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How Nigerien SMEs can build internal competencies by learning from their partners: the case of 2isoft

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Abstract

One of the major challenges faced by SMEs in an uncertain environment is to constantly innovate to survive and grow. In this context, building competencies through inter-organizational learning is one of the most recommended solutions. The purpose of this paper is to understand this phenomenon based on a case study using a Nigerien high-tech SME. The results show the difficulties of partners' cooperation, tacit knowledge acquisition and exploitation. They also reveal the ability of some SMEs to qualitatively change their stock of resources through the development of existing competencies or the creating of new ones.

Keywords: Competencies, SMEs, knowledge acquisition, inter-organizational relationships

1. Introduction

In recent years, relational activities of Nigerien SMEs have increased significantly. The growing instability of the environment characterized by rapid change in technology, shorter product life cycles and strong competitive pressure is forcing these companies to change their behavior and make adjustments to protect their sustainability. The key variables of their competitiveness can be linked to their ability to develop varied and complex products, to reduce uncertainty and by introducing rapid innovation (Coutinet 1999).To develop these capabilities, they must implement strategies to create and sustain competitive advantages but also to explore innovative knowledge (Jansen, Van Den Bosch and Volberda 2005).

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The innovation network theorists such as Cook and Morgan (1998), Batista and Swan (1998), Jeon et al. (2015) have stated that firms rarely innovate on their own, and that the introduction into the market of new products and processes largely depends on the firm's ability to build strong links with external agents. In this context, inter-organizational alliances can be used to facilitate the acquisition of new external knowledge to build competencies.

Alliances are defined by Gulati (1998) as voluntary arrangements between firms involving the exchange, sharing, or co-development of products, technologies, or services. By bringing together partner firms with different skills and knowledge bases, they create unique learning opportunities (Inkpen 1998; Liao 2016). With the emergence of the knowledge economy, learning external knowledge has become strategic to the survival and performance of Nigerien SMEs. This new knowledge provides the basis for organizational renewal and sustainable competitive advantage (Inkpen 1998). By renewing continuously SMEs' knowledge base, it offers them the opportunity to improve their innovation capabilities and build particular competencies.

More Recently, Kabue and Milika (2016) found that environmental changes also make previously acquired competencies obsolete or create new opportunities. If new opportunities are created, this would call for building new competencies to drive an SME in the right direction toward achieving a high performance. Building competencies is recognized by most managers as an important source of competitive advantage. According to Prevot et al. (2010), it is strongly associated with a high level of business performance.

But despite the increasing attention being given to competencies building through inter-organizational learning, this is still an area that is under-researched. Moreover, it remains unknown or rarely practiced in a large number of Nigerien SMEs. Many of the weaknesses of these companies when it comes to learning from their partners can still be observed and many questions remain unanswered. They have difficulties to identify, assess and disseminate the knowledge necessary to build competencies. There is also some confusion when it comes to choosing the appropriate method for building competencies. There is no descriptive and explanatory model and its contours are still relatively unknown by public and business leaders especially in Niger.

Our goal in this paper is to analyze the mechanisms of Nigerien SMEs' competencies building through inter-organizational knowledge acquisition. Therefore, building competencies is considered as the development of in-house competencies or the creation of new ones to finally achieve the company's goals (Sanchez et al 1996).

2. Competencies building

The special attention given to the concept of competence in the 90s led to the emergence of an independent perspective from the resource-based approach: the Competence Based View (CBV). Developed by the work of Hamel and Prahalad (1994), Sanchez et al. (1996) the CBV aimed to rethink the ''strategic thinking'' by highlighting the strategic role of competencies in competition between firms. The CBV employs an idiosyncratic perspective on designing and implementing processes to foster competence building and leveraging on the individual level, the group level, and the inter-organizational level (Lauden2016).

Other works done later by Freiling (2004), Sanghi (2007), Horng et al. (2011), Borch and Solesvik (2015), Fejfarova and Urbancova (2015), Kessler and Brendel (2016),Laudien and Daxböck (2016) Kabue and Milika (2016)contributed to develop the competence based view into a new strategic management perspective. They focus on the problem of innovation, learning, human resource development, steady competitive advantage and importance of change in firms' performance. Until these recent studies, the competence based view has attracted little attention and not changed much despite its well-grounded foundation. But the growing uncertainty and recent challenges exposed in the literature caused by rapid ecosystem changes encourage the rediscovery of the Competence based view. It does at the moment not take center stage as groundwork of research focusing on understanding and developing solutions for current management problems (Lauden 2016).

