

**Title of the Paper:**

**Effective Knowledge Transfer in International Joint Ventures**

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## ***Abstract***

*The importance of international joint ventures (IJVs) as business arrangements for firms to expand their international activities has increased the last years. For many of these firms the importance of knowledge and knowledge transfer has increased. Successful knowledge transfer depends on a number of parameters related to the external and the internal environment. The objectives of the paper are, first, to present and analyze the process of knowledge transfer in IJVs based on the relevant literature, and, second, to present a number of propositions related to knowledge types, characteristics and contextual factors that have an impact on knowledge transfer in IJVs. These propositions will be tested empirically at a later stage in IJVs where at least one of the parent firms is Greek.*

**Key words:** International Joint Ventures (IJVs), Knowledge Transfer, Organizational Learning

## **1. Introduction**

In recent years firms around the world are trying to expand internationally through collaborative agreements. Among the many different entry strategies, the popularity and importance of International Joint Ventures (IJVs) has increased substantially. The current very competitive environment has resulted in many forms of collaborative business arrangements intended to access knowledge, skills and resources that could not be produced internally by organizations in a timely and cost effective manner (Narula and Duysters, 2004). Cross border alliances and particularly IJVs have become one of the most common means of international expansion because they enable firms to compete in complex environments (Ernst and Halevy, 2004; Briscoe and Schuler, 2004). Many researchers view IJVs as vehicles for knowledge transfer to

local firms, enabling them to improve their performance and increase their efficiency and their effectiveness (Lane *et al.*, 2001; Lyles and Salk, 2006).

Kogut (1988) suggests that IJV formation objectives can be classified in three general categories: knowledge acquisition, transaction costs reduction and strategic behavior. Furthermore, many researches agree that one of the main motives for IJV creation is knowledge sharing and transfer (Foss and Pedersen, 2002; Reid *et al.*, 2001; Child and Faulkner, 1998; Shenkar and Li, 1999). Often the local partner contributes knowledge related to government regulations, market structure and distribution, whereas the foreign partner contributes formal knowledge, managerial know-how and technology (Park *et al.*, 2008). More specifically, IJVs established in transition economies provide foreign partners easy access to market and local networks, which in turn contribute capital, manufacturing know-how, marketing and managerial competencies in the IJV (Griffith *et al.*, 2001). Many researchers agree that successful knowledge transfer between partners is a key to IJV success (Inkpen and Beamish, 1997; Lyles and Salk, 1996; Steensma and Lyles, 2000).

Knowledge, learning and their impact on organizations became very popular topics among researchers in the 1990's when the importance of human capital for the creation of competitive advantage started to increase (Nevis *et al.*, 1995; Nordstrom and Ridderstrale, 2000). Research on the subject includes, but is not limited to the definition and description of the two types of knowledge, tacit and articulated (Hedlund, 1994), the learning process (Starbuck, 1992), the knowledge acquisition and the creation of value from useful knowledge (Brown and Duguit, 1991). In all cases, what is of main interest for researchers is the creation of new knowledge which is beneficial for firms, since it enables them to more accurately predict changes and opportunities in the business environment and to better determine appropriate

strategies and tactical actions to face new challenges. Without knowledge, firms are less capable of making sound business decisions and exploit attractive and new opportunities (Cohen and Levithal, 1990).

Although there is empirical research on the subject of knowledge transfer in IJVs, our literature review revealed the lack of empirical research on knowledge transfer in IJVs with at least one Greek partner. Research on IJVs by Greek firms has been contacted by Salavrakos and Steward (2006) but has focused on the partner selection process by the Greek partner.

This paper first presents the literature review on the importance of knowledge and knowledge transfer in IJVs. Next, the factors that affect knowledge transfer are identified and discussed and a number of testable propositions related to knowledge transfer in IJVs are presented. Finally, some conclusions are discussed along with suggestions for further research.

## **2. Importance of knowledge**

The knowledge-based view focuses on the human rather than on the physical assets of firms since human capital affects critically the creation, transfer, and acquisition of knowledge within an organization. The knowledge-based view explains how firms gain competitive advantage through the creation of knowledge (Grant, 1996).

One of the key assumptions is that learning and knowledge-based resources are attributes that lead to a competitive advantage (Teece, 1998). Knowledge is often presented as the most valuable resource and its transferability within and between firms has been determined as a key success factor and a critical strategic resource. The extend to which companies will benefit from their new international relationships depends greatly on their ability to transfer knowledge (Doz, 1996; Inkpen and Li, 1999; Grant, 1996).

