The knowledge transfer from local parent firm to the joint-venture in the South: examining the determinants factors

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Abstract: Today, more North-South Joint-ventures are initiated mainly to gain greater competitive advantages that will lead to improve performances. A considerable amount of knowledge flows takes place within the joint-venture making it a formidable learning experience within which innovation and competence take place to different degrees. Nevertheless, knowledge transfer in North-South Joint-ventures is not well known and has attracted little interest on the part of researchers both in the North and in the South. This research proposes to fill the gap and explores the knowledge transfer from local parent firm to joint-venture. It addresses the question of what are the determinants of a successful knowledge transfer within a North South joint venture? Using a sample of Tunisian companies, it examines four case studies from various manufacturing sectors, it uses the lexical intensity approach in direct interviews and calculates ratios. The findings indicate four major determinants of successful knowledge transfer: Openness of managers, Intention to learning, size and experience The parent firm and the joint-venture must have them in order to make a success of the transfer of knowledge.

Key Words: Knowledge transfer, Joint-venture, Local parent firm, Performance of joint-venture, Bargaining power, interactive learning

1. Introduction

The creation of a joint-venture between partners usually involves a need for transfer of technology, know-how, information and knowledge. Lyles and Salk (1996) and Anh et al. (2006) studying the transfer of foreign parent firm knowledge from «developed” countries to the international joint-venture, highlighted that the transfer results from the interactions of individuals from the parent companies of “developed” countries who are willing to disseminate and share their knowledge with the staff of the joint-venture. In fact, few studies have highlighted the role of the local parent firm in the transfer process, and have limited this role to its reception capacity (Tsang et al., 2004). Yet, knowledge transfer is no longer simply seen as a one-way movement from the foreign parent firm (the holder of knowledge to be transferred) to the joint-venture. In reality, it refers to a more complex relationship. Indeed, the interdependent links between the parent companies and the joint venture require the transfer between these different parties (the joint venture and the parent companies). Against this backdrop, our research contends that an interactive logic of knowledge transfer predominates within a joint venture framework (the foreign parent firm, the local parent firm and the joint venture), and we have set the following research objective: to explore from this perspective the role of the local parent firm and the determining factors that favour the transfer of knowledge from the parent company to the joint venture.

We have chosen to situate the study in an international context, with a particular focus on Tunisia. It is the first African country to sign a free trade agreement with the European Union and is a member of the World Trade Organization (WTO). In its recent and widely history, (2011) the Tunisian, people in the face of a despotic power, revolted to demand a democracy and since then has made a significant progress towards a serene democracy while facing major economic challenges as well as socio-political ones. One of the objectives has been to diversify its economy and namely make it less vulnerable to the variation of tourism activities on which it has been heavily relying in its economic model. In order to succeed this transformation, the State has been enhancing the global restructuring of domestic companies through upgrading programs and a policy that encourages partnership with foreign companies in order to raise their level of competitiveness. Despite the difficulties of the post-revolutionary period, the country holds comparative advantages which play in favour of the attraction of foreign investors. Amongst these advantages we could mention: the geographical proximity Europe, the freedom of capital transfers, a diversified and well qualified labour the location in the North African region which gives a relatively good access to the rest of the African continent a free trade agreement with the European Union (EU), a relatively simplified administrative system and several incentives to attract foreign investors. According to the index of economic freedom for the year 2015, Tunisia has the
107th free economy in the world. Its score is 0.4 points higher than last year, with improvements in controlling its spending and in fighting corruption. While the inflow of FDIs as a percentage of Gross Capital formation has not known a high progress, the stock of FDIs as a percentage of GDP remains significantly high. (table 1)

Table 1: Foreign direct investment flows to the Tunisian economy.

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inward FDI flows</strong></td>
<td>1.11</td>
<td>1.063</td>
<td>1.002</td>
</tr>
<tr>
<td><strong>FDI stock (USD million)</strong></td>
<td>33.001</td>
<td>31.554</td>
<td>32.911</td>
</tr>
<tr>
<td><strong>Number of investments</strong></td>
<td>20</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td><strong>Greenfield (1)</strong></td>
<td>11.0</td>
<td>10.9</td>
<td>11.6</td>
</tr>
<tr>
<td><strong>Stock of FDI (as % of GDP)</strong></td>
<td>71.3</td>
<td>66.3</td>
<td>75.5</td>
</tr>
</tbody>
</table>

Source: UNCTAD (2016)
(1) -The Greenfield investments correspond to the creation of subsidiaries ex-nihilo by the parent firm
(2) -Gross fixed capital formation (GFCF) is an indicator measuring the sum of investments, mainly material, made during a year.

2. Literature review

The international joint venture is a legal and distinct organizational entity created by independent firms (generally two or three partners), by transferring a fraction of their resources (financial, human, knowledge, etc.) To achieve a certain complementarity which helps to achieve common objectives (Jolly, 2001). through the creation of this form of cooperation, parent companies seek to share interests and complement their needs while preserving the autonomy and legal responsibility of the joint venture. Parent companies are by definition all holders of a share of capital according to their contributions. They exercise collective control. Profit is allocated to each parent firm in proportion to its contribute on. There are several reasons for the decision to cooperate in the form of a joint venture. First, there are strategic reasons which the consolidation of the strategic position, the creation of values, learning and knowledge transfer and a means of overcoming legal and cultural constraints.