The ongoing digitalization of business activities addressed by Newell and Marabelli(2015) in their work on the strategic opportunities of algorithmic decision-making, a new type of customer behavior that crystallizes in a faster adaption to product innovation (DaSilva and Trkman 2014), the information and communication technology-based integration of national markets that causes an increased transparency and comparability of offerings (Teece, 2010) encourage firms to review and rethink their traditional way of doing business.

They can overcome these identified challenges through their competence building processes that will facilitate their adaptation to all the changes. But the concept of competence seems to have many meanings generating considerable confusion about its definition (Meschi 1997). Therefore, we will retain the definition proposed by Sanchez et al (1996) used to structure and to synthesize the CBV perspective and its various features.

Thus, competence is defined by the authors as "the ability of an organization to support a coordinated deployment of assets to achieve its goals," (Sanchez et al 1996, p 8). It is not limited only to the use of assets; it takes into account certain conditions including the role of the firm in the deployment of assets and its intention to achieve the goals by guiding the use of these assets. Sanchez et al (1996) also consider competence building as a process by which the firm conducts qualitative changes in its stock of resources and capabilities or creates new options to achieve its goals and achieve future actions. Other definitions of competence building in the literature were given by Durand (2006), Borras and Edquist (2013), but are less important for this study.

Sanchez and Heene (1997) also consider that the competence building process is performed when the firm acquires qualitatively different assets, creating new capacities or by adapting existing ones for new uses. In these circumstances, the strategy should not only allow the firm to protect the sources of competitive advantage but also to look for sources that continually renew its competitive position. For this, firms must strengthen their learning abilities to consolidate the basis of existing competencies and the exploitation of new ones. Which makes the competencies building activities complex since the firm must manage this dilemma to avoid the risk of blockage (Doz 1994) or inertia according to Sanchez et al. (1996). It may be an obstacle to enhance the competencies by integration of external elements. Therefore, March (1991) suggests that firms have to find an appropriate balance between these two processes. In this study we simply consider competence as the most advanced stage of the knowledge chain (Mack 1995).

3. SMEs learning from partners

The development of the Knowledge Based View in the 90s used to design the firm as a set of resources. Among them, knowledge is considered to be the most important that a firm must acquire to ensure its sustainability and competitiveness.

The acquisition of new organizational knowledge is increasingly regarded as a management priority (Inkpen 1998; Jurado 2009; Purcel and McGrath 2013; Asrar-ul-Haq and Anwar 2016) and associated with both operational performances and product innovation. For many authors (Cohen & Levinthal, 1990; Lane and Lubtakin 1998; Inkpen 1998), learning refers to the acquisition of information, technology and know-how available to increase organizational efficiency. It influences the organizational results (Baker and Sinkula 1999; Sharma 2006; Imran et al. 2011; Frank et al.2012, Ozturk et al. 2016), organizational innovation (Perez Lopez et al. 2005; Lin et al. 2008; Goh et al. 2012; Marvasti et al. 2014; Kalmuk and Acar 2015), strategy effectiveness and strategic flexibility (Santos-Vijande et al. 2012; Thoumrungroje 2015), employees' satisfaction (Goh et al 2012, Dekoulou and Trivellas 2015) as well as the results of projects(Murray 2003).

It responds to changes in both internal and external environments and provides new knowledge from external sources for further use. Learning from partners is oft stated to be one of the foremost motivations for alliance formation (Khanna et al. 1998; Purcell and McGrath 2013; Li 2016). Choosing partners as an external knowledge source is very important for SMEs given their dependence and limited resources. But according to Goh (2002), acquiring knowledge from partners is a complex process that is dependent on the relationship context, knowledge characteristics and the company's learning abilities. When those conditions are created then individuals' and SMEs' abilities to learn and interact, as well as the organizational culture can affect the company's ability to absorb new knowledge (Cohen and Levinthal 1990). Given the diversity of these conditions, we believe that the partners' learning should be considered not only as a social process but also as the understanding, integration and knowledge reconstruction requiring special learning methods.

