PRACTICES AND STRUCTURES OF AN INTER-ORGANIZATIONAL COLLABORATION

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Abstract:
Redesigning business processes from the perspective of collaborative inter-organizational networks, various modeling techniques and store information from communities of practice in data warehouses, are aimed not only to manage the knowledge of a business process, but also, to manage the knowledge created and applied (innovation) in the process. My approach to modeling derives primarily from an intention to integrate the organizational management process in order to produce an innovative result, a higher one compared with a mechanistic management system based on the amount of organizational knowledge.

Key words: *inter-organizational, Business Intelligence, network, creation*

JEL classification: *O31*

Background

Research directions in the development stages of innovation and innovative processes have evolved over time, from an innovative perspective encroached within an activity carried out by an entrepreneur as a entity that creates possible and many innovative combinations, to a vision of design innovation in processes and innovative structures larger expandable, ie, within the internal organizational environment, as a generated and stimulated response by market demand. Now, innovation is explored from a design perspective on networks and systems of organizations.

The first two approaches are regarded innovation as a result of a linear process, performed by the entrepreneur, or the company, applying science in a logical and structured approach and applying causal factors in workplace.

Linear innovations ignore feedback loops (innovation process is not induced and is not necessarily result in linear chains of activity but, rather, is a recursive process), and on the other hand, innovation may have unforeseen implications initially, and be adopted in industries in ways difficult to predict (Kline and Rosenberg, 1986).

Von Hippel (1988), argued that the source of innovation consists in the relationships between manufacturing companies and their suppliers or, in particular, in the relations with their customers.

The researchers move to the relations between organizations the field of analysis for innovative processes, field of analysis often designated by the network metaphor (interdependencies between organizations represented by informal ties connecting the various entities and relationships and which intersecting formal relations existing in organizations).

Networks are composed of linked or related entities and connecting nodes. They are becoming more complex by the combination of various features and network nodes include resources, knowledge and various arrangements (interconnected networks). Businesses, organizations are no longer viewed in isolation.

Conceptualizing networks is investigated in light of the influence factors and variables that lead to the formation and support them, the researchers discussed the

cultural context according to account the different forms of perception (in a network actors have different perceptions). Inter-organizational networks have grown considerably in importance in recent decades. Networks contribute significantly to potentiation innovation capacities of firms by exposing them to new sources of ideas, allowing quick access to resources, and the possibility of knowledge transfer. Formal networking can also allow a division of innovative labor, which makes it possible for companies to achieve objectives that could not pursue them individually (Powell and Grodal, 2005).

Milies et. al. (2005) make in relation to research and structure a scenario in which innovation and economic development are dependent on "the power of collaboration. " In this research agreement, collaboration is defined as a process in which two or more parties working together to achieve common benefits of collaboration (Miles et. al. 2006).

In collaborative structures, either both parties accept responsibility for the resources they make available to other partners as well as more equitable sharing and use of results from the collaboration.

The quality of collaboration depends on many inter-organizational relationships and interactions between groups of employees who interact, negotiate, and provide value to partner organizations (van Winkelen 2010).

Management policies are developed by integrating the determinants of inter-organizational dynamics on the one hand (Easterby_Smith et.'s 2008):
- structures and mechanisms;
- social relations;
- intensity relationships in the network;
- level of trust and risk.

and characteristics of organizations on the other hand. I enumerate some of which are considered most important and studied by many economists:
- absorption capacity;
- intra-organizational transfer capability;
- motivations.

Looking for systematic patterns

The ability of organizations to collaborate with other organizations is dependent on its ability to turn internal collaboration (Miles et al. 2005).

Internal collaboration is not facilitated when the functional departments in the organization are highly specialized and isolated from the rest of the organization. Establishment of multifunctional work teams can substantiate a scaffold, an interdepartmental platform for internal communication thus generating products and services more integrated and strategically aligned with organizational culture.

On these grounds, Miles emphasizes that organizations which have developed a strong capacity of their employees ability to work together, are more easily able to develop external communities to collaborate in the future.

From the description of collaborative structures that are composed of firms belonging to different industries and where collaboration skills allow them to pursue a common strategy for continuous innovation, two features can be drawn: collaborative relationships are voluntary nature and also facilitates collaborative relationships generation of knowledge, and sometimes through a proper strategy, knowledge is transformed into continuous innovation.

