



Transnational corporations and strategic challenges

An analysis of knowledge flows and competitive advantage

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Abstract

Purpose – The purpose of this paper is to analyse knowledge transfers in transnational corporations.

Design/methodology/approach – The paper develops a conceptual framework for the analysis of knowledge flow transfers in transnationals. Based on this theoretical framework, the paper propose's research hypotheses and builds a causal model that links the constructs of the model (knowledge stickiness factors, internal/external knowledge flow transfer, and competitive advantage).

Findings – The competitive advantage of a transnational organisation lies to a great extent in its ability to identify and transfer strategic knowledge between its geographically dispersed and diverse locations. Transnational corporations face major challenges in the current competitive environment. The transnational corporation must learn how to exploit its specific resources – either acquired in the country of origin or in foreign markets. It cannot forget that the source of a long-term competitive advantage is focused on the variety of skills and diversity of knowledge. Transnationals can benefit from international fertilisation, because knowledge exploration and exploitation activities are closely related with the concepts of synergies, interdependences and interactive organisational learning.

Practical implications – The paper proposes a causal model that links strategic variables in the knowledge flow transfer to the achievement of a competitive advantage for the firm. As a further avenue for research, there are plans to test this model with a sample of USA pharmaceutical companies with subsidiaries abroad.

Originality/value – The paper provides great value both for academics and executives interested in the analysis of the complexity of knowledge transfer in transnational corporations.

Keywords Competitive advantage, Knowledge transfer, Transnational companies

Paper type Conceptual paper

1. Introduction

The competitive environment provides a unique opportunity to examine how organisational globalisation is affecting knowledge transfer and organisational learning in a globalised world. While every foreign subsidiary provides some geographically unique knowledge that allows a parent to exploit opportunities that exist in local resource and/or markets, the competitive advantage of a transnational organisation lies – to a great extent – in its ability to identify and efficiently transfer strategic knowledge between its geographically dispersed and diverse locations.

The paper analyses knowledge flow transfers in transnational corporations. It is structured in five major sections. In Section 1 it presents the transnational corporation in the current competitive landscape. Section 2 examines knowledge-based resources in a transnational (stocks at individual, group and organisational level). This section also studies the different forms of knowledge to be transferred (ancillary, core, idiosyncratic and compulsory). Section 3 analyses key factors in the knowledge flow



transfer process. Section 4 analyses the roles of the headquarters and subsidiaries of the transnational in the knowledge transfer process. Based on the theoretical framework developed in this section and previous ones, we draw our hypotheses and also build a causal model with the variables – stickiness factors, knowledge flow transfer and competitive advantage – to explain the relations between them. Finally, in Section 5 we summarise major conclusions and implications for management and also suggest avenues for further research.

2. Transnational corporations

Literature on internationalisation of the firm points out that the direct investment in a foreign country happens due to a desire of internalising the knowledge transfers. Knowledge may be transferred more efficiently through internal organisational mechanisms than by means of external market mechanisms, because these transactions are open to several market imperfections, including problems of information acknowledgement and revelation as well as negative externalities.

A transnational is a corporation with operations and investments in many countries around the world. It has its headquarters in one country and operates wholly or partially owned subsidiaries in one or more other countries. The subsidiaries report to the central headquarters.

The growth in the number and size of transnational corporations since the 1950s has generated controversy because of their economic and political power and the mobility and complexity of their operations. Some critics argue that transnational corporations exhibit no loyalty to the countries in which they are incorporated but act solely in their own best interests.

The transnational has various motives for establishing a corporate presence in other countries. One possible reason is a desire for growth. A corporation may have reached a plateau meeting domestic demands and anticipate little additional growth. A new foreign market might provide opportunities for new growth. Other companies desire to escape the protectionist policies of an importing country. Through direct foreign investment, a corporation can bypass high tariffs that prevent its goods from being competitively priced.

Another reason is preventing competition. The most certain method of preventing actual or potential competition from foreign businesses is to acquire those businesses. Another motive is to reduce costs, mainly through the use of cheap foreign labour in developing countries. A transnational corporation can hold down costs by shifting some or all of its production facilities abroad.