Strongly oriented towards innovation activities, high-tech SMEs have a critical need for external knowledge and therefore focus their strategies on their acquisition from partners. In this context, the role of the owner-manager is crucial in learning operations. He must think about the right formula to take better advantage of the inter-organizational learning opportunities. He can also adopt a learning process structured around the stages of identification, transmission, processing, storage and retrieval. The identification stage enables the SMEs to recognize and acquire external knowledge; the transmission stage ensures the knowledge transfer from the SME source to the receiver.

The processing stage enables the SME to know the opportunities for future exploitation of the acquired knowledge. In the storage stage, knowledge is codified and stored carefully in databases, where it can be accessed and used easily by anyone in the company (Hansen et al. 1999).The retrieval stage provides access to the stored knowledge and prevents their loss from an employee turnover. When all phases are completed, SMEs can integrate the knowledge gained in their internal processes and products.

However, the tacitness, complexity or specificity of knowledge could hinder the learning process (Szulanski 1996; Simonin 1999; Rivkin 2000; Uygur 2013). According Szulanski (1996) and Lam (2014), tacit knowledge is difficult to articulate coherently and comprehensively from one individual to another. It is personal, hard to formalize and rooted in action, procedures, commitment, values and emotions, etc. (Seidler- de Alwis and Hartmann 2008). Tacit aspects contribute significantly to its ambiguity, making it difficult to imitate. Complexity refers to the common understanding of difficulty when various technologies and expertise are combined to form a competence (Simonin 1999).

Complex knowledge is an important constituent of various firm capabilities, and helps coordinate and integrate different areas of expertise to achieve organizational objectives (Kim et al. 2015).It is also hard to imitate and difficult to be transferred within a firm. The specificity refers to the specificity of transaction cost assets. It is considered by Simonin (1999) as a form of sustainable investments in facilities and specialized equipment as well as qualified human resources.

This specificityoccurs when the exchanges require specific investments to implement legitimate contracts or when distinctive know-how is acquired during contract application (Rossignoli and Ricciardi 2015). Italso needs the assistance of the knowledge of other relevant fields for the aim of being understood (Liang et al. 2007).However, its difficulty to transfer out of the firm makes also specific knowledge a source of ambiguity. But according to Nonaka and Takeuchi (1995) and Uygur (2013), these obstacles can be overcome by firms.

3.1 The importance of organizational factors during the learning process

There is an implicit consensus on the importance of the receiving SME behavior in the learning process. Its ability to absorb new knowledge and the role of prior knowledge are considered by Cohen and Levinthal (1990), Lane and Lubtakin (1998), Turner (2013) andSáenz et al. (2014) as the main elements on which are essentially based the knowledge acquisition operation by influencing inter-organizational learning. Since the publication of Cohen and Levinthal (1990) much of subsequent research on inter-organizational absorptive capacity has also treated the concept as a proxy for 'prior knowledge' (Lane et al. 2006).Prior knowledge that individuals have allows them to develop mental models to handle similar situations and problems and make them able to absorb knowledge, even when it is complex and tacit (Weick 1979). According to Dyer and Singh (1998), Mowery et al. (1996) and Turner (2013), the absorption capacity has to be associated with certain determinants of inter-organizational learning such as firms' mutual intent to learn, their geographic proximity, organizational similarities, and dominant logics to support the inter-organizational learning process (see Figure 1).