Collaboration by creating and applying knowledge to generate a process of continuous innovation, is based on complex behavioral rules derived from several factors (Miles et al 2000. Hansen and Nohria 2004).

In the many factors affecting the collaborative, there are three main categories investigated more obvious: strategy, structure and management philosophy (Miles et al. (2005), Hansen and Nohria (2004), Morris et al. (2005).

Reported in hierarchies characteristic of organizations and markets (characterized by their mechanisms and control systems), inter-organizational networks gets a touch of distinctiveness by the following characteristics: mutual trust, cooperation, characteristics of relationships that are created, additional interdependence and an informal climate oriented toward mutual benefits (Alter and Hage 1993, Das and Teng 1998, Easton and Aranjo 1992, Larson 1992, quoted by Williams 2005)).

Based on individual characteristics, as a center of basic constituent of collaborative network. I tried to design a typology of collaborative behavior of individuals by combining three dimensions:

i. Individual Performance - delivering results through the accomplishment of their tasks;

ii. Performance within the organization - getting results from collaboration within the company;

iii. Performance in Inter-organizational collaboration - getting results from networks and systems of organizations.

By combining these three dimensions, I set up eight blocks, eight general types of human resources who will engage in network-type systems and will form elementary nodes of the collaborative network:

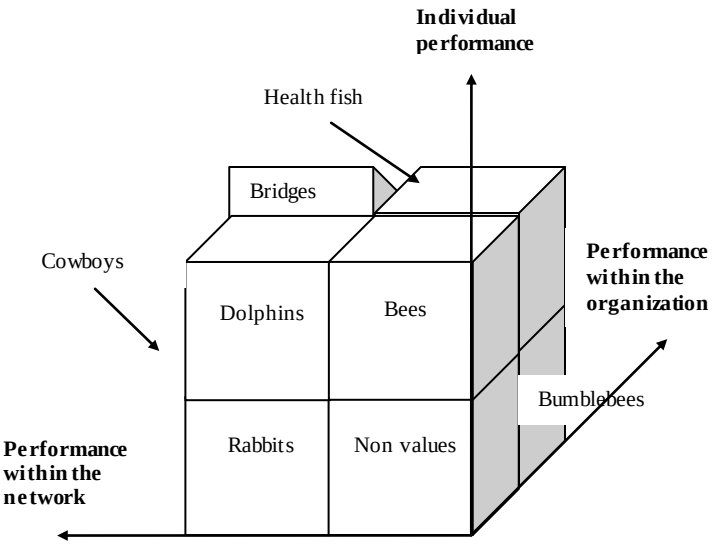

Fig. 1 Typology of collaborative behavior

1. Non values - meaning employees who fails to produce results, performance, and to bring added value, even when working individually, but even when working in collaboration with colleagues in their organization or with potential colleagues from another organization.

2. Bees - designates employees who easily able to obtain individual performance and achieve their individual goals, within their organization not working efficiently or at all and no performance gain by working with other employees, but, they get results and collaborate efficiently with new people, unknown, possible future mates in the creative community. This is the typology of the active employees and always eager to external activities, trips, which always feel the need to find places in many places outside the organization (for example, courses, workshops, exhibitions, product presentations, work communities or creative communities).

3. Rabbits - means employees who work together effectively with other people who are in continuous motion both within the company or outside, but it fails to produce results, performance, to bring value when working individually. During their activity, they are found everywhere, interacting with others, but their tasks are affected.

4. Health Fish - are employees who get good results both individually and in collaboration with their colleagues, but do not receive performance or collaborating with individuals from outside the organization. There are those who generally identify with a second family company, with an intimate setting where they spend their daily lives and are reluctant or feel uncomfortable, helpless, they are blocked when they should interact with the outside world.

5. Bumblebees - are employees who do not deal effectively with their own tasks, fail to focus on individual goals also are not sociable and do not fit into the new collectives, but getting good results from collaboration with their mates, they communicate and collaborate better with colleagues within their own organizations, which can maintain a friendly and a family environment. They are always active and they can be found in different departments or collaborating with colleagues in the office.