The joint venture between a firm in a developing country and a parent firm in a developed country allows, under certain conditions, the transfer of know-how and industrial technology and allow the acquisition of management and organization of production skills by the local firm. This form of cooperation can generate greater involvement of the foreign investor in the projects concerned. Similarly, the joint venture can guarantee business opportunities others than the local market (e.g. Neighbouring countries). This type of cooperation presents considerable interest to the foreign partner in more than one way. 1/He could have access to new markets and eventually consolidates its competitive position. 2/It could q use the skills of the local parent company (knowledge of the legal, political, economic, social and cultural context) to have a better insight of the regional context.3/ It could give more direct and easier access to local natural resources. Finally, this form of cooperation offers the
possibility of sharing risks and gains with local partners. When a joint venture is created, it is essential that parent companies do not view its creation as an objective in itself but as a means of facilitating the implementation of their own strategic objectives.

Concerning the concept of knowledge transfer, the latter has been the object of several theoretical and empirical studies, whether at the intra-organizational or inter-organizational level. However, it remains a difficult concept to define. Wang et al. (2004 p. 173) consider the transfer of knowledge as "a process of systematically organized exchange of information and skills between entities". As for Argote and Ingram (2000 p.151), they point out that "Knowledge transfer in organizations is the process through which the individual is affected by the experience of another". These two authors consider that the knowledge within an organization is embedded in three types of reservoirs: members (the human component), tools (the technological component) and tasks (the objectives, intentions and goals component). Thus, they consider the organization as a set of combinations of networks and sub-networks connecting the different types of reservoirs. From this perspective, the transfer of knowledge takes place through the displacement of a reservoir of knowledge from one unit to another or by modifying a reservoir of knowledge within the receiving entity.

Although this conceptual framework has been developed in an intra-organizational context, it could help understand transfer at the inter-organizational level (Carley and Hill, 2001). Knowledge transfer is considered an indispensable step in a process of knowledge management (Inkpen and Dinur 1998). Based on the premise that knowledge can be transferred, distributed and newly created, individuals within or between organizations can ensure replication (reproduction) and integration (combination) of knowledge (Kogut and Zander, 1992).

In a joint-venture context, Lyles and Salk (1996) state that "... foreign parents are seen as reservoirs of both technical know-how and managerial (process-related) knowledge". (P.4)

Looking at it closely, the existing literature on the phenomenon of knowledge transfer within a joint venture framework can be categorized into two groups. The first group studied the transfer of parent companies to the joint venture. This work has shown that this form of cooperation can be, under certain conditions, a space that responds to principles of learning organization and can be considered as a vector of transfer of knowledge of parent companies to the joint venture. This form of cooperation can be a space for learning and fertilizing knowledge, allowing better confrontation and improved articulation between the staff of the joint venture and that of the parent companies. In reality, the structure of the joint venture allows the presence of staff from the local parent firm, which promotes face-to-face contact and communication that helps to cope with the subllest aspects of the knowledge to be transferred and which Favours the internalization of knowledge by a parent firm. (Simonin 2004, Oxley and Wanda (2009), Fang and Zou 2010, Chen, Chen and Choi and Ku, 2012, Beamish and Dutta 2013).

The second group focused on the reciprocal transfer of knowledge from the joint venture to the parent companies. Staff are exposed to the ideas, concepts and new working methods of the parent companies. It can also develop on-the-job learning according to the DUI (Doing Using Interacting) principle of the Aalborg school (Lundvall, 2003) develop own skills. The staff of the joint venture acquires and develops knowledge through the presence of the staff of the parent companies in the joint venture, who possess special expertise (Yong et al., 2015). The joint venture can thus be an important vehicle for acquiring knowledge for parent companies. In some cases, parent companies can exchange information and knowledge directly between them. (Inkpen and Dinur 1998, Beamish and Berdrow 2003, Michailova and Mustaffa 2012 and Rabbiosi and Santangelo 2013).

Most of the work done in the context of developing countries examined the knowledge transfer process of the parent firm from a developed country to the joint venture in a developing country (Lyles and Salk 1996, Tsang, Nguyen and Erramilli, 2004). This work generally neglects the role of the local parent firm in the transfer process as a whole. Few studies have looked at the transfer of knowledge from the local parent firm to the joint venture. In fact, the knowledge, expertise and experience of a local parent firm constitute sometimes an important incentive for a foreign firm to create a joint venture with the local firm (Immelt and AL, 2009).
3. The conceptual framework

The creation of the joint venture is often part of the strategic orientations of parent companies. As mentioned earlier, the study of the phenomenon of knowledge transfer must respect this specificity and must take into account the interdependencies and interfaces that exist between the local parent firm and the joint venture itself.

3.1. Characteristics of the local parent firm

The opening of the leaders
In a joint-venture context, Inkpen (2000) defines openness as "the willingness and ability of joint ventures to share information and communicate openly". The open-mindedness of the partners' leaders is a fundamental element in ensuring communication in a learning context (Hamel, 1991). Hamel (1991) states that in a context of strategic alliances, partners may sometimes be less transparent or open than others. Gupta (1987) states that open-mindedness reflected the degree to which the relations between the parties were open and without protocols and that openness in such a relationship offers a spontaneous and open exchange of information and ideas. In this sense Pisano (1988) indicates that the ability to learn through a joint venture structure does not depend simply on the absorptive capacity of the partners; It also depends on the willingness to cooperate and a good level of openness of the stakeholders' minds in the transfer process.

Learning Intent of members: Hamel (1991) defined the learning intent of personnel in a firm such as: "A firm's initial propensity to view collaboration as an opportunity to learn." (Pp. 89-90). In an inter-organizational arrangement such as a joint venture, the intent to learn of the leaders of an organization includes both the motivation and willingness of staff to learn from the partner (Hamel, 1991). According to Beamish and Berdrow (2003), the learning intent of local parent firm managers will affect the resources that parent companies transfer to the joint venture, the controls on these activities, the mode of assessment of performances, the results, as well as the level of learning between the joint entity and the parent companies.