Nowadays the number of transnationals is increasing while other types of multinationals (for example, multidomestic multinationals) are decreasing (Bartlett, 1986; Porter, 1986).

3. Knowledge-based resources in transnational corporations

In transnational corporations knowledge flows among affiliate companies is gaining importance. In particular the analysis of the differences in models of knowledge flows might throw light on the management of transnational corporations (Polanyi, 1966).

What types of knowledge exist in a transnational? Do all types have the same importance for organisational competitive advantage? Let's start answering the first question.

3.1 Types of knowledge-based resources

Intellectual capital literature clearly differentiates three types of knowledge-based resources: human capital, relational capital and structural capital (see Figure 1).

Human capital is defined as the individual knowledge stock of the employees of an organisation. How can employees contribute to the creation of intellectual capital? Employees can do it by means of their knowledge, skills, experience, attitude, absorptive capacity and even their emotional intelligence (Becker, 1964; Goleman, 1995, 1998a; Mayer and Salovey, 1997; Ordóñez de Pablos, 2004a, 2006).

In a limited sense, relational capital encompasses present knowledge in organisational connections already developed with the environment. The base of relational capital is the knowledge that was accumulated by the different parties during exchanges with a third party. This knowledge is external to the firm as well as to the human capital existing within the company. Relational capital becomes more valuable as relations -with customers, suppliers, shareholders and so- have a longer duration. As a result of its external nature it is the hardest type of knowledge to codify.

Structural capital represents the knowledge that remains in the firm when employees go home. Therefore, the firm owns it. Structural capital is “where the value added by the nonlinearities of the knowledge creation process is assumed to reside” (Boisot, 2002, p. 69). Inputs to this process are provided by human capital. On the other hand, structural capital encompasses all forms of knowledge deposit which is not supported by the human being such as organisational routines, strategies, process handbooks and databases, and many more (Walsh and Ungson, 1991; Weick, 1979).

Structural capital can be subdivided into technological and organisational capital. Technological capital includes all technical and industrial knowledge, like results from research and development and from process engineering. Youndt *et al.* (2004) define organisational capital as the institutionalised knowledge and codified experiences residing within an organisation. Artefacts of organisational capital include an organisation’s reliance on manuals and databases to preserve knowledge, along with the establishment of structures, processes, and routines that encourage repeated use of this knowledge. As an integration mechanism, organisational capital allows the firm to preserve knowledge as incoming employees replace those leaving.

3.2 Forms of knowledge-based resources

It is clear that not all organisational forms of knowledge skills and competences are strategic. The first step is analysing what forms of knowledge exist in the firm. And the second step is determining how these forms can be a source of competitive advantage. Therefore we will analyse the strategic potential of organisational human capital juxtaposing two dimensions: value and uniqueness (Ordóñez de Pablos, 2004a, 2006; Snell *et al.*, 1999; Ulrich and Lake, 1991)

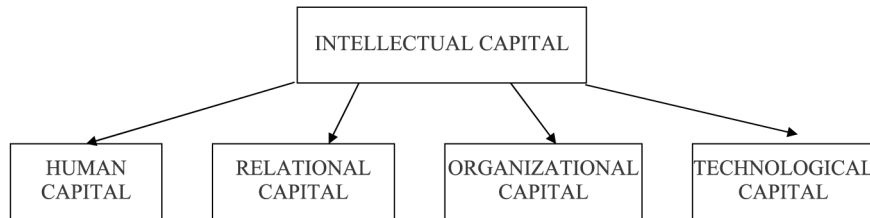


Figure 1.
Types of knowledge-based resources

The resource-based view of the firm states that organisational resources are valuable when they allow improving affectivity, capitalising on opportunities and neutralising threats (Barney, 1995; Hall, 1993; Peteraf, 1993; Wernerfelt, 1984). In the context of strategic management, value creation focuses on increasing the ratio of customer profits in comparison with the associated costs. In this sense, organisational knowledge can add value if it contributes to lower costs, provide increased service or product features.