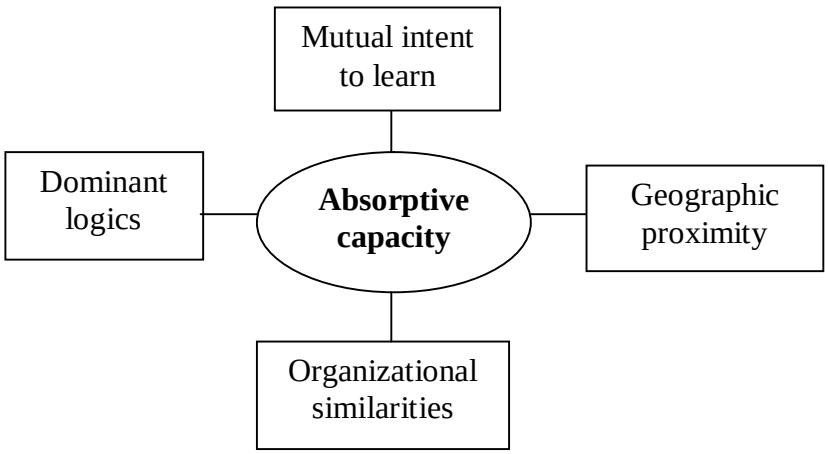

Figure 1: Factors associated with the knowledge absorptive capacity

The mutual intent to learn reflects the will of the receiving SME to acquire new knowledge based on mutual commitment and motivation of partners to facilitate the flow of knowledge. The dominant logics play an important role in finding the right partner and attaches particular importance to opportunism behaviors within the relationship.

Organizational similarities refer to similarities between organizations in terms of human resource policies, administrative processes and organizational culture (Das 2012). They can facilitate the partners' mutual understanding and collaboration in the learning process. Geographic proximity is the existing distance between partners. The shorter it is, the more it facilitates communication and coordination of the activities among partners who have the opportunity to get together quite easily. All these organizational factors greatly influence the ability of SMEs to exchange but also to acquire external knowledge.

3.2 The importance of the relational context

The relational context includes the following elements: SMEs' trust and commitment (Kakeeto-Aelen et al. 2011,Kac et al. 2015,Ferro et al. 2016), inter-dependence between partners (Contractor and Lorange 1988, Das and teng 2002b, Pfeffer 2005, Chiambaretto 2015, Lechner et al. 2016), support structures for the relationship (Johnson and Sohi 2003, Cummings and Teng 2003,Rossignoli and Ricciardi 2015), collaborative relationships experience (Mortensen 2008, Lewis et al. 2010, Miric et al.2013) and cultural barriers to learning. Trust reflects the ability of partners to think that their behavior remains mutually honest and consistent in the future, even if the possibility of opportunistic behavior cannot be totally ruled out. It is considered as the basis for the resolution of conflicts and cooperation to deal with uncertainty.

The commitment reflects the will of the parties to stay in the relationship or at least maintain its quality because of its importance (Morgan and Hunt 1994). Recently, Payan et al. (2015) found that organizational trust and commitment are both positively related to relationship satisfaction. They remain especially important for the implementation phase of the relation (Gachengo and Kyalo 2015).The level of dependence of the partners in the relationship provides access to resources that have a significant impact on competitiveness and are not available internally. According Hallen et al. (1991), its importance is explained by the fact that companies do not fully control the resources they need and are therefore dependent on partners' knowledge. As firms invest time and effort to build relational governance structures, they become more dependent on their partner because duplicating relational bonds with a new partner would involve additional investments (Gachengo and Kyalo 2015). This dependency may affect the development of the relationship and the knowledge acquisition process.

The collaborative relationships experience reciprocally influences the image that companies have of each other. According to Möller and Wilson (1995), the effects of this experience are visible in resources but also in the social ties that are developed between organizations and among individuals. These ties influence the level of SMEs trust and therefore the way they are willing to make additional investments or adaptations of their activities to further develop the relationship. However, Gossen and Brandojic (2014) argue that the differences between the two partners' collaborative experience influences one's capability to learn more from its partner and vice versa.

The support structures of the relationship aim to enhance the SMEs' learning abilities by developing their communication systems. They facilitate the communication flow, the transaction between the companies and also stimulate their inter-organizational learning efforts. According to Johnson and Sohi (2003), Miric et al.(2013) andSáenz et al. (2014), these structures are usually designed to facilitate the interaction between organizations, the development of a common infrastructure and motivation structure. The cultural barriers focus on the differences between SMEs' values and beliefs and may affect the partners learning operations. They develop distrust and hinder communication and understanding in the relationship. Therefore SMEs must conduct a cultural fit to enhance the degree of 'perceived' compatibility between the two cultural systems.