Experience in the field of cooperation: By studying some cases of international joint ventures, Simonin (1999b) found that if the parent firm has experience in working with foreign partners, this experience will facilitate the transfer of knowledge in the event of a possible cooperation and in particular in marketing knowledge. He also noted that experience in the field of knowledge transfer is seen as an important factor in its success. When a firm begins to collaborate, it develops an experience of cooperation and a reputation as a good partner (Powel et al., 1996). This experience also allows the local parent firm to better manage the opportunistic behaviour of the foreign parent firm and reduce the risk of domination in the context of cooperation. Simonin (1999a) has shown that the previous experiences of partners in any field help to control the ambiguity of knowledge and subsequently help to promote the transfer of knowledge between partners. Thus, the more a firm is involved in cooperation projects, the higher the absorption capacity and the successful transfer of knowledge (Simonin, 2004).

Size of local parent firm: The research of Hagedoorn and Schakenraad (1994) highlighted a significant link between the size of the local parent firm and the intensity of the cooperation strategy. In fact, the organizational learning of the joint venture can be better enhanced by the size of the local parent companies. This influence can be explained by the fact that large local parent companies often have the financial resources and development potential that can support the knowledge transfer process through their long-term commitments cantered on employee skills development and the operational activities of the joint ventures.

3.2. The characteristics of the joint venture
Four elements appear to be relevant to our research topic: age, performances, absorptive capacity and learning motivations:

**Age:** Several authors have shown that the age of the joint venture positively influences the knowledge transfer process, the performance of joint ventures and the managers’ perception of the success of the joint venture (Geringer and Hébert, 1991). Generally, the start-up phase is a difficult phase for the managers of the joint venture. The staff of the parent companies encounter difficulties, misunderstandings or conflicts during the start-up of their joint units. With the effect of time and mutual collaboration, the transfer of knowledge between partners can, under certain conditions, be realized through this form of cooperation (Inkpen, 2000).

**Performance of the joint venture:** The research results of Lyles and Salk (1996) suggest that we examine performance in two ways: economic performance and human resource management performance. The link between the transfer and the performance of the joint venture is not yet confirmed in the literature: positive, negative, and non-significant results have been found in several previous studies (Lyles and Salk, 1996; Beamish and Berdrow, 2003). As for us, we will propose to test the positive effect of a good performance of the joint venture on the transfer of knowledge between the different parties (the parent companies and the joint venture). The validity of the proposal will be verified at a later stage in the field.

**Absorptive capacity:** Cohen and Levinthal (1990) define absorptive capacity as "the ability to assume the value of new, external information, assimilate it and apply it to commercial ends." This capacity intervenes at the level of the receiver allowing it to take advantage and exploit the knowledge provided by his partner. In a joint-venture context, absorptive capacity is the skill that affects a firm's ability to learn. This is shown by, the results of Inkpen (1997) which support the idea that active participation in management and training by parent companies can, not only improve the absorptive capacity of partners, but also provide the means to transfer knowledge. As a result, by working more creatively and combining existing knowledge and transferred knowledge, the absorptive capacity of the joint venture and that of the parent companies greatly promote the success of the knowledge transfer process (Lyles Et al., 2003).

**Learning motivation:** Hurst et al. (1989) consider that motivation, imagination, planning and experience are necessary variables that complement each other to ensure the successful transfer of knowledge. In reality, the motivation for learning needs to be translated into the field through actions that encourage and support learning and dissemination of knowledge between parent companies and the joint venture. Wang et al. (2004) showed that the higher the link between the reward of individuals and their learning outcomes, the higher the level of knowledge transfer between the parent companies and the joint venture.

3.3. Characteristics related to the relationship between partners:

A brief review of the literature indicates that four elements play a significant role in the relationship: mutual trust, the ability to resolve mutual conflicts, the quality of contributions from parent companies and the power of negotiation between partners

**Mutual trust:** Trust between alliance partners has been identified as an important element in collaborative activity (Gulati, 1995). Difficulties in strategic alliances often stem from a lack of trust between partners (Powel et al., 1996). Zand (1972) states that without trust, information exchanged between parent companies either directly or through the joint venture may not be highly accurate, complete, or timely because partners are sometimes reluctant to take the risks associated with the sharing of important information. Lyles et al. (2003) confirm that trust contributes to the creation of an atmosphere of openness and knowledge exchange because partners do not consider protection measures necessary to prevent opportunistic behaviour.
**Ability to resolve mutual conflicts:** A relationship of understanding between business leaders is a factor that can play an important role in resolving disputes between decision makers in a joint venture setting. In a joint venture, conflicts between parent companies may prevent the sharing of information and the exchange of knowledge between them and the joint venture and may be a hindrance to the transfer of knowledge between the different parties. Given that conflict is almost inevitable in an association, the question of how such a conflict is resolved becomes important. The interventions of the partners in an informal framework (friendship relations) sometimes resolve certain conflicts.

**Quality of contributions from parent companies:** When the joint venture is endowed with quality inputs from parent companies (sophisticated technologies, distinctive know-how, modern equipment and work tools, high value-added knowledge), it can promote the learning of knowledge within its network. These socialized and internalized contributions in the parent companies and the joint venture can create potential for further developments of knowledge with high value. Several studies (Lyles and Salk, 1996; Tsang et al., 2004) highlight the importance of the quality of parent firm contributions in a knowledge transfer process.