Additionally, the importance of knowledge-based resources depends on the degree to which they contribute to the creation of a competitive differentiation (Collis and Montgomery, 1995). From an economic view, transaction-costs theory indicates that firms gain a competitive advantage when they own firm-specific resources that cannot be copied by rivals (Williamson, 1975). Thus, as the uniqueness nature of human capital increases, firms have incentives to invest their resources into its management with the final aim of reducing risks and capitalise on its productive potential.

Juxtaposing the uniqueness dimension and value dimension we build a matrix (Figure 2). This matrix presents a conceptual framework for the analysis of different forms of knowledge-based resources that may exist in a firm. The framework is useful to study how these forms of knowledge should be managed in order to maximise their contribution to the firm.

Idiosyncratic knowledge (low value, high uniqueness). Quadrant 1 represents knowledge with strong uniqueness but not especially useful for creating customer value. This form of knowledge is a potential source of differentiation because it is a firm-specific resource. An important task is identifying how a firm can develop the potential value of this resource while preserving its uniqueness. Over the year highly innovative firms have used and supported the development of idiosyncratic knowledge. However, with the increasing need of reducing costs in the short run, many firms have started to analyse the value of this form of knowledge. In some cases, the decision has been to disinvest. This is an interesting dilemma for the management

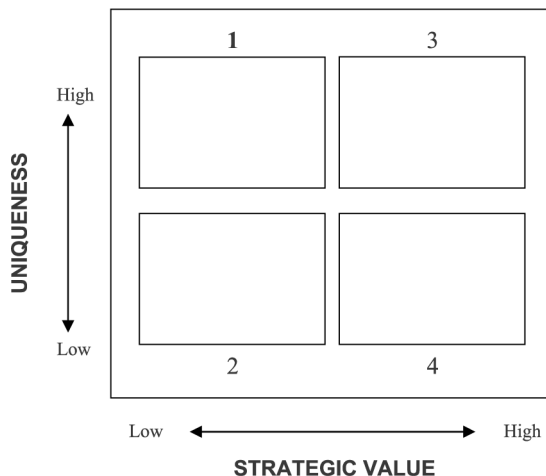


Figure 2. Forms of knowledge

Source: Adapted from Snell et al. (1999)

of human capital because managers must avoid an overinvestment in idiosyncratic human capital but at the same time, they must warrant competitiveness in the long run (Ordóñez de Pablos, 2004a) (see Figure 3).

The key factor to increasing the value of this form of knowledge is linking it to other forms of knowledge as well as with relational, organisational and technological capital. To promote coordination and cooperation among these forms of intellectual capital, organisations should develop human resources systems based on collaboration to support the development of lateral relations, exchange programs, group-based rewards, team building and rotation, among others (Lepak and Snell, 1999; Snell *et al.*, 1999).

Ancillary knowledge (low value, low uniqueness). There is employees' knowledge that is neither useful for creating customer value nor is it particularly specific to the firm. It is called ancillary knowledge (Quadrant 2). Many times this form of knowledge is simply generated as a result of the activity of the corporation (see Figure 4).

Literature has not devoted much attention to the investment on this form of knowledge. Probably the best approach to managing ancillary knowledge is to dis-invest in employees. Ancillary knowledge is formed basically by unskilled or semi-skilled employees that offer no source of competitive advantage (Snell *et al.*, 1999). Thus firms tend to substitute technology for employees. Alternatively, if ancillary knowledge markets are efficient, then firms may find that it is possible to decrease administrative expenses by externalising certain employees. In fact, the use of external sources allows firms to decrease labour costs, increase flexibility and focus the investment on the development of this form of knowledge with better potential to build a competitive advantage.

Core knowledge (high value, high uniqueness). When knowledge is highly valuable and unique it provides strategic benefits that exceed the bureaucratic costs associated with their development and deployment. Organisations have incentives to internally develop and invest in this human capital to maximise its value creating potential and