### **3. Process of knowledge transfer**

#### **3.1 Knowledge transfer defined**

The transition from the industrial age, when capital was the most important resource, to an era in which knowledge plays the most significant role has important implications for firms.

According to Argote and Ingram (2000:151) “*Knowledge transfer in organizations is the process through which one unit (e.g. group, department or division) is affected by the experience of the other*”. Knowledge transfer occurs at different levels, such as individual, group, product line or at a departmental level in IJVs (Linda and Paul, 2000). Empirical research has shown that companies able to transfer knowledge efficiently from one unit to another have increased possibilities for success compared to the ones that are less capable and experienced in knowledge transfer (Argote and Ingram, 2000).

The concept of knowledge transfer is difficult to capture, since there are no clear boundaries between knowledge transfer and the creation of new knowledge (Sahal, 1981). It can be determined as the first phase of the knowledge acquisition process: transfer, transformation and harvesting (Do, 2007). Knowledge transfer implies successful knowledge transfer (Bresman *et al.*, 1999) and in the IJV context it can be measured by the change in knowledge or change in performance (Linda and Paul, 2000). In order for knowledge transfer to be considered successful and to add value, it has to result in accumulation of new knowledge (Zander, 1991). Successful knowledge acquisition, however, does not always result to increased performance, since the knowledge transferred cannot easily fit the local environment (Lane *et al.*, 2001).

Although organizations can benefit by transferring knowledge from one unit to the

other, successful knowledge transfer could be difficult to achieve (Argote, 1999). As Szulanski (1996) argued, individuals unaware of why some processes and functions are especially efficient will not be able to transfer successfully their knowledge to others. Knowledge is often embedded in the processes, routines, values and norms of an organization. It is a complicated process and the differences between partners make it more complicated. Furthermore, more difficulties will arise when individuals for different reasons are not willing to share the knowledge and information they possess (Stasser and Titus, 1987).

The establishment of an IJV facilitates knowledge transfer through the creation of a stable and long term relationship between partners, which allows the development of trust (Beamish and Banks, 1987). IJVs in developing countries are not a race contest as Hamel (1991) suggested, but collaborative agreements that can lead to a competitive advantage through the combination of their resources for the creation, storage and application of knowledge (Grant and Baden-Fuller, 1995). In some cases, the partners' main objective is to gain knowledge, whereas in other cases they follow a more passive approach to knowledge acquisition (Inkpen, 2000). According to Lane and Lubatkin (1998) the foreign parent-joint venture relationship can be viewed as a teacher-student relationship. Knowledge transfer depends to a great extent on the foreign partner's willingness to share knowledge. The greater the foreign partner's willingness is to provide support in the form of managerial, marketing and technology resources, the greater the chances for the IJV to learn and internalize this knowledge (Hamel, 1991; Steensma and Lyles, 2000).

Researchers have developed and proposed different knowledge acquisition patterns between partner firms. According to Inkpen (2000:1025) *“learning is initiated when partners interact with their environment and are exposed to various sources of*

information”. He presented the knowledge acquisition framework shown in Figure 1. Inkpen (2000) introduced, among others, factors such as the level of trust between partners, their prior relationships and their experience with alliances, the knowledge accessibility and relatedness and the relationship and knowledge characteristics. He suggested that if partners want to learn from each other they should interact and that, unless there is knowledge exchange, knowledge acquisition cannot occur. The knowledge exchanged varies from very simple information to more important “strategic” information exchange.

INSERT FIGURE 1.

Knowledge transfer, unlike information transfer, is a complicated process and depends on how easily it can be transferred, interpreted and absorbed (Hamel *et al.*, 1989). In the IJV context, knowledge acquisition can be examined from three different perspectives:

- A:** Acquisition of knowledge useful for the design and organization of other alliances (Lyles, 1998). This knowledge can be used for managing future alliances.
- B:** There are firms that seek access to knowledge and skills without the intention to use them in their own processes. Partner learning is important in cases in which firms want to combine their knowledge and skills in some form of cooperation (Doz and Hamel, 1998).
- C:** The knowledge created by an alliance can be used by the partners for the creation of managerial strategy of firms unrelated to the alliance. This knowledge can be used by one partner independently from the other (Khanna *et al.*, 1998) and it is defined as “alliance knowledge” (Inkpen, 2000).