**Negotiation power between partners:** When a joint venture is formed, the relative bargaining power of partners is determined primarily by the contribution of each partner to the joint venture (Harrigan and Newman, 1990). Hamel (1991) found that the more a partner's learning progresses through a strategic alliance, the more the latter's negotiating power develops over time. In reality, partners' contributions are rarely symmetrical. With a variation in the equilibrium of forces, the need for cooperation between partners may diminish or disappear altogether. The balance of bargaining power between partners can be seen as a factor that can positively or negatively affect learning and knowledge transfer.

3.4. **The characteristics related to the strategic, cultural and organizational dimensions:**

Three elements appear to play an important role in the literature: Strategic compatibility, cultural compatibility, and organizational compatibility:

**Strategic Compatibility:** The dual dependence of the joint venture on parent companies sometimes leads to difficulties in setting the objectives of the joint venture since the joint venture must take account of the interests of the different parties and try to ensure a certain compatibility between the expectations of the parties involved. Inkpen (1995) found that joint ventures that are weakly linked to parent firm strategies do not allow for a high level of knowledge transfer, while joint ventures that are strategically important to parent companies offer significant opportunities for cross- interactions and increase learning potential. Thus, in order to promote the sharing of knowledge between the joint venture and the parent companies, the latter must ensure a minimum of strategic compatibility.

**Cultural compatibility:** According to Killing (1983), most of the problems produced in joint ventures are of cultural origin. The national and organizational cultures of the partners influence the different aspects of collaboration, including the process of knowledge transfer. This opinion is also shared by Lyles and Salk (1996), who report that not only conflicts but also cultural misunderstandings rooted in cultural differences can reduce the sharing of knowledge to the minimum. So it is quite obvious that partners must take these differences into account to prevent difficulties that can block the process of knowledge transfer.

**Organizational compatibility:** Szulanski (1996) points out that the more different the organizational contexts, the greater the risk of problems occurring, and the greater the need to adjust the transferred knowledge. Inkpen and Dinur (1998) proposed a model that shows that the compatibility of organizational contexts is a necessary condition for successful knowledge transfer. In this sense, Simonin (1999a) also showed that the higher the organizational distance, the higher the level of ambiguity of the knowledge to be transferred, which will not favour its transfer. In reality,
incompatibility between organizational contexts can lead to serious divergences between the different partners of the joint venture, which, in turn, can negatively influence the transfer of knowledge.

3.5. The characteristics of the communication supports of the transfer mechanism

Previous work points out to two major communication supports of the transfer mechanism: the use of ICTs and the face to face interaction. These are also more and more key elements in interactive learning and often complement each other for the successful conduct of a business relationship.

Information and communication technologies (ICTs): The use of ICTs favours the codification of a large part of tacit knowledge, ensures the transfer of explicit knowledge and offers the possibility of bypassing, at least partially, the need for face-to-face interaction by developing virtual links or creation of virtual interactions. ICTs could help achieve several objectives perceived in the literature (Foray 2000): they are first means of reducing codifying costs; second, they allow the codification of complex knowledge with a more or less tacit aspect; and third, they can be a support for a new virtual communication. Similarly, these types of technologies promote coordination through mutual adjustment by facilitating the exchange and transfer of explicit knowledge between parent firm and the joint venture personnel. Indeed, the more these tools provide synchronous and uncodified relationships between the personnel of the different parties, the more these tools come close to face-to-face relationships.

Face-to-face interaction: Nonaka (1994) emphasizes that individual knowledge remains personal unless it is amplified and articulated through social interaction. Staff movements between the parent firm and the joint venture promote interaction and help to understand multi-faceted activities and make knowledge more fluid and easier to apply (Nonaka, 1994). For Powell et al. (1996), learning is seen as a process of social construction where knowledge is transferred into a social community context. The interdependent relationships between the parent companies and the joint venture provide face-to-face interaction and closer working relationships that can facilitate the sharing of individual and collective knowledge.

3.6. List of propositions and key variables

On the basis of the previous analysis, we can make five propositions which will serve as hypothesis and guide our analysis. The successful transfer of knowledge from local parent firm to the joint venture being the dependant variable, we have outline 18 independent variables which have a significant influence on the main dependant variable; They can be grouped into 5 proposals as outlined in the literature seen above (table 2).

Table 2: Determinants of the successful transfer of knowledge from the local parent firm to the joint venture

<table>
<thead>
<tr>
<th>Proposals</th>
<th>Independent variables with positive influence on the dependant variable</th>
<th>Dependant variable</th>
<th>Number of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leadership openness, intent to learn, experience in the area of co-operation, and the size of the local parent firm</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>the ability to absorb, the motivation for learning, the joint venture</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>
3. the successful transfer of knowledge from the local parent firm to the joint venture

4. Strategically, culturally, and organizationally compatible between parent companies

5. The use of information and communication technologies and face-to-face interaction positively influence the transfer of knowledge from the local parent firm to the joint venture.

Source: the authors

4. The empirical framework

4.1. Methodology

The methodological approach used in this research is the multiple case study approach. This study focuses on four joint ventures installed in Tunisia and selected respectively in the four different fields of activity that are electronics, telecommunications, manufacturing of equipment and agro-food. The choice of these four cases corresponds to the range of industries recommended by Yin (1994). This study is constructed using data from forty-seven individual interviews. A diversified population of employees has been selected, from both parent companies and joint ventures, ranging from the primary manager to the execution staff, in order to gain a more accurate and precise view of the phenomenon of knowledge transfer. Table 3 shows the structure of the sample.

Table 3: Structure of the sample.