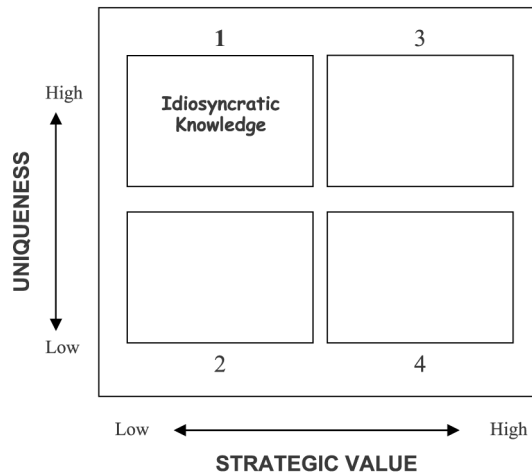
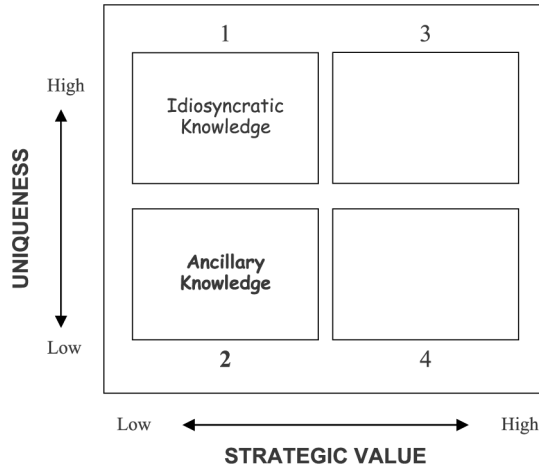


Figure 3.
Forms of human capital

Source: Adapted from Snell *et al.* (1999)

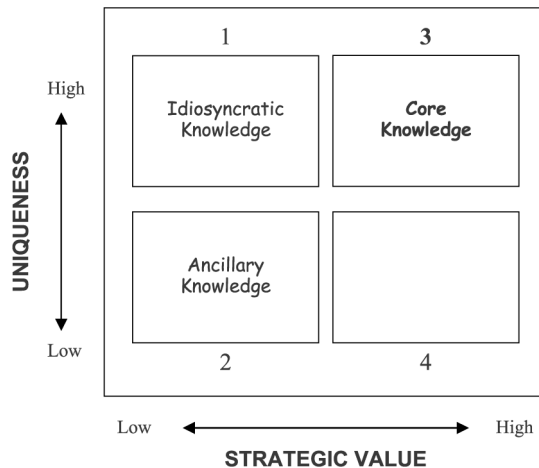


Source: Adapted from Snell *et al.* (1999)

Figure 4.
Forms of knowledge

differentiating characteristics. To do this, organisations may implement commitment-based human resource systems that focus on internal development of skills and long-term relationships (Rousseau, 1995) (see Figure 5).

These systems include such human resource practices as staffing decisions on employee potential (e.g., cognitive ability, aptitude) rather than looking at current knowledge and skills, comprehensive training to develop unique or firm-specific skills, socialisation programs, job enrichment, and cross-functional career paths that encourage employees to build idiosyncratic knowledge (Arthur, 1994; MacDuffie, 1995; Youndt *et al.*, 1996). At the same time, skill-based pay systems and developmental



Source: Adapted from Snell *et al.* (1999)

Figure 5.
Forms of knowledge

performance appraisals may be used to facilitate the development of firm-specific knowledge and competencies (Ordóñez de Pablos, 2004b; Snell *et al.*, 1999).

Compulsory knowledge (high value, low uniqueness). Compulsory knowledge may be a valuable resource. However it is not firm-specific which means that investment decisions for this form of knowledge differ from those forms in Quadrant 3 (core knowledge). Compulsory knowledge is not specific to any particular firm and employees are free, within certain limits, to sell their talents wherever they can achieve the highest returns (Rousseau, 1995) (see Figure 6).

As a result of this transferability, corporations would not be likely to invest in this kind of knowledge. Instead, firms may rely on selective staffing processes to identify potential employees with the appropriate skills to generate immediate productivity. The hiring firm simply pays the market rate or above for these employees and takes advantage of their valuable talents immediately. These practices define a market-based human resource system (Becker, 1964; Lepak and Snell, 1999).

However the opportunity to move to the upper right corner (Quadrant 3) may exist in some cases. For example, if generic knowledge can be transformed into firm-specific knowledge, then investments in specialised skill development may have strategic value for the firm (Snell *et al.*, 1999).