“Alliance knowledge” is related with the partner’s skills and knowledge and differs from the second type of knowledge because it is important for the partners even

outside the alliance. This useful knowledge can be transferred into the alliance from a partner, or can be created independently from the alliance, through relations with clients, competitors and other firms. Hamilton (1995) described the case of Sony which has a large number of alliances with telecommunication and technological firms in order to create new relationships with clients.

IJVs are often regarded as unstable business arrangements, with a high degree of uncertainty; knowledge transfer and acquisition can play a critical role (positive or negative) to their stability. Instability in IJVs can result from a change in the knowledge balance between partners (Inkpen and Beamish, 1997). Furthermore, foreign partners do not always enter the alliance with specific knowledge acquisition plans. Access to knowledge originating in the local country however is an important motivating factor for them to choose to form an IJV compared to direct investment in the local country. Knowledge acquisition related to local conditions by the foreign partner is a key resource of the local partner and is an important bargaining tool since foreign partners depended on local partners' knowledge (Yan and Gray, 1994).

#### **4. Factors affecting knowledge transfer**

There are many challenges involved with the knowledge transfer process, which is influenced by several different parameters. A number of factors that contribute to the creation of a favorable environment and have a positive impact on knowledge transfer have been identified and examined by researchers. These factors can be classified as a) knowledge related (type, characteristics and attributes of knowledge) and b) context related (organizational and environmental aspects). One of the objectives of this paper is to present and analyze some of the most frequently knowledge related and contextual factors that affect knowledge transfer mentioned in the literature.



## **4.1 Knowledge related factors**

There are various ways to classify knowledge; it has been characterized along different dimensions and with the use of many terms (Foss and Mahnke, 2003). The most common distinction found in literature is the one between tacit and explicit knowledge.

### **4.1.1 Explicit knowledge**

Explicit knowledge is the knowledge that has been codified and can be transferred in a formal and systematic way in the forms of official statements, procedures and rules (Polanyi, 1996; Nonaka and Takeuchi, 1995). According to Inkpen (2000:1029) “*explicit knowledge that can be expressed in schemata, diagrams and charts is relatively easy to transfer, and acquire*”. Explicit knowledge is objective and can be codified and expressed in manuals, computer programs and training tools (Inkpen and Pien, 2006). Furthermore it can be communicated and transferred more efficiently than tacit knowledge through formal and systematic channels, since it can be formalized and expressed in words, numbers and specifications (Nonaka and Takeuchi, 1995; Polanyi, 1962).

### **4.1.2 Tacit knowledge**

There is an agreement among researchers that tacit knowledge is the most important type of knowledge (Nonaka and Takeuchi, 1995). Dhanaraj *et al.* (2004:30) argued that “*whereas explicit knowledge provides the building blocks, tacit knowledge provides the glue and the integrating mechanism in learning*”. According to Pak and Park (2004), the basis for the competitive advantage of many firms is based on tacit knowledge, which is intergraded in the daily routines and habits of individuals.

Polanyi (1996) defined tacit knowledge as the knowledge that cannot be verbalized

and articulated. It is the knowledge that is embedded in people's actions; it is non-verbal and unarticulated (Polanyi, 1996). Reed and DeFillipi (1990) defined tacit knowledge as the accumulation of noncodifiable skills that individuals learn by performing certain tasks. Tacit knowledge is often referred as the knowledge in the "peoples' heads". According to Prehalad (1993), Sony's competitors have failed to copy the company's "miniaturization" knowledge partially because this specific knowledge was embedded in the organizational processes and routines.

#### **4.1.3 Implications for knowledge transfer**

Kogut and Zander (1992) suggested three attributes that can be used to measure how explicit specific knowledge is: a) codifiability – the degree in which knowledge can be presented in a formal way (words, numbers), b) teachability- how easy it is to teach the knowledge to an individual and c) complexity which refers to the number of different elements required to accomplish a task (Kogut and Zander, 1992). Winter's (1987) research extended Kogut and Zander's (1992) list and proposed a more detailed list with knowledge characteristics in his study of technology transfer in Swedish companies. The knowledge characteristics suggested by Winter (1987) are: tacit vs explicit; not teachable vs teachable; not articulated vs articulated; not observable in use vs observable in use; complex vs simple; and element of system vs independent. Codification of knowledge enables all members of an organization to access it. Furthermore it allows for more effective transfer, since it can be organized and turned into a code and become comprehensible. Codified knowledge becomes permanent; otherwise it can be lost (Davenport and Prusak, 1998).

