

# **CONSTRUCTIVE MODEL OF COLLABORATION SPACES FOR A SUSTAINABLE SHARING KNOWLEDGE MANAGEMENT IN PUBLIC-PRIVATE PARTNERSHIPS**

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## **ABSTRACT**

This paper deals with a constructive model of collaboration spaces based on the cultivation of Communities of Practice in conjunction with the Soft Systems Methodology. The aim is to obtain a sustainable knowledge management sharing in public-private partnerships which will allow the necessary production of synergies and it will give the desirable social and economic results for the partnership.

We suggest the use of knowledge management procedures in the cognitive and social dimension to guarantee this sustainability while considering the characteristics of a public-private partnership process and its development stages.

The empirical data obtained after verifying the model applicability in a real partnership is examined in order to explain the evidences of the reduction of barriers to knowledge sharing and they are related to the creation of proper individual contexts, which are the result of a common social universe among partners and of a greater ability of abstraction.

*Keywords:* Knowledge Sharing, Public-Private Partnership, Soft System Methodology, Communities of Practice.

## **INTRODUCTION**

Nowadays many countries' governments are engaged in promoting public-private partnerships (PPP) so that they can improve public service and increase returns to private investments. In these cases, the expectation is to obtain greater synergy among partners by making them interact with each other through a true knowledge sharing, providing thus the opportunity of achieving higher social and economic results for the enterprise.

In general, public and private companies have different organizational traditions in terms of the way they think and work, which are the outcome

of serving different clients for a long time. So, one will often encounter knowledge-sharing barriers related to different organizational modes.

In this paper, we present the most frequent causes for the existence of internal barriers that hinder knowledge sharing in the interaction that occurs in a public-private partnership. Moreover, we provide a constructive model of collaboration spaces for knowledge management specially developed to overcome these barriers while offering a sustainable knowledge sharing.

The empirical data obtained after verifying the model applicability in a real partnership is used to demonstrate the potential of the model to overcome management sharing barriers which make it more difficult to get the right synergies and the desirable social-economic results.

The model provides a common social universe in which the partners know their social and functional roles, allowing them to achieve their common objectives.

## **1. DYNAMIC CHARACTERISTICS OF THE INTERACTION PROCESS IN A PUBLIC-PRIVATE PARTNERSHIP**

In the beginning of an interaction process among companies in public-private partnership, the people still do not know each other and the first contacts will allow them only a little knowledge sharing in a cognitive dimension. The first stage of this process is to define the partnership's objectives and the need of cooperation among partners (DURAND, 2002).

With the aim to obtain synergies by improving the work's coordination and integration, a proper management of the partnership's production process will satisfy the clients' expectations and it will improve the use of the partnership's resources (VARVAKIS, 1998). The development of interactions for organizational knowledge sharing will progressively move from the pure cognitive to the social dimension, since the main objective of the partnership is to obtain social-economic results through synergies acquired from knowledge sharing of the companies' background bases. It is a high value implicit knowledge, operating on a social basis (BHATT, 2001).

Thus, in the beginning of the interaction process, we may use the perspective that considers organizational knowledge as a commodity, something that can be owned by people. However, when interaction and communication become greater in intensity and frequency, the most suitable perspective is to consider organizational knowledge as a socially constructed concept in a social learning process (CHIVA and ALEGRE, 2005).

The access to the partnership's internal and competitive advantageous knowledge bases depends on a coordination of the partnership's procedure whose routines and processes should provide value creation for the organizations of the companies (MARSHALL, 2004; BHATT, 2001). The partners' corporation behavior norms will be defined by the partners' values which become explicit in the first meetings to negotiate their interests that were established by them and by the partnership's objectives in the beginning of the interaction process (LOZANO, 2005).