4. Knowledge transfer and key factors

Organisational knowledge transfer is a extremely complex process that faces many obstacles on its way. The tacit nature of knowledge and the diversity of national and organisational cultures is a good example of this.

4.1. Explicit versus tacit knowledge

First we will analyse the relationship between the degree of knowledge transferability and the type of organisational knowledge. It is necessary to differentiate two dimensions in knowledge creation: epistemological and ontological.

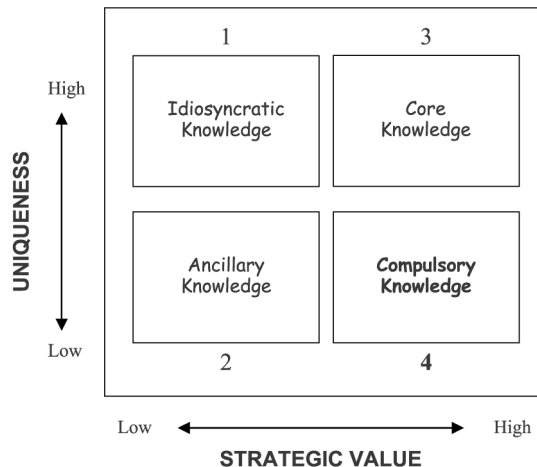


Figure 6.
Forms of knowledge

Source: Adapted from Snell *et al.* (1999)

The first of them distinguishes between explicit knowledge and tacit knowledge. Explicit knowledge is knowledge articulating and codifying in handbooks, computer programs, databases and training tools, among other elements. Then, this knowledge is transmissible (Nonaka and Takeuchi, 1995).

Nevertheless, certain resources based on knowledge, such as skills, competences, capacities, know-how, technology and experience, cannot be completely reduced to codified knowledge (for example, procedures, algorithms, predicting models and theories, formulae or programs). Tacit knowledge is personal, context specific and difficult to regularise. It includes cognitive elements (diagrams, paradigms, prospects, beliefs, points of view, etc.) that help individuals to perceive and define their environment.

On the other hand, it is necessary to outstand the existent relationship between the type of knowledge the firm has and its transferability. Organisations are considered to be depositary of several types of knowledge (explicit and tacit) existing in ontological different levels (individual, group, organisational and interorganisational).

As tacit knowledge character increases, this knowledge becomes less “teachable”, less codifying, and then less transferable. This knowledge transference is complex and difficult for several reasons (Ordóñez de Pablos, 2004b). Among them, the following stand out:

- complex nature;
- acquisition through experience and trial and error;
- teaching and learning, when possible, is developed by observation, imitation and feedback;
- organisational learning generates tacit knowledge that is collective, which even more difficult transfer; and
- although expatriate staff can serve as a substitute for tacit knowledge transference, it becomes a costly process.

Traditional organisation hierarchies are inadequate for creating certain types of knowledge such as tacit knowledge (Nonaka and Takeuchi, 1995). It is not merely structural incompatibility alone that prevents the identification and transfer of knowledge within organisations. The inability to internally share best practices partly explains intra-firm performance differences. Corporations have difficulty in transferring knowledge because they do not know how to do so.

Szulanski (1996) identified four reasons for such internal stickiness:

- (1) the features of the knowledge;
- (2) the recipient;
- (3) its source; and
- (4) its context.

For instance, practices that are identifiable, proven, and generalisable are easier to transfer. Trust-worthy and reliable sources are more credible. Recipients with absorptive capacity are willing to experiment with new practices. Finally, organic structures, systems, and cultures are posited to facilitate such transfers.

A further condition for effective knowledge transfer is the ability of the organisation system units to adapt and apply new knowledge even if it comes from outside the organisation's boundaries. An organisation's capacity to use new knowledge depends on its absorptive capacity (Cohen and Levinthal, 1990), which is a dynamic capability (Zahra and George, 2002).

4.2. National and organisational culture

Most of the organisations have sets of human resource practices and policies that show their idiosyncratic organisational culture. They are based on assumptions, beliefs and duties that executives have on how to manage their employees and change from organisation to organisation. Executives that come from different national cultures formulate different hypotheses regarding the nature of the firm's management and organisation. On the other hand, Laurent (1986) states that an important determinant of these assumptions are not only organisational cultures but also national cultures. For example, human resource practices need to be specifically designed for each national culture, as human resource practices have different meanings for the different cultures.