4. Research Methodology

Given the objectives of the research, a qualitative method based on a Nigerien high-tech SME was chosen to understand the phenomenon studied with the real-life events (Yin 2003a) told by the company's executives and engineers involved in the project. The case study is more suitable for this research because it allows us to collect comprehensive and intensive information about relationships, factors influencing the inter-organizational learning process, and competence building. It also helps to meet the ambiguous and complex contextual management issues within an interdependent network of actors (Ghauri 2004).

A pilot study conducted between December 2013 and March 2014 facilitated the access to the research field and also helped to establish a qualifier sample on which the case study was based. It also facilitated the selection of people to interview.

The sampling criteria are based on an SME that operates in the high technology sector and performs inter-organizational relationships to acquire knowledge. This SME should have projects of building competencies through external knowledge, must have a geographic proximity with its partner (the knowledge source) and the availability of respondents. The first meeting we attended in June 2013 as a not involved observer, was to know after months of studying the partners, the kind of competencies the company needed in order to support its growth objectives.

To collect the data, semi-structured interviews were used with an interview script to ensure that all relevant issues were addressed (Yin 1984). A multi-angulation suggested by Hlady-Ryspal (2000) was sought through multiple data sources and interviewees. Thus, the collected data were supplemented by additional information from internal company documents, meetings or workshops during joint operations between partners. A total of thirty interviews involving 18 people were made during an average period of one hour and 12 minutes between December 2013 and March 2014.

Content analysis by manual method was used to analyze the collected empirical data to describe, explain and compare the behaviors, discourses and strategies of the respondents. A presentation of the results to the respondents has strengthened the internal validity of the study by confirming that the collected data represent the reality.

5. Presentation of the case study

Located in Niger's capital Niamey, 2isoft is a high-tech and advanced software engineering SME that is specialized in the design of software, and systems. Created in 2006 through the merger of two very small companies, it operates in resource optimization activities, implementation of sophisticated interfaces, and the design of broadcast and audiovisual systems. In 2014, it had 19 employees and generated annual sales of 43 million FCFA[2].

[2] 1$ is estimated at 600 FCFA

5.1 The relationship for inter-organizational learning

Among several ICT solution providers approached in April 2014 for a project to design an antenna sales system (ASS), only ITT was chosen as a partner. ASS design was very important for 2isoft commercial operations especially as the distribution of digital programs is growing rapidly in Niger. This system must provide managers the ability to access all information and reports via a single interface. It was also designed to support the comprehensive needs of strategic and tactical antenna sales reports (inventory planning).It incorporates several subsystems: the first aims to support sales strategies (to collect information about customers, contracts and competitors…), the second aims to organize TV programs and advertisements.

ITT is also located in Niamey and operates in the ICT sector by providing solutions on data management and protection, by designing server virtualization and storage systems. A few years ago, it changed some of its activities and become more interested in the design of broadcast and audio visual systems and interactive advertising business and marketing of antenna sales systems. Its reputation in project development and the maintenance of systems, geographic proximity and willingness to train partners' employees motivated the choice of 2isoft. The partnership was then developed to include design projects of new types of systems and their maintenance.

The 2isoft CEO interviewed in July 2014 explained the reasons for the company's partner choice as follows:

"ITT was chosen due to its expertise in the projects of design, development and maintenance of systems. This company is well known for it. It was also chosen because of its willingness to train our engineers. [….] finally we are neighbors and this is very important for the work to take place".

5.2 Inter-organizational learning

5.2.1 The learning process

The identification of the knowledge to be acquired was performed before the start of the relationship after examining the partner's activities and skills. For example, the desire to acquire knowledge related to systems integration has enabled the company to confirm ITT as the only strategic partner during this period.

Informal meetings of the team in charge of the project, weekly work meetings and workshops, facilitated the transmission of knowledge between engineers. The processing had taken place gradually as the ASS's design operations evolved through meetings and workshops that facilitated interaction between engineers. Storage was based on individuals who are directly involved in the project and particularly on their documentation work. The retrieval by company's engineers facilitated the dissemination operation of stored knowledge.