## **ORGANIZATIONAL KNOWLEDGE SHARING**

Taking into account the companies' need for interconnection among their stored knowledge and also the different kinds of interdependent relationships that exist in a partnership enterprise, the organizational knowledge sharing shall be coordinated by different mechanisms as time goes. If the companies' labor activities still have the need to be standardized to guarantee the integration of specialized knowledge in these activities, the coordination mechanisms of the interdependent organizational elements could be pooling or serial types, in which each part of the product development process contributes to the whole or each specific process should be done previously to the whole.

When the set of activities in the partnership increases, the need for interaction and communication among the partners also increases. Thus, a coordination mechanism of interdependence of the reciprocity kind, in which the output of each specific process for the final product is also the input to other processes, may help reaching the partnership's objectives, even with a rising cost to the interdependent coordination that comes from the need of a more frequent number of informal interaction and meetings (CHRISTENSEN, 2007).

In the development stage, when people not only complement each other's competence but also start creating routines, rituals and interpersonal connections, which is a fundamental requirement for the existence of synergies, they will be constructing together a common social universe (DURAND, 2002; CHIVA and ALEGRE, 2005).

In this kind of knowledge management that stimulates organizational change and learning, it must be included not only monetary rewards for the participants, but also rewards such as acknowledgements for their work and possibilities of personal development (SANTOS, 2005; KHARABSHEH, 2007).

### 3. BARRIERS TO SHARING MANAGEMENT KNOWLEDGE

In an interorganizational PPP, the kinds of knowledge used are the same of any organization. It is used professional knowledge, coordinating knowledge, that knows how and when to apply knowledge, knowledge focused on the object of production, and *know-who* knowledge, applied to knowing who should do the activities that influence other organizational activities (CHRISTENSEN, 2007). Management knowledge is a comprehensive kind of knowledge, usually including all kinds of knowledge already mentioned, and it is difficult to be reproduced because it is specific and dependent on each company's inner characteristics.

When the PPP managers are in the stage in which they need to play an active social role in order to make accessible the sharing of the companies' internal knowledge, it is usually common to appear barriers to this knowledge sharing process. This happens mainly when the kind of knowledge is management knowledge and it is due to different organizational cultures that were historically constructed when the companies were looking after different economic and political interests (BOYNE, 2002).

The different values and perceptions which are shaping the management behavior of public and private sectors make their ways of thinking and acting differ from each other. These sectors different organizational traditions are the main causes for the existence of barriers to sharing the companies' internal management knowledge in the most advanced stage of the partnership development. The participants are still using different rules to identify the contexts since they are not immersed in a common social universe.

A new social reality may be constructed by them through social interaction and discursive behavior, thus shaping new interorganizational groups in the partnership net. These groups should take on a strategic posture combined with the partnership's objectives of the enterprise to contribute effectively to it. This posture depends on three factors: the imposition of functionality, the collective intention and the rules to identify specific contexts through socially constructed actions.

Starting from the premise that the more plural and diverse knowledge sharing is, the chances of the partnership in reaching its social-economic objectives will be greater and more collaboration will be necessary in the interaction among companies' managers so that synergies will result from their joint efforts (CHIVA and ALEGRE, 2005; MANTERE and SILLINCE, 2007). Knowledge sharing depends on appropriate contexts for knowledge exchange among social actors of the interorganization.

When the partnership's inside actions are directed to specific problems in which the partners exchange personalized knowledge with each other, such

as suggestions, questions and assessments, knowledge sharing will depend on the existence of appropriate contexts for them (BERENDS, 2005).

#### **4. THE CREATION OF CONTEXTS FOR KNOWLEDGE SHARING**

The establishment of similar contexts among participants of a public-private partnership requires the existence of previous social experiences which will allow the emergency of common understanding among them (AUGIER and others, 2001).

It is possible to create a context that will favor the emergency of social relationships by defining a suitable time and place for the exchange of tacit knowledge, a place known as *Ba* (NONAKA e KONNO, 1998). Moreover, the participants would also be able to build up their own contexts through interpreting their pairs' social actions in the interactions and to identify the meanings of these actions (AUGIER and others, 2001). In order to guide the participants to meaningful interactions, it may be used informal groups of continued learning such as Communities of Practice - CoP which are very efficient in tacit knowledge sharing, a kind of knowledge that is found in the companies' most internal bases (WENGER, 1998; BHATT, 2001).