Moreover, the difficulty or even the impossibility to articulate or codify knowledge limits its interorganisational transferability, and hence, the potential benefits that the firm might achieve by means of the exploitation of its knowledge basis on an international level. Although the features of organisational knowledge are difficult to modify, the transnational corporation can have an influence on the transferability of its knowledge through the design of the human resource management system. Through human resource management policies, the corporation can manage that its employees proactively participate in the sharing and transference of knowledge. Appropriate HR recruitment, selection, training, evaluation and reward policies help in that employees are aware of the benefits derived from sharing knowledge in the firm. Traditionally the philosophy that the organisational knowledge was a source of power reigned – and still does in some corporations – and hence, in order to maintain it, the right strategy was to monopolise relevant knowledge and not share it with other employees.

Nevertheless, recent literature on knowledge management and organisational learning shows the benefits resulting from intraorganisationally transferring the developed knowledge, in such a way that it can be exploited in other locations in the firm, with no need of reversing again resources in its creation.

5. The role of the headquarters and subsidiaries and the knowledge transfers

If a transnational corporation chooses a global orientation and wants to have global response capacity, it must deploy the stock of knowledge jointly (human capital, relational capital and structural capital). Decision-making complexity requires to know the trends and developments throughout the world, as well as to have a deep base of knowledge on local issues. In this sense, the decentralisation of the authority towards affiliate firms needs to be accompanied by knowledge centralisation, without supposing a physical centralisation of people, or a central planning and control of the knowledge flows. Therefore it is necessary to develop a knowledge strategy centrally managed, which leads to the creation and application of strategic knowledge and simultaneously it provides international accessibility to the available knowledge.

Moreover it is necessary to foster strong leadership that supports the sharing of strategic knowledge in the company.

On the other hand, if the transnational corporation aims to be competitive as a whole, it must achieve a balance among the following dimensions:

- the learning capacity;
- the speed to respond to environmental changes;
- the ability to coordinate and integrate knowledge in different locations; and
- capacity to minimise costs (in comparison with competitors).

In the current competitive environment, transnational corporations must know what strategic resources they have and must use this knowledge efficiently. Nevertheless, the geographical size and dispersion make the location of the existent organisational knowledge and its later transference to the place where it is needed really difficult.

Before analysing knowledge flows, we need to define the concept of interorganisational knowledge flows. They represent the transfer of strategic competences, skills and capacities. The differences in knowledge flows models can be gathered through the magnitude and direction of organisational knowledge flows. Combining these factors, Gupta and Govindarajan (1991) suggest that multinationals can be analysed regarding two dimensions:

- (1) to what extent the subsidiary firm takes part in input knowledge flows coming from the rest of the firm; and
- (2) to what extent the subsidiary firm takes part in the output knowledge flows towards the rest of the firm.

The subsidiaries of a transnational have different roles in the knowledge transfer process. They can play the role of local innovator, integrated player, local implementer and global innovator respectively. Let's have a look at these roles:

- (1) *Local innovator role (low output flow, low input flow)*. The affiliated company takes total responsibility for the creation of a relevant know-how. Nevertheless, this knowledge is considered too idiosyncratic to have a competitive use out of the country where the affiliate company is located.
- (2) *Integrated player role (high output flow, high input flow)*. Its role is similar to the Global Innovator's but it also implies a responsibility to create knowledge capable of being used by other subsidiaries. However it is not self-sufficient in when meeting its own knowledge needs.
- (3) *Local implementer role (low output flow, high input flow)*. It relies on input flows coming from the head company or the affiliated companies and therefore it creates little knowledge by itself.
- (4) *Global Innovator role (high output flow, low input flow)*. The subsidiary is a source of knowledge for other units. Historically, this role has been only played by domestic units.