In November 2014, two 2isoft engineers who participated in this learning process explained it as follows:

"…Without taking into account the identification, transmission, processing, storage and retrieval of knowledge, the learning operation would not have been possible and each of these steps helped to acquire knowledge but also to reduce the costs associated with the operation".

"Before the relation began, we identified the knowledge to be acquired and the engineers' meetings and workshops facilitated the knowledge exchange. Meanwhile, this knowledge was processed to facilitate their storage in documents. [….] Finally, the stored knowledge was retrieved and disseminated".

5.2.2 The role of the relational context

Mutual trust between the partners has evolved with the development of the relationship. It was based on the contract issued to clarify the responsibilities of the partners and the working method to be adopted, the existing social relationship between the engineers involved in the project but also the abilities of ITT and its previous results in systems development projects.

The mutual commitment of the partners has led to various investments in the coordination of the relationship and mutual adaptation of resources to facilitate the learning process. The duration of the relationship had increased the interdependence of the partners. Over time, 2isoft became dependent on its partner who did not take directly advantage of that situation due to the strategic importance of the relationship. This interdependence was related to existing differences in the partners' resource base. In addition, a communication platform and a common information system were set up as support systems to the relationship to support learning efforts and to facilitate the knowledge transfer.

Reputations and know-how developed through the experiences gained in previous projects influenced the image that the companies had of each other. As both SMEs operating in the same industry have employees who received the same training and coming from the same backgrounds, cultural barriers have not affected the management of the relationship and the learning process.

The 2isoft CEO interviewed in December 2014 explained some aspects of this relational context as follows:

"I would like to emphasize the importance of the contract that shows the mutual commitment of the partners in the project. This commitment was strengthened by mutual trust developed over time and resulted in investments in the coordination of the relationship".

"We have decided with my colleague of ITT, to put in place not only an information system but also a communication platform to overcome the difficulties posed by the external knowledge transfer and to support the learning efforts".

5.2.3 The role of organizational factors

Geographical proximity (500 meters) has promoted the interaction of business and facilitated the work of the engineers assigned to the projects. It allowed 2isoft engineers to negotiate regularly with the partner the necessary resources for the project's success and to revise if necessary the design and content of the system. The experience, technical know-how in the tasks, engineers' knowledge bases and their familiarity with the tools (operating systems, applications, development tools, databases, etc.) have highlighted the role of prior knowledge in learning. 2isoft and its partner are all SMEs operating in the same industry, but the degree of formalization and task assignments was different. The partners' learning intent has set clear objectives in the short and medium term and supported their mutual commitment in the relationship. It has also supported the deployment of resources and fostered a positive learning environment. Moreover, 2isoft's capacity to capitalize on transferred knowledge and to recognize their value more than its partner highlighted the importance of its dominant logic in the relationship.

Two other 2isoftengineers involved in the project and interviewed in December 2014 gave their impressions on some organizational factors as follows:

"With the companies' geographical proximity, we can meet easily to negotiate the necessary resources and to discuss the system contents, design and the relationship details"

"It is obvious that without companies' mutual intent to learn, engineers' previous experiences and familiarity with the technologies used in the project, the inter-organizational learning process would not have occurred. I think [….] that these measures have been planned well before the start of the project to avoid eventual problems".

5.3 The knowledge gained in the relationship and its dissemination

Through learning, 2isoft was able to gain some knowledge regarded by engineers as tacit since it is acquired only through learning by doing. This knowledge is specific to the system and divided into three categories:

- Integration of various systems to a unique interface
- Automation of antennas reporting options
- Codification of the media archiving programs system design of coordination and planning tools

Knowledge related to the integration systems and codification of archiving programs has been widely disseminated within the company. According to the engineers, this dissemination was the result of experiences developed in the inter-organizational relations and strategies implemented in the meantime. Here are the words of the project's chief engineer interviewed in the January 2015:

"Frankly, I think that the experiences gained in previous inter-organizational relationships, the fact that engineers working on the project are highly qualified and the existing knowledge dissemination strategies within the company contributed significantly to the success of the dissemination process of the external knowledge gained".

This dissemination passed from one individual to the team that participated in the project and finally to the organizational level. However, knowledge related to the automation of reporting options has not been disseminated. They have been deprecated since they remained in the possession of a 2isoft engineer involved in the ASS' automatic applications development. Meanwhile, he had joined another firm, where he was leading a team working on the same type of project.