<table>
<thead>
<tr>
<th>Case N° 1: JV1</th>
<th>Case N°2: JV2</th>
<th>Case N°3: JV3</th>
<th>Case N°4: JV4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector of activity</td>
<td>Electronics</td>
<td>Food industry</td>
<td>Machines for the food industry</td>
</tr>
<tr>
<td>Capital (DT)</td>
<td>1 500 000</td>
<td>21 120 000</td>
<td>4 450 000</td>
</tr>
<tr>
<td>Nationality of foreign parent firm</td>
<td>French Group</td>
<td>French Group</td>
<td>Italian Group</td>
</tr>
<tr>
<td>Local parent firm</td>
<td>Tunisian S.M.E</td>
<td>Tunisian Group</td>
<td>Tunisian Group</td>
</tr>
<tr>
<td>Share Capital</td>
<td>40 % local 60% Foreign</td>
<td>51 % local 49% Foreign</td>
<td>70 % local 30 % Foreign</td>
</tr>
</tbody>
</table>
These data were analysed by a somewhat different method called «lexical intensity » and which consists of estimating the proportion of the responses that refers to a given theme using the SPHINX software. This method, while pertaining to the world of linguists, has been used in other fields such as economics and management amongst other disciplines. Thus Chanal and Moscarola (1998) use it in innovation studies while Gavard-Perret, and Moscarola, (1995) use it in the field of management. Each theme is associated with a word, a series of words or expressions which constitute as many traces (or significant indices) to indicate the presence of this theme in the interview. Thus the lexical intensity of a theme is equal to the ratio between the number of words and phrases belonging to the lexical field of this theme and the total number of words and phrases used in the interview. In other words, the lexical intensity is calculated as follows: Number of words present in the answer belonging to the dictionary of the subject of which one measures divided by the intensity or total word count of the answer. It can be shown in a simple equation as follows:

\[ \text{Lit} = \frac{\text{Nbt}}{\text{Tnb}} \times 100 \]

Lit: represent the lexical intensity coefficient
Nbt: represents the number of words related to the theme
Tnb: represents the total number of words

Lit is an indicator in terms of speech acts of the presence of the theme in the utterance. The higher it is, the more relevant the theme can be considered important to the respondent. The lexical intensity measures the weight of the theme in the answer. The average lexical intensity for all interviews will also be given by theme. Through this method, one can go beyond the presence or absence of the theme. This indicator measures the relative importance of a theme.

In addition, correlation coefficients have been calculated to show the relationship between the knowledge transfer intensity as a dependant variable and a battery of factors which have been highlighted in the literature as having significant relationship with the dependant variable. We used the Pearson Correlation coefficient to indicate both strength of the relationship and direction of influence.

4.2. Results

4.2.1. Factors influencing the transfer of knowledge from the local parent firm to the joint venture

The majority of interviewees pointed out that the local parent firm is actively involved in market research through knowledge related to the commercial field. The contributions are even technical in nature, as indicated by the majority of respondents (83%) (see Table 1). In fact, the contribution of the Tunisian parent firm goes beyond the technical field: it is essential to ensure the day-to-day management of the joint venture. The collaboration between the staff of the local parent firm and the staff of the joint venture has made it possible to realize a certain level of synergy which ensures the performance and durability of the joint venture. In general, local parent companies have managed to transfer their experiences and knowledge to the joint ventures. The mastery of the Tunisian context and the ability to manipulate the specificities of the business world in Tunisia are amongst this knowledge. The direct contribution of the local parent firm to the day-to-day management of the joint venture must be noted. Generally, the executives of the joint venture, coming from the local parent companies, possess knowledge and
experience related to the field of activity of the joint venture and tend to ensure the operation of the joint venture. As a result, the heads of the foreign parent firm insist that their interventions should be limited only to handling the large files of the joint venture. The transfer of knowledge from the local parent firm to the joint venture is carried out either directly or indirectly through collaboration with the foreign parent firm.

The contribution of Tunisian skills to the design of the products of the joint venture is therefore essential to create products that are adapted to the needs of Tunisian consumers and even to those in neighbouring countries. The local parent firm ensures the trust and stability of the staff recruited during the creation phase of the joint venture. It is the guarantor of the staff. The executives of the local parent firm have an important role during the constitution of the joint venture: In fact, the Tunisian parent companies have invested heavily in training. Our results show that, in several situations, foreign parent companies rely on the contributions of local parent companies to develop partnerships in other countries in the region. The contributions of the local parent firm are highlighted by several factors, including the performance of the joint venture. Indeed, the more the joint venture demonstrates good performances and economic efficiency, the more the contribution of local parent companies increases in terms of quality especially in the case of large concerns. A factor which is more decisive in the success of knowledge transfer in the eyes of the interviewees is the size of the local parent company, in this sense the bigger its size, the more balanced the power of negotiations between the two partners to provide the conditions conducive to the stability and success of the joint venture. These characteristics appear to be acting in favour of the transfer of knowledge to joint ventures, especially when they are in strategic compatibility. In other words, the other factors are complemented by the harmonious and coordinated setting of strategic orientations between the different parties. In addition, there is a relationship based on mutual trust, which creates greater transparency among the actors involved in the transfer process and which also reduces the risk of opportunistic behaviour and strengthens the dissemination of knowledge with high added value. Table 1 relates to the Number of interviews in which the listed topics are cited in the case of parent companies while Table 2 relates to the lexical intensities characterizing the average importance of the subjects covered in the interviews in the case of local parent company.

The more the persons involved have friendly and transparent relationships based on mutual trust, the more the exchange of information is made easier. The vast majority (83%) confirmed that local parent companies have contributed to the successful transfer of knowledge to joint ventures (table 4).