Furthermore, the existence of knowledge anywhere in the organisation does not generate immediately great benefits. That knowledge becomes a valuable organisational resource only if it is accessible. Moreover, its value increases by

means of the level of accessibility. Executives of transnational corporations know how common “reinventing the wheel” is, that is, double the efforts because the knowledge about developed solutions for certain problems have not been shared within the organisation.

There are essential differences among subsidiaries companies in a multinational corporation. Thus a subsidiary may participate with high or low input and output flows depending on the type of particular business.

On the other hand, Kostova (1999) points out that successful transfer of organisational practices depends on:

- the institutional distance between headquarters and subsidiaries;
- the degree of fit between the organisational culture of the recipient unit and the parent;
- the proximity of attitudes of the transfer coalition; and
- the level of dependence of the subsidiary on the parent company.

This theoretical framework leads to the following hypotheses:

- H1.A.* Tacitness has a negative impact on internal knowledge transfer.
- H1.B.* Social complexity has a negative impact on internal knowledge transfer.
- H1.C.* Causal ambiguity has a negative impact on internal knowledge transfer.
- H1.D.* Corporate cultural distance has a negative impact on internal knowledge transfer.
- H1.E.* Organisational cultural distance has a negative impact on internal knowledge transfer.
- H2.A.* Tacitness has a negative impact on external knowledge transfer.
- H2.B.* Social complexity has a negative impact on external knowledge transfer.
- H2.C.* Causal ambiguity has a negative impact on internal external transfer.
- H2.D.* Organisational cultural distance has a negative impact on external knowledge transfer.
- H2.E.* National cultural distance has a negative impact on external knowledge transfer.
- H3.A.* Internal knowledge transfer has a positive impact on organisational performance.
- H3.B.* External knowledge transfer has a negative impact on organisational performance.

With these hypotheses we can build a causal model with the relations of our variables (see Figure 7). Knowledge properties, such as tacitness, social complexity and causal ambiguity as well as other variables like organisational cultural distance and national cultural distance have a negative impact both on internal and external knowledge transfer. Figure 7 represents a holistic model with all these variables.

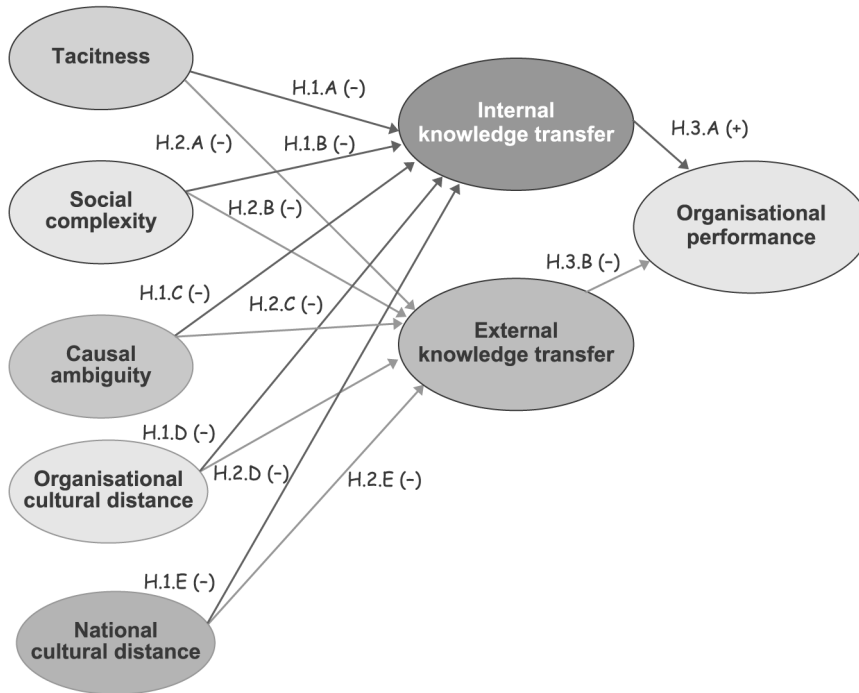


Figure 7.
Knowledge properties-knowledge flow transfer-organisational performance model

Our next research step will be test this model using partial least squares methodology (PLS) and the PLS-GRAPH software developed by Professor Win Chynne.