The CoP allows the creation of social ties among partners and together with knowledge sharing will set the necessary collaboration among them, a prerequisite for interorganizational synergies (KOTLARSKY and OSHRI, 2005). Therefore, the companies' managers may exchange and share knowledge from the background basis of the companies, bringing benefits to the partnership through the sharing of routines, concepts, and vocabulary, thus shaping a common social universe. The set of companies' tacit knowledge will be at the participants' disposal if they adopt beliefs justification practices in a large scale and if they are conscious about and have access to their own mental states (SILLINCE and MANTERE, 2006).

A constructive model of collaboration spaces was developed to favor the formation of a common organizational culture through CoP and also the creation of shared values in a systematic and participative form so that knowledge sharing is made easier for public-private partnerships (REICHERT, 2008). This model may facilitate the development of appropriate individual contexts for knowledge sharing, and also synergies among the participants by expanding the abstract capacity and by fusing their organizational cultures (WENGER and others; SNOWDEN, 2003).

## 5. THE CONSTRUCTIVE MODEL OF COLLABORATION SPACES IN PUBLIC-PRIVATE PARTNERSHIP

In order to meet the needs of knowledge management and organizational change in a PPP for the obtainment of synergies through a proper sharing of management knowledge and collaboration among its participants, it was developed a procedure model based on cultivating CoP that is related to an interpretative method of non-structured situations called Soft System Methodology – SSM.

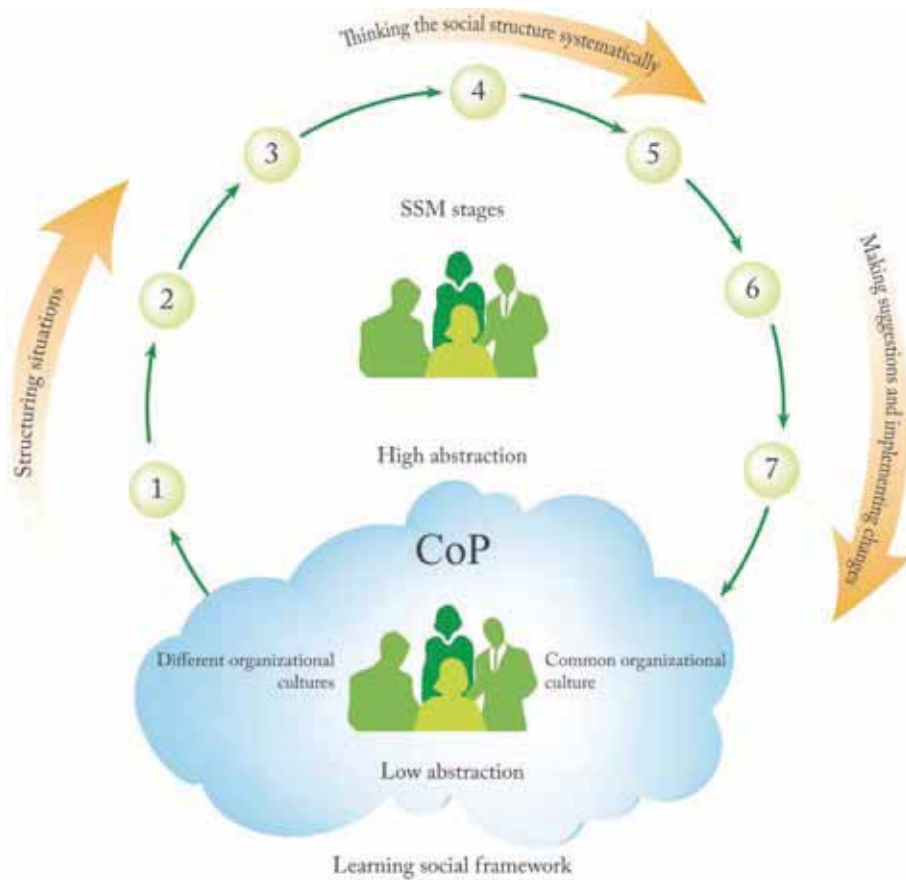
The SSM is a systemic and interpretative method of organizational problems solving. It offers a set of procedures for the analysis, discussion, and deliberation of technical and human matters, allowing people to participate with their different views on organizational problems. By this method, it is possible to structure undefined problematic situations and to provide very effective solutions of organizational change (CHECKLAND, 1999).