Table 4: The weight of topics related to the contribution of local parent companies

<table>
<thead>
<tr>
<th>Tr-Conn (Knowledge Transfer)</th>
<th>Numbers</th>
<th>% obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39</td>
<td>83%</td>
</tr>
<tr>
<td>Theme</td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Pfce-Jv (Performance of the joint venture)</td>
<td>34</td>
<td>72%</td>
</tr>
<tr>
<td>Taill-Ent-Loc (Size of local parent firm)</td>
<td>32</td>
<td>68%</td>
</tr>
<tr>
<td>Pouv-Neg-Part (Equilibrium of negotiating power between partners)</td>
<td>30</td>
<td>64%</td>
</tr>
<tr>
<td>Comp-Strag (Strategic Compatibility)</td>
<td>30</td>
<td>64%</td>
</tr>
<tr>
<td>Conf-Mut (mutual trust)</td>
<td>28</td>
<td>60%</td>
</tr>
<tr>
<td>Ouv-Dirg-Loc (Openness of local managers)</td>
<td>25</td>
<td>53%</td>
</tr>
<tr>
<td>Qual-Contri (Quality of partner contributions)</td>
<td>24</td>
<td>51%</td>
</tr>
<tr>
<td>Contx-Tun (Mastery of the Tunisian context)</td>
<td>20</td>
<td>43%</td>
</tr>
<tr>
<td>Rela-Inf-asso (Informal relationship between partners)</td>
<td>19</td>
<td>40%</td>
</tr>
<tr>
<td>Comp-Cult (Cultural Compatibility)</td>
<td>18</td>
<td>38%</td>
</tr>
<tr>
<td>Exp-Ent-loc (Experience of the local parent firm)</td>
<td>17</td>
<td>36%</td>
</tr>
<tr>
<td>Comp-Org (Organizational Compatibility)</td>
<td>16</td>
<td>34%</td>
</tr>
<tr>
<td>Intera-F2F (face-to-face interaction)</td>
<td>13</td>
<td>28%</td>
</tr>
<tr>
<td>Perct-Fila (Perception of the joint venture as a subsidiary of the foreign parent firm)</td>
<td>13</td>
<td>28%</td>
</tr>
<tr>
<td>Cost (Cost of Knowledge Transfer)</td>
<td>12</td>
<td>26%</td>
</tr>
<tr>
<td>Val-Strag-Conn (Strategic value of knowledge to be transferred)</td>
<td>12</td>
<td>26%</td>
</tr>
<tr>
<td>Volon-TR-Etg (Willingness of foreign parent firm to transfer knowledge)</td>
<td>11</td>
<td>23%</td>
</tr>
<tr>
<td>Intent-Appr-Loc (Learning intention of local parent firm executives)</td>
<td>10</td>
<td>21%</td>
</tr>
<tr>
<td>Format (Training)</td>
<td>8</td>
<td>17%</td>
</tr>
<tr>
<td>Tacitss-Conn (Tacit aspect of the knowledge to be transferred)</td>
<td>7</td>
<td>15%</td>
</tr>
<tr>
<td>Age-Jv (Age of the joint venture)</td>
<td>6</td>
<td>13%</td>
</tr>
<tr>
<td>Cap-abs-jv (Ability of the joint venture to absorb knowledge)</td>
<td>6</td>
<td>13%</td>
</tr>
<tr>
<td>Comm-Tic (Communication and ICT)</td>
<td>6</td>
<td>13%</td>
</tr>
<tr>
<td>Time</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Contr-etrng (Control of the joint venture by the foreign parent firm)</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>March-Afr (African Market)</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Ambg-Conn (Ambiguity of knowledge to be transferred)</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Complx-Conn (Complexity of knowledge to be transferred)</td>
<td>2</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: calculated by the authors

Table 5: the weight of themes according to lexical intensities in the case of local parent firm (percentages)
The contribution of the local parent companies is highlighted by several factors, including the performance of the joint venture (2.48%). In reality, when the joint venture achieves economic performance, the contribution of local parent companies becomes of higher-quality (1.15%), especially when companies are large. Another factor, which is more influential in the success of the phenomenon of transfer to the interviewees, is the size of the local parent firm (2.40%): the greater the size of the joint venture, the more balanced the negotiating power (1.85%) between the two partners to provide favourable conditions for the functioning of the joint ventures, the higher their stability and the transfer of Know-how necessary for their functioning. This certainly improves the ability of joint-venture managers to solve problems and create a work environment conducive to improved performance.
These characteristics appear to be factors acting in favour of the transfer of knowledge to joint ventures particularly when there is strategic compatibility (2.03%). In other words, the harmonious and coordinated fixing of strategic objectives between the different parties complements and strengthens the other factors. This could lead to a certain balance of bargaining power between the various parties involved, thereby strengthening the transfer phenomenon more advantageously.

In addition, there is mutual trust (1.53%), which allows for greater transparency between the actors involved in the transfer process and which also reduces the risk of opportunistic behaviour. The more friendly and transparent the relationship between the representatives of the partners the more the relationship is based on mutual trust, the easier the exchange of information and knowledge is. This can contribute a great deal to accelerate the circulation of documents, and the exchange of information and will make the transfer easier, especially when local leaders are more open-minded (1.00%).

It is interesting to note at this level that knowledge, which is at the heart of the transfer process, is not only technical or strategic but globally complex and difficult to transfer under usual conditions. This could be seen as a special case and therefore could be explained by the specificities of the companies surveyed (size, activity, market ...) and the particular context in which it operates. In fact, the mastery of the business environment in Tunisia (0.96%) appears to be an explanatory factor for the transfer of knowledge between the Tunisian parent companies and the joint-ventures in the sense that there is, in some way, a cultural complementarity (1.02%) and a mutual understanding of the requirements of the targeted markets.