Partial least square technique is used in a wide range of management areas such as studies of cooperative ventures, global strategy, global integration, and organisational learning and intellectual capital.

As Hulland (1999) suggests, the process of model specification begins by considering the theoretical model underlying a particular research. The causal modelling process begins at conceptual level. Later, three general methodological considerations relevant to the application of PLS in a management research context should be considered: assessing the reliability and validity of measures, determining the appropriate nature of the relationships between measures and constructs and finally interpreting path coefficients as well as determining model adequacy.

Generally a PLS-type model is analysed and interpreted sequentially in two steps (Chin, 1998; Chin and Newsted,1999). The first stage focuses on the assessment of reliability and validity of the measurement model. The second stage deals with the assessment of the structural model.

In order to assess the measurement model, we must examine individual item reliabilities, convergent validity and discriminant validity. In PLS-type models, individual item reliability is assessed by examining simple correlations or loadings. A rule of thumb is to accept items with loading of 0.7 or more. Its means that there is more shared variance between the construct and its measure than error variance. In PLS,

convergent validity is generally reported using the internal consistency measure developed by Fornell and Larcker (1981).

Finally, discriminant validity represents the extent to which measures of a given constructs differ from measures of other constructs in the same model (Hulland, 1999). In order to assess discriminant validity, Fornell and Larcker (1981) propose the use of the average variance shared between a construct and its measures.

8. Conclusions

We have argued in this paper the importance of strategic knowledge flows in transnational corporations. Now we summarise main conclusions and strategic implications.

The current changes in the world competitive environment provide a unique opportunity to examine how organisational globalisation is affecting knowledge transfer and organisational learning. While every foreign subsidiary inherently provides some geographically unique knowledge that allows a parent to exploit opportunities that exist in local resource and/or output markets, the competitive advantage of a transnational organisation lies to a great extent in its ability to identify and transfer strategic knowledge between its geographically dispersed and diverse locations (Bartlett and Ghoshal, 1999; Gupta and Govindarajan, 2001).

Transnational corporations face major challenges in the current competitive environment. First the transnational corporation must learn how to exploit its specific resources -either acquired in the country of origin or in foreign markets. Second, transnational corporations cannot forget that the source of a long-term competitive advantage is focused on the variety of skills and diversity of knowledge. Third transnationals can benefit from international fertilisation, because knowledge exploration and exploitation activities are closely related with the concepts of synergies, interdependences and interactive organisational learning.

The organisational capacity to innovate is not only the sum of discreet capacities but the result of the interrelation among the different units of firm. As a result, the management of knowledge-based resources becomes a key element so that the firm achieves a sustained competitive advantage.

On the other hand, transnational corporations generate synergies through creation, accumulation, transferring and sharing of knowledge existing in different locations. In the same way, the development of these activities in an international landscape adds complexity to them. For example, knowledge transfer in a transnational corporation takes place in a network environment. In this case, the transfer is affected by the properties of knowledge (tacitness, social complexity, causal ambiguity) and the absorptive capacity of the receiver unit. Additionally knowledge transfer is also affected by organisational cultural distance and national cultural distance. According to literature, these variables would negatively impact knowledge transfer. On the other hand, literature suggests that internal knowledge flows contribute to the diffusion and utilisation of knowledge within the firm thus avoiding continuously reinventing the wheel.

It is good for the firm that there are obstacles to knowledge transfer out of the organisational borders therefore avoiding the appropriation by rival firms. However, the same factors that "protect" knowledge also hinder internal transfer and represent

an obstacle for knowledge combination and deployment within the boundaries of the corporation.

In this sense, internal knowledge flows tend to have a positive impact on organisational competitive advantage whereas knowledge flows outside the organisational boundaries have a negative impact on organisational competitiveness. What is the result of these two forces? The answer is not clear. It will depend on organisational efforts to protect its most strategic resource: knowledge.

We hope that this paper provides an impetus for the further examination of the knowledge transfer flow phenomenon through its initial framework with propositions that synthesise and build on the exhaustive (and still developing) literature on organisational learning and knowledge management in transnational corporations.

As further avenue for research, we plan to test this model with a sample of USA pharmaceutical companies with subsidiaries abroad.

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