6. Cowboys – meaning misfits employees, dissatisfied with their own company, which not channel their efforts to achieve the objectives because of their frustrations, but still have some skills. Although it is a rare case (because normally they will not last too long in his company), however in inter-organizational community they can find an outlet and put their skills to gain performance by working with new or different people from outside of the company.

7. Bridges – meaning the employees who receive performance on all levels, whether working individually, they are capable in their employment and reach their goals, whether they interact and collaborate with all kinds of people.

8. Dolphins - is the typology of employees who get results and performance only working individually, but they have an attitude that is contrary to the collaboration. They are effective on certain areas or activities of the company (eg sales). For this reason, many companies focused on collaboration, prefer to keep these employees, but does not promote them.

Intensity of communication in inter-organizational collaboration

Communication between employees who are involved in a network of inter-organizational collaboration can be made directly (face to face) or can be made be the mediators for the transmission of messages. Face to face communication provide richness.

To assess intensity of the communication and the spatial proximity and inter-organizational structures for collaboration, I made a study of 56 companies. In this study, I evaluated the modes of communication used and the intensity of communication with partners (suppliers, customers, NGOs) in collaboration network.

The respondents in this evaluation had a choice between seven different categories of mediators of their communication: e-mail, messenger, telephone, video conference, fax, face to face, group meeting, and between five different categories to rank the intensity of the communication: daily, weekly, frequency to two weeks, monthly, less than monthly and never. I have held daily and weekly communication as a communication frequency and intensity, the other categories I considered as low or zero frequency.

In setting up communication channels is important to consider the role of spatial proximity. The spatial proximity seems to facility face to face communication and knowledge exchange.

Conclusions

This study investigates how commercial and non-governmental organizations organize and structure their communications to develop and implement sustainable building innovations from inter-organizational collaboration.
The innovation processes aimed at sustainability, are modelled as inter-organizational innovation processes. To search for answers to the research question an empirical research project studied 56 sustainable projects in Romanian companies.

1. Positive results (which have brought more, something new on every level of the value chain) of the collaboration, were obtained in those networks in which the share was based on informal structures of communication at least 70% (which favored the transmission of tacit knowledge, knowledge crucial in developing innovative value chain segments). Formal communication structures are used mainly in reporting stages and progress of collaboration, and in activities related to budget and financing activities.
As a hypothesis for future research, this mix of formal and informal communication can provide a measurable indicator of quality of communication in inter-organizational collaboration.

2. Mediators and communication intensity. I present the results of the study conducted on the 56 companies in the following chart:

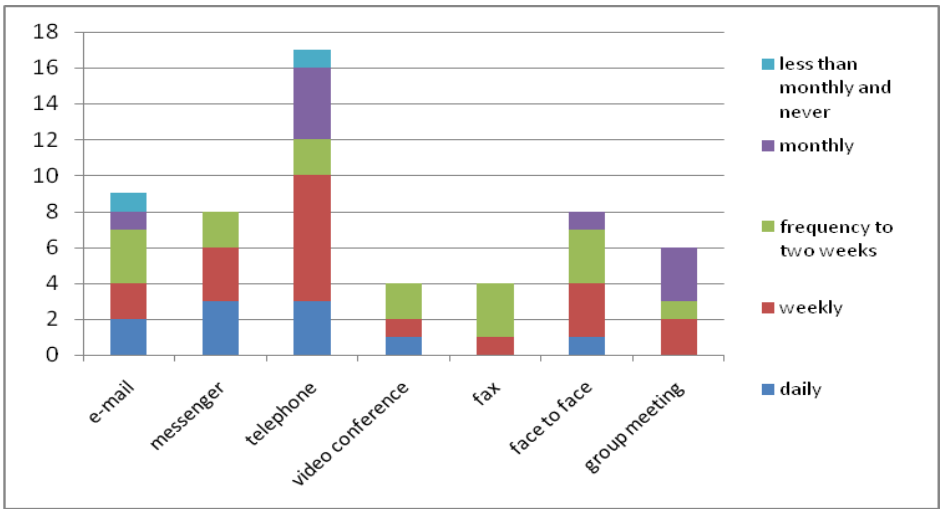

Figure 2 Communication characteristics

All the 56 companies used e-mail, messenger and phone as a mode of frequently communication, but messenger is not used as a mode of non-frequently communication. Considering that the people had to travel in order to communicate face to face, eight organizations used this mode of communication (and also groups meeting) as an important facilitator of knowledge transfer and creation. From this observation, I took the third conclusion:

3. Using the external knowledge and transfer methods. Processes of negotiation in inter-organisational collaboration become more complicated in accordance with the increased participation in decision making.