These interactions can be better apprehended when put in a graph (figure 1). It gives an account of the correlations of the factors with the strongest association with the dependant variable which is knowledge transfer as mentioned earlier. The correlation coefficient shows the strength of the relationship between the dependant variable which has a high lexical intensity and the other independent variables listed in table 1. We decided to retain only the most significant calculated coefficients. Figure 1 shows the correlations of factors that have the greatest influence on knowledge transfer. In effect, the correlation coefficient indicates the force of association as well as the direction of influence. This is the Pearson correlation indicator indicated by « r ». Indeed, a positive coefficient indicates that the higher the intensity of the factor, the more it will facilitate the transfer of knowledge. On the contrary, the bond is negative if the coefficient is negative.

Figure 1: Determinants of successful knowledge transfer from the local parent firm to the joint venture

In Figure 1, weak correlation coefficients (r <0.20) are not represented and are considered weak or statistically non-significant relationships. This association is taken in the direction of influence of the factors in question with the dependent variable (the transfer of knowledge).
The first observation concerns the presence of significant links between the degree of openness of the managers of the local parent companies \( (r = +0.67) \), the balance of negotiating power between the managers of the firms- \( (r = +0.66) \), cultural compatibility \( (r = +0.36) \), and control of the specific characteristics of the business context in Tunisia \( (r = +0.47) \) on one hand and the Transfer of knowledge on the other. These positive and significant correlations between these four variables and the transfer of knowledge may explain the success of the knowledge transfer phenomenon of local parent companies to the joint venture. The interesting thing is that the specificities of the business context in Tunisia appear as an explanatory factor for the relationship between the Tunisian parent companies and the joint ventures as mentioned earlier.

This could lead not only to an opening up of leaders to their common requirements and constraints, but also to a certain balance of bargaining power between them in terms of market knowledge and mastery of production processes and work. The results show that the local parent firm is actively involved in the successful transfer of knowledge to the joint venture. She has generally transferred her knowledge and experience to the joint venture. These are real contributions in terms of understanding the context of local and regional affairs, prospecting and marketing, knowledge of the specificity of the Tunisian market. They also offer expertise and rich experience in the field of activities of the joint venture. There is also the direct contribution of local parent companies in the day-to-day management of joint ventures. In fact, this assistance to the joint venture in terms of day-to-day management is seen as an important contribution from local parent companies. The size of the local parent firm, the open-mindedness of its managers, and a good grasp of the local business environment are key factors in the transfer process.

The interactions between the explanatory factors relating to the local parent firm can be further clarified. Concerning the local parent companies, the correlation matrix reveals several relationships. By way of illustration, figure 2 shows, on the basis of the correlation matrix between the factors and the knowledge transfer, the relations of influence between some factors (weak relations where \( r < 0.4 \) are not represented). Two main types of relations of influence could be revealed: linear or simple relations and multidirectional or complex relations.

**Figure 2: System of relations between explanatory (independent) factors (variables)**
Source: calculated by the authors

**Simple interactions:** examples of linear relationships between explanatory factors:
These strong positive correlation coefficients show the existence of reciprocal impacts between at least two selected factors. For example, it can be argued that, depending on the level of control exercised by the foreign parent undertaking, a co-operation requirement has arisen which is conducive to the existence of mutual trust between the various actors. This makes it possible to develop the capacity of the joint venture to absorb the transferred know-how until it is appropriated and adapted to its functioning. Note also that the more efficient the joint venture, the faster the transfer of knowledge. On the other hand, the perception of the joint venture as a subsidiary of the foreign parent firm explains the adoption by the management of the joint venture of the same organizational design and management system as those of the parent firm. Finally, training is all the more beneficial in terms of knowledge transfer as it relies on interpersonal interactions between employees of different companies.

**Complex interactions:** nonlinear relationships between explanatory factors
In this example, it is very clear that, in the Tunisian context, knowledge transfer requires, among other things, the open-mindedness of the managers of local companies towards new trends and managerial practices and the new technologies developed by foreign companies Those of the partner. But this requires a balance of power in terms of decision-making to build negotiating capacities with their foreign counterparts.

**Table 6: Factors related to local parent firms influencing knowledge transfer**
<table>
<thead>
<tr>
<th>Joint-ventures (JV)</th>
<th>Contributions of Local partner firm</th>
<th>Factors related to local partner firm</th>
<th>Observations</th>
</tr>
</thead>
</table>
| JV1                 | • Commercial and marketing contribution (specificities of the Tunisian context, (prospecting, marketing and marketing ...).  
• Expertise and experience rich in the field of activity of the JV1.  
• Assistance in management (administration, recruitment, etc.).  
• Possibility to acquire specific skills in the local parent firm for the JV1.  
• Intervention of managers to help detect and solve problems within the JV1.  
• Putting its capacities and resources at the disposal of the JV1. | • Openness of managers  
• Intention to learning  
• Experience (ex: mastery of the Tunisian business context) | Knowledge transferred are rather technical, managerial, marketing ... |
| JV2                 | • Commitment to ensuring the confidence and stability of the JV2 and recruitment of more experienced employees  
• Prepared to share knowledge and knowledge of the local market.  
• Share expertise in marketing and marketing.  
• Cultural adaptation efforts of employees of the joint venture 2 through training and internships (minimizing anxiety and resistance to change ...). | • Openness of managers  
• Intention to learning  
• Size (a large Tunisian group)  
• Experience (Ex: mastery of the Tunisian business context) | Knowledge transferred are rather contextual, marketing, managerial ... |
| JV3                 | • Engagement of engineers of the Tunisian partner  
• Technical assistance: intervention through modifications and improvements and proposal of solutions that adapt to Tunisian customers.  
• Unfavourable industrial environment, lack of a local network of subcontractors and a very small market. | • Openness of managers  
• Intention to learning  
• Size  
• Experience (Ex: mastery of the Tunisian business context) | Knowledge transferred are rather technical, commercial ... |
| JV4                 | • The local partner's firm will to engage in a joint venture partnership, assembly and start-up assistance for the joint venture 4.  
• Provide the joint venture with the resources and know-how necessary for its development.  
• Significant investment in training and work placements as well as empowering employees of joint venture 4 to make them learn.  
• Knowledge and control of the Tunisian market environment.  
• Development of new activities, new projects, new products and entry into new market segments.  
• Communication problem for solving socio-technical problems.  
• Opening of management | • Openness of managers  
• Intention to learning  
• Experience (ex: mastery of the Tunisian business context) | Knowledge transferred is more contextual, marketing, technological, managerial ... |