Simonin (1999) proposed a number of knowledge characteristics that affect knowledge transfer. He argued that ambiguity is negatively related to knowledge transfer. Knowledge ambiguity (antecedent) depends on the tacitness of the

knowledge, its specificity, and its complexity in addition to non-knowledge related factors such as experience, partner protectiveness and cultural and organizational distance. His findings are in agreement with Reed and Fillipi's (1990:96) suggestion that *"barriers to imitation are depended upon the ambiguity in a firm's competency-based advantage"*. They concluded that knowledge ambiguity comes from the effect on knowledge of tacitness, specificity and complexity.

Tacit knowledge is abstract and can be transferred only with the active involvement of the teacher. Tacit knowledge due to its non-codifiable nature has to be transferred through *"intimate human interactions"* (Tsang, 1995). Inkpen (2000) argued that tacit knowledge is broader in scope and its acquisition by an IJV partner is expected to require more time and resources; as a result it will be more costly. Inkpen and Dinur (1998) found that the more tacit knowledge existed in an alliance, the greater was the need for resources and the lower was the hierarchical level through which successful knowledge transfer happened. Furthermore it is expected that the transfer of tacit knowledge will require the transfer of large amounts of knowledge since the receiver is not aware in advance which subset of knowledge will be the most useful for certain problem (von Hippel, 1994). Tacit knowledge is difficult to formalize and make visible, making it difficult to share with others. According to Minbaeva *et al.* (2003:587), *"the key element in knowledge transfer is not the underlying (original) knowledge, but rather the extent to which the receiver acquires potentially useful knowledge and uses this knowledge in its own operations."*

Tacit knowledge is very difficult to communicate and transfer since it is personal and is embedded in the individuals' actions in a specific framework (Nonaka, 1994). According to Teece (2000), the transfer of tacit knowledge from one organization to the other, requires the transfer of people and clusters of individuals working in teams

with defined patterns. Most researchers agree that it is extremely difficult to transfer not codified knowledge; it can be learned only through personal experience (Kogut and Zander, 1992; Nonaka, 1994; Simonin, 1999a; Polanyi, 1996). Cummings *et al.* (2003), in their study of US high technology companies have shown that the more embedded knowledge is, the more difficult it is to transfer it. Pak and Park (2004) have empirically confirmed in their study of the IJVs in Korea the negative impact of tacitness on knowledge transfer between IJV partners. Based on the above, we propose the following propositions to be tested empirically:

***Proposition 1.*** *Knowledge transfer from the partner to the IJV increases when the type of knowledge being transferred is explicit, simple and can be codified.*

***Proposition 2.*** *Knowledge transfer from the partner to the IJV decreases as knowledge embeddedness increases.*

## **4.2 Context related factors**

It has been shown that in cases of equity IJVs, where a new independent firm is established, knowledge transfer takes place within the organization more effectively compared with other types of agreements, such as licensing (Mowery *et al.*, 1996). Kogut (1988) also reported similar findings and argued that JVs are used for the transfer of organizationally embedded knowledge, which cannot be formalized and codified. Similarly, Uzzi (1996) has concluded that more tacit knowledge is transferred through a network of firms than across independent firms.

Motive also affects knowledge transfer. The more value partners see in knowledge acquisition, the greater their drive will be to learn and they will seek to acquire this useful knowledge more aggressively (Inkpen, 2000). In some cases the alliance formation can lead to a positive experience where all partners gain knowledge through their collaboration. Other times, however, the dominant partner is the one that learns

faster (Hamel, 1991). Often, when there is high knowledge overlap, partners are very reluctant to share their knowledge, worrying that this knowledge might lead to the creation of a new competitor (Inkpen, 1998).