In the constructive model of collaboration spaces, SSM is used as the basis for cultivating CoP, making possible to analyze and to propose changes in situations of interaction among the partnership's social actors from various perspectives. Also, it will facilitate the exposition of its participants' values and the negotiation of new values for the partnership organization (EKASING and LETCHER, 2005; LOZANO, 2005).

In the constructive model of collaboration spaces in public-private partnership through CoP, the participants select the best form of cultivating CoP in the various situations of interorganizational interactions. They follow the seven stages of SSM, from structuring the situation until implementation of organizational changes, systemically thinking the social structure. They create a common organizational culture through CoP and a more compatible capability of high abstraction through SSM practice.

According to Figure 1, in SSM stages 1 to 7, the participants will discuss the structuring of the situation, identify the most relevant activities systems, elaborate conceptual models that correspond to situation roots, compare these models with the real situation, choose the best change to make and implement it (CHECKLAND, 1999). The SSM participants have to face the challenges of organizational changes which are creating and developing CoP in the partnership interorganization based on CoP cultivating theories (WENGER and others, 2002).

Picture 1 illustrates the nature of relationship between CoP cultivating and Soft Systems Methodology in the constructive model of collaboration spaces.

**Picture1:** Constructive model of collaboration spaces.

Source: Reichert (2008).

In the stage of conceptual model elaboration, the necessary human activities to produce the interorganizational process are described in the root definition stage related to a specific situation. If the root is defined by stimulating the social actors' proximity to develop trust and empathy among them, the correspondent conceptual model of human activities may be scheduling regular meetings for these actors aiming at exchanging personal information and discussing subjects of common interest.

**Picture 2:** Conceptual model of activities for CoP formation in public partnerships.

Model Activity	Description of Activity	Participants	Previous Activity
1	Informative meeting with a presentation from a coordinator of an informal interorganizational net.	High-level managers and groups A and B members	
2	Identifying subjects of interest for groups A and B	Informal net leader and members	1
3	Identifying subjects of common interest for groups A and B	Informal net leader e coordinator	2
4	Defining place, date and time to discuss subjects of common interest	High-level managers, coordinator and leader	3
5	Regular meeting to discuss subjects of common interest	Coordinator, leader and members of the group	4
6	Meeting to define social encounters between groups A and B members	Coordinator, leader and members of the groups	1
7	Defining place, date and time for the social encounters	High-level managers, coordinator and leader	6
8	Regular social encounters at the places chosen beforehand	leader and members of the group	7
9	Meeting to define a joint practical activity	High-level managers, coordinator and leader	5, 8
10	Joint practical activity	leader and members of the group	9
11	Effective collaboration between members of groups A and B for a proper balance between elements of dominance, community and practice of CoP	High-level managers, coordinator and leader	4, 8, 10

Source: Reichert (2008).

The implementation of activities for the formation and development of interorganizational CoP, as those that are suggested in Picture 1, will provide the reduction of management knowledge sharing barriers in public-private partnerships by constructing appropriate individual contexts together with the participants mutual understanding, acting in the abstract dimension by the participation in SSM and in the culture dimension by participation in CoP.

The difficulties in sharing the companies' internal knowledge will be overcome through CoP social ties that establish communication processes and



tacit knowledge coordination, in which feelings, emotions, experiences and mental models are shared (NONAKA and KONNO, 1998).