In this approach, ITC systems grow in importance in terms of their role in decision-making group, structured Business Intelligence Systems on collecting and processing information becomes more relevant in facilitating communication and coordination activities of individual members.

Evaluation and analysis of seven inter-organizational collaboration (van Winkelen 2010) found that participants had limited systematic mechanisms able to transfer knowledge back into the organization, knowledge created through collaboration. In this study, the author has examined best practices in collaboration, but

concluded that the excessive use of communication and in particular the type of informal, face to face communication, the large number of connections developed at the individual components as nodes of the network, have contributed to the inconsistent use of technology, systems and processes.

Several interviewees confirmed that the starting point for using knowledge of the results of inter-organizational collaboration is the personal effort of the employees involved, effort to plan and design implications for their organizations, knowledge gained, and more, to then identify the appropriate internal mechanisms for knowledge transfer within the organization.

Operating in an unpredictable environment and to some extent under the influence of some uncontrollable circumstances, organizations involved in inter-organizational collaboration networks are faced with the need to control a continuous process of adaptation and transformation, a process characterized by the speed of change and high frequency interference, which does not allow control of the organizational managers. (Burnes, 2000).

In accordance with an emerging vision, identifying and managing change must be a responsibility of all stakeholders in a collaborative project, therefore it is expected that participants be competent, adaptable, willing to assume responsibility for identifying deficiencies and implementation of collaborative solutions (Osarenkhoe 2006).

4. Establishing trust is the heart of a inter-organisational network and the engine that will propel the information in the network communication channels. The level of trust between partners will change development and structure network.

Discussions

The objectives of my research approach, have as their purpose, proposing a coherent set of actions for the management of organizations to improve their ability to obtain additional value through participation in collaborative inter-organizational structures of continuous innovation.

By identifying factors and translate them into models follow:

- to explain the emergence, development, configuration, maintenance and dissolution of collaborative networks;
- to explain the formation of inter-organizational collaboration structures that is self-organizing and;
- to identify predictors for inter-organizational collaboration models.

In relation to the current level of research on the inter-organizational collaboration has been shown that the partners in a collaborative network have limited systematic mechanisms able to transfer knowledge back into the organization, knowledge created through collaboration.

The interconnection between internal company networks and the networks created in collaborative community is poor, excessive informal communication such as "face to face" showing inconsistent use of technology, systems and processes (van Winkelen 2010).

One of the challenges ahead is to argue and demonstrate the potential ability of a Business Intelligence System to provide the necessary levers and tools for efficient management of collaborative networks.

Companies must have the tools to enable them to receive immediate results and knowledge from the inter-organizational collaboration, their correct analysis and making appropriate decisions in the shortest time possible. Moreover, for the marketing of innovations generated at the network level, information from external environment is vital, companies must be aware at all times that are most wanted products on the

market, that are most profitable customers, what new products and services should they offer to remain efficient.

In addition to competitiveness, companies must constantly be concerned with optimizing their value chains and improve business decisions, to have achieved success in trading the collaborative innovation on the market.

Evaluation of Business Intelligence system involvement in innovative collaboration could be made by:

- the ability to extract the essence of information developed in collaborative network;
- development of intuitive information, qualitative assessment of how the information collected and synthesized are offered on the network partners (eg, information that is offered to customers before and after the sale, giving customers the information needed to make smart decisions to purchase, providing additional information that they need partners, etc.);
- the processing of information collected from the collaborative network and the absorption capacity of the system developed in the organization;
- provide information gathered and synthesized, assess how the network serving partners.

Acknowledgments: This work was supported by the the European Social Fund in Romania, under the responsibility of the Managing Authority for the Sectoral Operational Programme for Human Resources Development 2007-2013 [grant POSDRU/88/1.5/S/47646]

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