Commitment is also a significant determinant of successful knowledge transfer. The commitment of all partners is important for the IJV to accomplish its goals and retain its stability. Lin and Germain's (1996) study of US-Chinese joint ventures revealed the positive impact commitment has on learning from the other party. Committed IJV partners tend to respect the alliance and do not engage in opportunistic behavior that benefits only one member; instead they act in the best interest of the relationship. Such behavior leads to mutual trust between the IJV partners. Tsang's *et al.* (2004) empirical study in the Vietnam context has shown that knowledge transfer requires high levels of commitment from the transferor. The foreign partner's commitment is closely associated with its willingness to invest resources in the relationship. In many occasions, foreign partners need to commit substantial resources to the IJV in order to facilitate knowledge transfer (Tsang *et al.*, 2004). These resources are often not limited to assets, but can include training and support in order to make the transfer of knowledge a success. A recent study on IJVs in Vietnam confirmed the "*positive effect of management's commitment on the amount of marketing knowhow acquired from the partner*" (Evangelista and Hau, 2009:69). Based on the above, we propose a broader proposition:

***Proposition 3.*** *The level of partner commitment affects positively knowledge transfer from the partners to the IJV..*

Hauke (2006) argued that among the factors that affect knowledge transfer, organizational culture is a critical one. It can play an important role in the achievement of the firm's international success and has a positive influence since it

stimulates communication and cooperation between employees and partners. In the case of an US-Chinese IJV examined by Inkpen (1998), learning was negatively affected by the different perceptions and assumptions partners had regarding the alliance. Inkpen (1998) has concluded that the degree of similarity between organizational cultures affects knowledge transfer; the greater the cultural alignment between alliance and partner managers, the higher the chances of effective learning transfer and learning. Cultural distance and differences in organizational cultures might have a negative impact on knowledge transfer and reduce the competitive advantage of firms (Inkpen, 1998). Based on the above we propose the following:

***Proposition 4.*** *The greater the degree of cultural similarity among the partners the more likely that successful knowledge transfer will result in IJVs between partners.*

The nature of social ties also affects knowledge transfer. Hansen (1999) empirically showed that weak ties (infrequent and distant relationships) between units facilitate knowledge search in other units. When, knowledge is simple and can be codified, “weak ties” will result to a reduction of the required time to accomplish a project. However, when knowledge cannot be codified, “strong ties” will allow for continuous interaction, promote knowledge acquisition and are expected to decrease project completion times. Furthermore, social ties allow for better opportunities to share knowledge and experiences, to develop trust and cooperation (Granovetter, 1985). Indicators of the nature of social ties between foreign and local partners are the level of emotional support, the managerial expertise and the time devoted to the partnership (Uzzi, 1996; Kale *et al.*, 2000; Uzzi and Lancaster, 2003).

In most instances, the foreign partner contributes managerial and technological knowhow in addition to capital resources to the IJV. How close the relationship between the partners and the IJV is, varies from case to case; some foreign partners

choose to have a “loose relationship” with the IJV and limit their contribution to few resources. Communication in these cases is limited and is conducted mostly through formal channels. In other instances, partners have a closer and more active relationship; communication is less formal and takes place whenever there is a need. This close relationship through personal contact or teleconferencing leads to a “*level of comfort between the parties*” (Dhanaraj *et al.*, 2004).

Personal contacts and face-to-face communication are important and well suited in order to identify and understand the knowledge to be transferred (Argote, 1999). Inkpen (1998) identifies four managerial practices that facilitate learning in alliances and parent firms: a) personnel exchanges, b) technology transfer, c) alliance and parent interactions (tours, visits of facilities), and d) links between the alliance members’ strategies.

Bresman *et al.* (1999), in their study of Swedish international alliances, have shown empirically that communication, visits and meetings facilitated the knowledge transfer process; the more tacit the knowledge is, the more easily it is transferred with intensive communication. Kale *et al.* (2000:232), in their study of U.S. based alliances have shown that learning is “... *best achieved through wide ranging, continuous and intense contact between individual members of the alliance partners*”. Based on the above we propose the following:

***Proposition 5.*** *The level of communication between partners affects positively knowledge transfer in IJVs.*

Trust between partners also influences knowledge transfer. Trust can be defined as the confidence that a partner would not act in self-interest at the other partner’s expense (Uzzi, 1997). In addition, trust implies that partners will not take advantage of each other’s weaknesses (Steensma and Lyles, 2000). Trust plays an important role

in alliance creation, since a contract will not cover the differences and disagreements that may arise. Trust also allows access to resources and often results to common problem solving. It also determines the degree to which knowledge exchange between partners takes place, the efficiency and the effectiveness of this exchange.