Source: the authors
5. Discussion

In the era of openness and globalization, fierce competition on innovation requires that firms in the South build adequate competences to be able to enter the game particularly in the manufacturing sector. The joint-venture appears to be one of the privileged means to benefit from knowledge transfer as a means to build competencies and capacities to compete and to have access to latest technologies. Unlike previous studies, where knowledge transfer is seen as a one process, we have adopted in this research a two-way process in the interactive learning dynamics developed by evolutionary economics. As seen in this analysis, this transfer occurs in a complex set-up where the main partners to the joint venture include foreign parent but also local parent companies as an intermediary to knowledge flow to the local partners. The general question that guided our exploratory thinking was to know, first, what is the role of the local parent firm in the transfer of knowledge within joint ventures. Second, what factors determine the transfer of knowledge from the local parent firm to the joint venture. The work approach was based on a theoretical anchor from which research proposals to be verified empirically and from an empirical study that processes the data collected from certain employees of four joint venture cases in the form of a qualitative study based on the lexical intensities computed by the sphinx software to first show the main factors that significantly explain the success of the transfer of knowledge and then to discover the possible relationships between the factors to establish a System of relations and connections characterizing the possible interactions between the factors of the realization of the transfer of knowledge. This was also a way to highlight the magnitude and pattern of learning which take place between joint-venture partners in this specific set-up where North South and South business relations take place. This is a dimension hardly addressed in depth in the literature and constitutes our added value and original contribution to the corpus of knowledge. In this respect it adds another dimension to the work done by Lyles and Salk in 1996 and Tsang, Nguyen and Erramilli in 2004. Thus, the traditional factors for seeking joint-ventures on the part of foreign parent company, essentially of economic nature can be extended to the knowledge and learning spheres in a reciprocal manner and could be considered as an additional asset.

The phenomenon of knowledge transfer within a joint venture refers to a more complex relationship between parent companies and the joint venture that can contribute to the success of the knowledge transfer process. The transfer of knowledge from the local parent firm to the joint venture is carried out either directly or indirectly through collaboration with the foreign parent firm. The results show that the local parent firm is actively involved in the successful transfer of knowledge to the joint venture. She generally transfers her knowledge and experience to the joint venture. These are real contributions in terms of understanding the context of local and regional affairs, prospecting and marketing and acquiring knowledge related to the specificity of the Tunisian environment. They also offer expertise and rich experience in the field of activities of the joint venture. There is also direct contribution of local parent companies in the day-to-day management of joint ventures. This assistance to the joint venture is seen as an important contribution from local parent companies. It is indeed part of the learning process in line with the DOI of the Aalborg school seen earlier. It contributes to strengthen it but add another dimension which is « learning by transferring » knowledge. Key factors include the performance of the joint venture, the size of the local parent firm, strategic compatibility, balance of bargaining power between parent companies, mutual trust, quality of contributions and cultural compatibility. In addition, a good command of the local business environment appears as another key factors. Both the parent companies and the joint venture need therefore to take them into account in order to successfully transfer knowledge from the local parent firm to the joint venture. While doing that we are aware of several of the limitations which our work suffers from.

Firstly, from a methodological point of view, the choice of a non-probabilistic method to constitute the sample can generate some bias and we have tried to use in depth interviews to overcome some of this bias. The adoption of the lexical intensity method, borrowed from the linguistics field, while being original has rarely been used in management studies and in this respect need further exploration to be admitted as a viable method. In addition, the data collection at joint venture level, may not be sufficient to validate the research proposals in the absence of
a thorough investigation between the foreign parent firm and the local parent company. The present work proposes an original and rich vision by specifying the nature and the dynamics of a "triadic" relation involving three parties interacting simultaneously. Starting from this, we probably bring more questions than answers. Some points should be studied in depth, others have only been sketched or suggested. The results of the study suggest that differences in openness and perceptions of transfer issues determine the level of commitment of leaders. Is this not applicable to the employees of the companies involved? If the role of the public authorities of the host country in influencing national enterprises to engage in a transfer process seems obvious (political choices, infrastructures, incentives ...), what can be said about the role of the country of origin of the parent undertakings? In other words, do these countries favour the transfer (political decisions, incentive funds, assistance ...)?

Another important issue is to study in depth the place of informal relations between decision makers as a vehicle for the success of knowledge transfer.

4. Conclusion

While research in joint venture dynamics has often adopted a standard method of analysing the dominant market role and the competitive pressure, we have deliberately set out to inscribe our work in the evolutionary thinking of learning and competence building. The interactive process we have examined through knowledge transfer shows the scope of applying the concepts and tools in a joint venture set-up in a North South and South-South perspective. This approach which is at an exploratory phase will be deepened in subsequent work we intend to undertake. While being aware of its limitations as mentioned earlier, we hope it can be useful to inspire other researchers and notably the younger ones to undertake a similar work using different countries with different political and socio-political environment.

References