The interpersonal relationship network of a CoP is characterized by showing more intensive internal ties than the ties of a common informal network of interactions, producing a higher level of mutual engagement (ASSIMAKOPOULOS and YAN, 2006).

## **6. VERIFICATION OF APPLICABILITY AND CONSISTENCY OF THE CONSTRUCTIVE MODEL OF COLLABORATION SPACES IN FIELD AND MANAGEMENT KNOWLEDGE SHARING BARRIERS**

The applicability and consistency of the constructive model of collaboration spaces were tested in a real partnership which was formed by a business arrangement between public and private companies of the grain export market. Those companies were using jointly an Export Corridor in São Francisco do Sul port located in the south of Brazil.

The middle level managers of these companies were interviewed using the Oral History method (MEIHY, 1998) and the Collective Subject Discourse method (LEFÈVRE and LEFÈVRE, 2005) to obtain evidences of collaboration constructs and to make explicit the divergences among management knowledge.

### **6.1. Oral History method**

The Oral History method consists of a set of techniques to collect and analyze informants' narratives to identify specific events and historic facts of research interest. The informant answers on the evolution of collaboration constructs in the partnership, as trust, relationships, communication and joint meaning constructions, confirm the possibility of constructing a common social universe in a business environment with social actors of different organizational cultures.

Some factors, such as contingent impositions, difficulties sharing, informal meetings, interrelation of activities and opportunities of participation, promoted a spontaneous increase in collaboration among partners.

According to the procedures of the constructive model of collaboration spaces, the favorable conditions for these factors to happen in an intentional and planned way should allow the construction of a more harmonic and integrated common social universe to obtain sustainable management knowledge sharing.

## 6.2. The Collective Subject Discourse method

The Collective Subject Discourse method is a set of discourses on a specific theme aiming to enlighten the components of the semantic individuality of the social imaginary (LEFÈVRE and LEFÈVRE, 2005).

The interviewees' discourses are assembled in a discourse-synthesis that expresses a social representation of a specific phenomenon. Social representation is always present in human interactions and they are a system of values, ideas and practices with the finality of establishing guidelines so that people have some orientation and control over their material world and of making individual or group communication possible (MOSCOVICI, 2003).

Social representations are a product of actions and communication among individuals who cooperate with each other in a specific social environment and they are reinforced according to a given tradition. When groups of individuals of different companies need to cooperate with one other, as in a public-private partnership, social representations of different traditions may come into conflict, mainly in the fields of representation and behavior (MOSCOVICI, 1978), creating barriers to the interorganizational collaboration and management knowledge sharing.

The Collective Subject Discourse method made it possible to properly describe the meaning of the interviewees' discourses of the real partnership, reflecting on how groups of different organizational traditions think and act in terms of specific themes given in questionnaires.

Many arrangements could be done to increase partners' collaboration by constructing a common social universe. It was also observed that knowledge divergences between public and private groups were in part due to their socially justified rules and actions. The public and private group members had different ways of expressing themselves; for instance, for the public sector group "the worker knows that the company needs to collect duties", and for the private sector group "time is money", confirming that the groups' different visions result from the fact that they belong to different social universes, in addition to the differences in functionalities and collective intentionality (MANTERE and SILLINCE, 2006). These different visions establish rules for identifying contexts related to specific actions. The tradition of public and private sector influences the rules used by the groups, so in fieldwork it was found that the public sector group would rather valorize the social equity and the private sector group would rather valorize the economic efficiency (FONTAIN, 2001; REICHERT, 2008).

It was evident that the management knowledge sharing barriers would be reduced in benefit of the partnership enterprise for the creation of a common social universe through CoP among de participants, in which the rules of contexts identification would be shared by the groups of different

organizational traditions, once those groups have a sense of common purpose (MORAN and WEIMER, 2004).