Furthermore, trust leads to a common understanding of the partners and facilitates learning among alliance partners. When a relationship characterized by trust has been established, it is easier for each member of the alliance to concentrate on the essential tasks, and not worry about the aims and actions of the other members. A study on Norwegian firms involved in alliances by Beccera *et al.* (2008) has shown that the greater the perception regarding the trustworthiness of the partner, the greater the willingness to take risks, including the transfer of tacit and explicit knowledge to the IJV. Similar findings by Pak and Park (2004) in the Korean context have shown the positive relationship between knowledge transfer and trust. Madhok (2006) argued that ownership alone is not sufficient in an IJV and needs to be supplemented by trust among partners. Furthermore, he suggested that knowledge on how trust is established and maintained among partners is very important to the personnel involved in the IJV management. Common values and systems increase the degree of embeddedness between the partners and the IJV. Trust between partners can exist because of foreign partner's reputation, the presence of social ties and of common systems. There are cases, however, where an IJV implements the foreign partner's philosophy and values without the presence of mutual trust and social ties between partners (Dhanaraj *et al.*, 2004). Based on the above, it is reasonably expected that:

***Proposition 6.*** *As the level of trust between the IJV partners increases, so does knowledge transfer.*

Research has shown that equity ownership (control) also affects knowledge



transfer. Control is defined as the “*ability to influence systems, methods and decisions*” (Pak and Park, 2004). It is expected that when each party shares equally the ownership of the IJV, they will both contribute resources and knowledge and will utilize them effectively. Empirical results, however, regarding the effect of IJV equity on knowledge transfer have been mixed. Killing (1983) made a distinction between the “dominant partner” and the “shared management” IJVs. He found that in developed countries 50/50 equity sharing between partners might create problems especially when cultural differences exist and no partner has the control. Thus, dominant partner IJVs would be expected to be more successful than the equally shared equity ones, since coordination among partners can be very challenging. Dominant partner IJVs can reduce the risk associated with coordination. A study of Korean IJVs by Pak and Park (2004), however, did not show any statistical significance or positive relation between equity structure and knowledge transfer. Furthermore, Kogut (1985) has shown that in developed countries there is no relation between control and achievements.

On the contrary, shared management IJVs studied by Salk (1992) were found to affect knowledge transfer from both partners positively. In accordance, Lyles and Salk (1996) empirically showed that equal ownership of an IJV would result to the best learning outcome for all members of the alliance. In their study on Hungarian IJVs they have found that to certain extend, knowledge acquisition is affected by ownership type and that equal ownership results to the best condition for learning. Furthermore, their results indicated that when the local partner has the control of the IJV, then a lack of knowledge acquisition and transfer may result. They concluded that the absence of a dominant partner often leads to increased communication and interaction between partners in order to resolve problems. There is a risk, however,

when there are conflicts and misunderstandings. In such cases, the absence of a dominant partner might affect negatively the process of knowledge transfer. Beamish (1985) found that shared control is preferred in IJVs operating in less developed countries. In addition, Beamish and Lupton (2009) in their examination of the research in joint venture performance suggested that if the partners' bargaining power is related to the resources they contribute to the IJV and trust between partners is crucial, then it could be logical to assume that equally shared equity IJVs could be viable. Thus we argue that:

***Proposition 7.*** *The equally shared ownership (50/50) will lead to more knowledge transfer to the local partner compared to other forms of equity structure in IJVs..*

Research has shown that prior experience also plays an important role in knowledge transfer. Experience can be defined as the firm's prior collaboration with a local firm before the current partnership (Pak and Park, 2004). According to Barkema *et al.* (1997) the ability to collaborate with others can be learned from previous experience in IJVs. Companies with IJV experience have a better understanding of the learning opportunities (Inkpen, 1995) and are expected to benefit more in regards to learning, since there is a greater possibility that incoming knowledge will be in a familiar form (Simonin, 1999). Powel *et al.* (1996:120) argued that "...knowledge facilitates the utilization of other knowledge. What can be learned is crucially affected by what is already known". Similarly, Inkpen (1998) suggests that firms with prior collaborative experience are more likely to value the learning opportunities arising from the new alliance formation. Furthermore, as firms start collaborating, they develop experience in the management of alliances and a reputation as partners. In addition, experience has an impact on the control of the IJV. Research, however, of Multi-National Corporations (MNCs) in the Korean context, has shown a negative

relationship between knowledge transfer and prior alliance experience. The findings imply that when MNCs gain collaborative experience with Korean partners, they become more reluctant to transfer knowledge to the local partner. An explanation could be that firms with prior experience have less need for local support, a fact that could increase their bargaining power (Pak and Park, 2004). Based on these findings, it is more reasonable to assume that:

***Proposition 8.*** *The partner's former experience in IJV formation and management (alliance management), will positively affect the quantity of knowledge transferred to the current partner in IJVs..*

Prior relationship between the partners also facilitates knowledge transfer since it leads to the creation of trust. According to Inkpen (1998), the two types of knowledge to be considered are the knowledge of the partner and the knowledge about alliance management. The relationship between the IJV's partners can be characterized and evaluated based on a) the strength of their social ties, b) the level of trust between them, and c) the degree to which they share processes and values (Kale *et al.*, 2000; Cohen and Prusak, 2001). Similarly, Heide and Miner (1992) showed that when firms have collaborated in the past, they will have a better understanding of each other's capabilities and knowledge resources, because relationship building, which facilitates knowledge transfer, has already occurred. Similarly, Inkpen (2000) proposed that previous collaboration ties between the partners are positively associated with knowledge transfer. Thus, we argue that:

***Proposition 9.*** *The more extensive the firms prior collaboration and relationship with a prospective partner, the more likely that successful knowledge transfer will result in IJVs..*

In spite the fact that human factor plays a considerable role and has an important

impact on the knowledge transfer process (managerial commitment, cultural alignment, trust between partners, prior experience), the significance of the educational level of the personnel involved in the process, to the best of our knowledge, has not been examined yet. The literature review revealed that no empirical research has been conducted on the level of education of the individuals involved in the knowledge transfer process in IJVs. Human capital is one of the most important assets. Furthermore, knowledge management and transfer in international alliances is a rather complicated process affected by a number of factors many of which are affected by the personnel's contribution and behavior and attitudes. It is important for the personnel involved in this process to have a higher educational level in order to better comprehend the complexity and the importance of the knowledge transfer process and facilitate it. Based on our analysis it is logical to expect that there is a positive relationship between the staff's level of education and the extent of knowledge transfer. Thus we propose that:

***Proposition 10.*** *The educational level of the individuals involved in the knowledge transfer process is positively related to the extent of knowledge transfer from the partners to the IJV.*

## **5. Conclusion and objectives for further research**

IJVs are collaborative agreements in which firms contribute knowledge and other resources hoping to gain more than what they have contributed. As companies continue their effort to build on competitive advantage, the importance of knowledge as one of the most important resource continues to grow. Successful knowledge transfer between the partners and the IJV contributes to a great extent to the success and to the performance improvement of the new firm. This paper presents and analyzes the process of knowledge transfer and some of the major contextual

parameters that affect this process.

The first section presents the process of knowledge transfer, which is a rather complicated process since the outcome cannot be easily defined and measured. In the second part, some of the most important factors that affect knowledge transfer, as identified in the literature, were analyzed and discussed. The focus of the paper was to discuss the knowledge related and the context (environmental/firm) related factors that affect knowledge transfer in IJVs.

The review of the literature and the contradictory prior findings underline the need for further research into the questions related to knowledge transfer in IJVs. This article, identifies the main factors that affect knowledge transfer in IJVs through a review of the existing theoretical and empirical studies. In addition, we have developed ten propositions related to knowledge transfer in IJVs based on relevant literature which will contribute to the understanding of knowledge transfer in IJVs.

The main contribution of this paper is that it sets the ground for research on knowledge transfer in IJVs with a Greek partner. There is an opportunity for further work on the above issues. We intend to examine knowledge transfer in IJVs where at least one of the partners is a Greek firm, a case that to the best of our knowledge has not been researched until now. We expect to provide important insights for the field of IJV management. The findings from the Greek experience/evidence could be used by Greek firms seeking to expand internationally through joint ventures and become a valuable source of information.

In order to better comprehend the relationship between knowledge types, characteristics and effective knowledge transfer, we have developed (based on relevant literature) for examination two propositions to be used to test the validity and the impact of the knowledge related variables on knowledge transfer. We argue that

knowledge transfer from the partner to the IJV increases when the type of knowledge being transferred is explicit. In addition, the degree of embeddedness and its effect on knowledge transfer will also be examined. We suggest that knowledge transfer decreases as knowledge embeddedness increases.