According to the 2isoft CEO, this phenomenon of turnover has become common with the development of the high-tech industry in the country. Therefore, Nigerien SMEs have difficulties to control and manage their relational activities.

5.4 Competencies building through the acquired knowledge

The dissemination of the acquired knowledge has enabled the company to build two competencies (see Table 1).

Competence built solely by the integration of new external knowledge	Competence built by combining the existing knowledge with those acquired externally	Qualitative change of resources and capacities
	Programs development for the integration of cross- systems in a single interface	Strengthening the competence and expertise to implement solutions
Capacity to design the commercials archives and TV programs		Improving broadcast operations and the value added service offerings Pioneer in the Nigerien market through the development of a new product

Table 1: The competencies built by 2isoft

As shown in Table 2, the competence related to the design of the commercial archives and TV programs system was the result of the integration of new external knowledge in the base of remaining competencies. With the engineers' know-how and experience, this acquired knowledge favored the building of new capacities that enabled the company to cope with various situations. The competence related to the development of systems programs and its link to a single interface resulted from the combination of the remaining competence on simplified systems and knowledge relating to the integration of various systems used in the project. We can represent all of these competencies building operations in Figure 2.

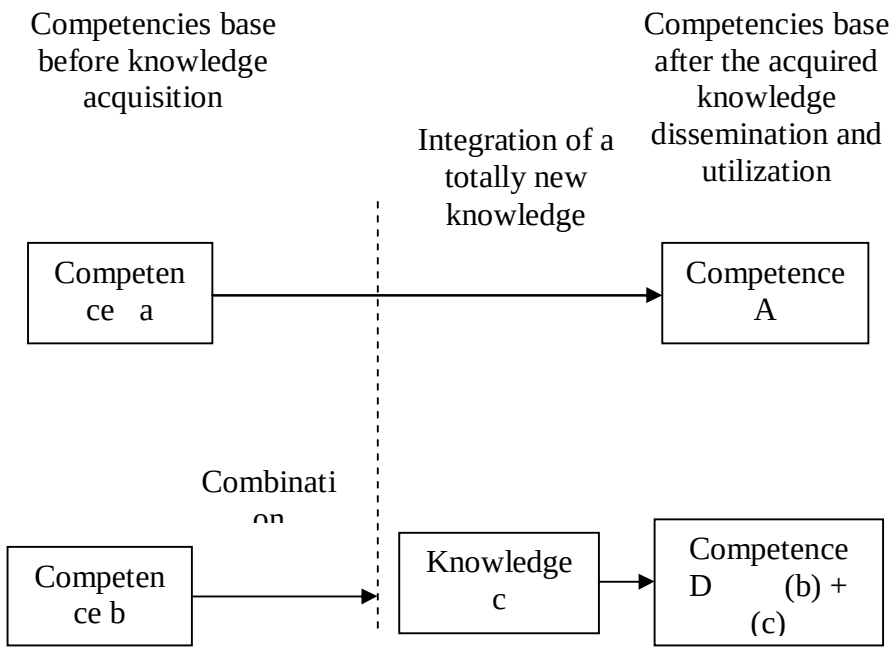

Figure 2: 2isoft competencies building operations

2isoft has built a new competence (competence A) by a full integration of new external knowledge into its own competencies base (competence a). However, this competencies base has not changed dramatically. It also combined the competence already possessed (competence b) with the knowledge that has been acquired outside of the company (knowledge c) to form an entirely a new competence (competence D) by developing new knowledge in collaboration with other members of the value chain. Finally, these competencies built inside by 2isoft have brought qualitative changes in its resources and capabilities. According to the company's CEO, he has achieved the objectives set at the beginning of the relationship. Thus, the ability to design the archiving system of TV commercials and programs helped to greatly improve the company's broadcast operations in the country. The acquisition of antenna sales business practices through the implemented systems constituted new options for further corporate goals. They allowed the company to simply consolidate its market share of the systems and to integrate more value in its solution offerings. Through the partnership, the understanding of programs related to the integration systems and the single interface developed has not only strengthened the firm's competence of cross-system solutions but also its position as a pioneer for this service in the local market.

