERKINS, K. (2010) **Interorganizational network changes among health organizations in the Brazos Valley, Texas.** *The Journal of Primary Prevention, 31*(1-2), 59-68.
WESTERLUND, M., RAJALA, R. (2010) **Learning and innovation in interorganizational network collaboration.** *Journal of Business and Industrial Marketing*, *25*(6): 435-442.

WILDEMAN, L. (1998). **Alliance and networks: The next generation.** *International Journal of Technology Management, 15***:** 96-108.
WILLIAMS, T. (2005) **Cooperation by design: structure and cooperation in interorganizational networks.** *Journal of Business Research*, 58: 223– 231.
WILLIANSON, O. E. (1975) **Market and hierarchies: analysis and antitrust implication***s*. New York: Free Press.
WINCENT, J. (2005) **Does Size Matter? A Study of Firm Behavior and Outcomes in Strategic SME Networks.** *Journal of Small Business and Enterprise Development*, *12*(3): 437-453.
YAN, A., GRAY, B. (1994) **Bargaining Power, Management Control, and Performance in United States-China Joint Ventures: A Comparative Case Study.** *Academy of Management Journal,* 37(6): 1478-1517.
ZHENG, W., YANG, B., MCLEAN, G.N. (2010) **Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management.***Journal of Business Research,* 63: 763–771.