In addition, we have developed for examination eight **propositions** related to contextual factors. Our research will focus on the level of commitment and trust between partners and their impact on knowledge transfer. We argue that as the level of commitment and trust among partners increases, so does the knowledge transferred. In addition, cultural similarity between members of the alliance and communication will be explored. We argue that the greater the cultural alignment and the communication between partners and the IJV, the greater the knowledge transfer. The equity structure and its effect on knowledge transfer will also be examined. Empirical research on this issue has produced mixed results: some findings indicate that the absence of a dominant partner will negatively affect knowledge, whereas other researchers argue that the presence of a dominant partner will result to more efficient problem solving processes. We propose that “equal ownership” in IJVs will lead to more knowledge transfer than in other forms of equity.

The partners’ prior alliance experience and its effect on knowledge transfer will also be examined. We propose that since learning is a cumulative process, prior experience in alliances will allow partners to better understand each other’s strengths and weaknesses and will enable them to determine learning opportunities and will enhance knowledge transfer. Furthermore, the impact of prior relationship and collaboration between partners will be explored. We propose that prior ties between partners provide them with a better understanding of each other’s characteristics and learning opportunities and positively affect knowledge transfer. Finally, we will

examine the impact the educational level of the personnel involved in the knowledge transfer has on the process. We propose that the educational level of the staff involved in the process is positively related to knowledge transfer.

The validity of the above propositions will be examined with the use of a questionnaire that has been designed and will be sent to managers of Greek firms that have formed IJVs. The data will be analyzed statistically and the findings will be discussed and presented in a way that will contribute to the subject of knowledge transfer in IJVs that Greek firms have formed.

The importance of knowledge as a key competitive factor is expected to increase in the future. The creation of IJVs does not by itself ensure learning and knowledge transfer; managers need to take measures to make this happen. In order to do so, the understanding of the parameters affecting knowledge transfer and their impact is crucial. As noted earlier, further research is needed to examine the relationships between knowledge types, environmental factors and knowledge transfer in IJVs in the Greek context. The findings of our research will contribute to the existing literature of the subject and could serve as a valuable tool with many practical implications for managers of Greek firms involved in the formation and management of IJVs. Unless managers of the partner Greek firms analyze and understand the factors affecting knowledge transfer in IJVs they might become part of the large percentage of IJVs that fail to reach their goals. A solid understanding of these factors is crucial because of their impact on knowledge transfer; with our future research we intend to provide the framework of knowledge transfer in IJVs with a Greek partner.

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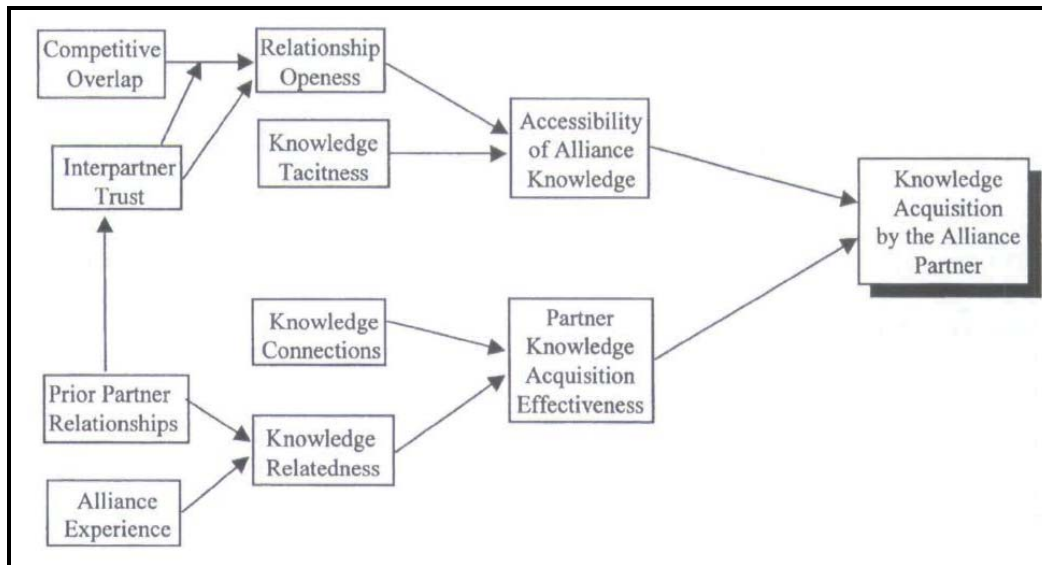
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## **FIGURES**

**Figure 1: Knowledge acquisition framework**



Source: Inkpen, 2000, pp. 1026.