According to the 2isoft CEO:

"…*It's really a relief. We managed not only to create new competencies through this collaboration but to adapt especially some existing competencies to strengthen our capacities and renew our resources. This is a major contribution to the company's innovation policy introduced three years ago"*.

6. Discussions

The study shows that in this kind of relationship, the competencies building operations are strictly related to the ability of the firm to integrate and disseminate internally the knowledge gained from partners. Repeated use of such knowledge, the success of the strategy to disseminate it, the ability of the engineers to capitalize on the experiences gained and the high level of absorptive capacity favored the company's competencies building. The acquisition of tacit knowledge has created a need for versatile learning (meetings, workshops and mutual visits of engineers in firms. This form of learning has developed social interaction and enhanced the communication level of those involved in the project. It enabled companies to better know each other by developing a mutual identity and engineers to develop a shared mindset. Companies also managed to overcome the complexity posed by certain knowledge by involving competent people in the projects and by giving them the systems development tasks for more efficiency.

The adoption of the learning process phases has not only facilitated the transfer of knowledge flows but also succeeded in reducing the costs associated with the operation. It allowed the company to recognize as much as possible the difficulties that engineers could meet before each phase of the process. Furthermore, the role played by elements of the relational context was essential throughout the learning process. Thus, interdependence, commitment and partners' trust built the foundations for knowledge acquisition - by encouraging companies to cooperate and to make adjustments and investments. This supports the previous work of Madhok and Tallman (1998), Omar et al. (2016). The trust developed during the relationship has significantly reduced the risk of opportunism, uncertainty and costs associated with the project. The results show a correlation between the support structures of the relationship (common infrastructure, governance mode), the shared mindset developed by engineers and the level of tacit knowledge acquisition.

The experience gained in collaborative relationships allowed 2isoft to disseminate the acquired knowledge and to build competencies. It has also allowed the company to find a balance between the exploitation of existing competencies and assets and seizing some new opportunities, confirming the work of Doz (1994) and Borras and Edquist (2013). The role played by the organizational factors was essential for knowledge acquisition and confirms the work of Lane and Lubtakin (1998), Miric et al.(2013) and Rossignoli and Ricciardi (2015). Thus, the analysis of the data shows that the mutual intent to learn, geographical proximity and especially the absorption capacity has positively influenced the partners' interaction and the level of their communication. It also facilitated the learning process.

Finally, the study highlights the importance of additional resources that a firm must seek in inter-organizational relationships or by having an open door to the external environment confirming the previous work of Amit and Schoemaker (1993) and McNaughton and Corazzin (2014).

7. Conclusion

After this analysis, it appears clearly that building competencies by learning external knowledge is an extremely difficult task to perform. The way by which an SME can build competencies are perfectly illustrated in the case studied. Indeed, the results show that the dissemination capacity and knowledge integration are essential to its success. They also reveal some SMEs' ability to acquire complex external or tacit knowledge by using the versatile learning techniques. The acquisition took place in several phases (identification, transmission, processing, storage and retrieval) to facilitate the conduct of the learning process and reduce the costs it has generated.

The results highlighted the importance of certain organizational factors that influenced the learning process. These factors set the basis of inter-organizational learning by motivating companies to become more involved in the realization of the ASS project by promoting transparency and facilitating the understanding between partners. The elements of the relational context allowed 2isoft to organize and manage the collaboration by developing trust, demonstrating its commitment with the adaptations of its resources and by stimulating its learning efforts. However, the main contribution of the study focuses on the methods used to build competencies through an inter-organizational relationship to achieve goals previously defined.

These methods have rarely been put into practice by SMEs as described by Sanchez et al. (1996) and by Sanchez and Heene (1997). In this study, knowledge gained in the relationship was used in the building process. The second feature relates to the inter-organizational learning process for knowledge acquisition and understanding the necessary conditions for its success. However, its weakness is the limited choice of only one company. Future research should expand our knowledge on competencies building methods by using agreater number of companies. They should suggest other directions forSME collaborative relationships coordination for learning and unknown strategies for knowledge dissemination.

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