The statements of medium level managers of the Export Corridor partnership confirmed the need to reinforce social ties and bonds among individuals of different companies to achieve the partnership objectives more efficiently. According to knowledge management theories for knowledge sharing and collaboration among social actors, it was verified that the interrelation of participants' activities creates a social system that improves communication; the sharing of success and failures creates empathy and trust among pairs; the social relationships can be improved by scheduled meetings; and opportunities of participation help constructing a common meaning (KOTLARSKY and OSHRI, 2005; MORAN and WEIMER, 2004; KIMBLE and HILDRETH, 2005; BECHKY, 2003).

Thus, it became evident the need for more systematic support by the partnership companies to the construction of a common social universe that will work on relationships, communication and other collaboration constructs through CoP and abstract capability in sharing common values through SSM.

## **7. CREATING CONTEXTS FOR SUSTAINABLE MANAGEMENT KNOWLEDGE SHARING IN PUBLIC-PRIVATE PARTNERSHIP**

According to the research previously described, management forms of public organizations are different from those used by private organizations. While the first ones live in a context in which the financial resources may not be easily transferred, the latter ones are living in a context in which they need to seek profits to survive in the market.

Therefore, different orientations to seeking profit provoke non-similarities among work cultures of the public and private sectors which make difficult the learning of joint work and knowledge sharing.

In a CoP, the participation of social actors with different orientation builds up trust and shared focus. The gain of sustainability by building up trust leads to the formalization of some learning mechanisms that will make partners with different business tradition achieve a common objective (JURIADO and GUSTAFSSON, 2007).

The contexts in which a PPP interorganization has to operate to accomplish their purposes are contexts developed by the social actors themselves of the partnership companies. Every context is built up by one person or group out of his interpretation on the specific situation in which it is considered what this person or group does and where and when they do it (AUGIER and others, 2001).

Once there is trust among social actors due to their participation in a CoP, when they are in interaction and dealing with a specific situation, they will be engaged in developing contexts which are appropriate to knowledge sharing by offering contextual elements that help mutual understanding.

The social actors' previous experiences acquired in the CoP through joint practices will allow the emergency of common understandings on the social level, favoring thus the establishment of similar contexts. The participation of these actors in the SSM will reinforce this context similarity in the abstract dimension through their level proximity in terms of linguistics, education and values.

In these contexts, it is possible thus to transfer to the interorganization the actors' prior experiences acquired in their companies, when they were still under influence of just one organizational tradition: the one of public sector or the one of the private sector.

Hence there is a flow of the companies' internal knowledge that leads to achieving the partnership objectives through a synergic process, stimulated by adopting procedures of the constructive model of collaboration spaces.

## **8. CONCLUSION**

The process of interaction development among participants of public-private partnerships begins with a cognitive complementarity which produces some gains for social-economic objectives. When this interaction becomes greater and more intensive, the public-private partnership will need to create social ties and similar individual contexts for participants' collaboration and more internal knowledge sharing from the background basis of the companies.

Despite the elevated costs of coordination mechanisms of interdependent reciprocity, based on a systematic creation of CoP, a procedure model for constructing collaboration spaces among social actors of a public-private partnership had its applicability for synergies production proved during field work in public-private partnerships. The barriers to management knowledge sharing shall be reduced by a systematic and participative intervention in the organizational culture and in the abstract dimensions of the participants' individual contexts.

From the data acquired in the research of the model's applicability and consistency, the different social actors' intentions were ascertained due to the non-similarities among their organizational cultures and to the possibility of creating a sustainable sharing of the partnership's knowledge management starting from an intentional and planned stimulus that will lead to the creation of similar contexts among these social actors.

According to the model based on cultivating CoP related to SSM, the barriers to knowledge management sharing could be overcome through a systematic and participative intervention in the organizational culture and abstract dimensions, which are the two dimensions of a context.

The differences in management knowledge between public and private sectors will end up becoming weaker in a common social universe, allowing thus the sustainability of knowledge sharing and the production of the necessary synergies for the public-private partnership to achieve their social-economic objectives.

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