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Managing knowledge transfer in a multinational acquisition

A study of the factors that enable acquiring firms to successfully obtain intellectual capital from their acquisitions

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(PDF)

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Abstract

Multinational Companies (MNCs) have gained an extremely important role in today's business environment. Within these MNCs two major developments can be distinguished, namely the increasing importance of knowledge management and the big impact of acquisitions. However, both these developments pose considerable problems for its management. Managing knowledge transfer and acquisitions is even more difficult for MNCs than for purely domestic firms, due to geographic disparity.

Since knowledge management and acquisitions play such an important role in today's MNCs and are expected to even increase in importance for tomorrow's, it is essential to continue research in these areas. In both separate areas extensive research has been conducted, but it is only since recent that the two developments have been combined. Therefore, this paper aims to develop a model of required management practices necessary for obtaining the acquired company's intellectual capital. Only when tacit knowledge transfer takes place, intellectual capital from the acquisition can namely be transferred to the acquirer.

To be able to specify these management practices, extant empirical literature on knowledge management and MNC acquisitions to obtain intellectual capital is discussed and analyzed. Based on this the model of required management practices is developed. The elements of this model are then illustrated by the case of Cisco that has a long standing track record of pursuing this type of acquisition deals successfully.

The literature review and development of the model of required management practices necessary for obtaining the acquired company's intellectual capital has led to the formulation of nine areas of management practices that need to be taken care of. Furthermore six internal and six external barriers are pointed out.

With regard to these findings it can be concluded that the active management of integration/socialization mechanisms and taking care of areas of management practices that increase the development of social capital are requirements to success for this type of acquisition. Furthermore, actively managing the human side of the deal is necessary to create the required level of employee retention, involvement and participation. Of course economic and financial considerations still play a role in any acquisition deal. However, when the goal is to obtain intellectual capital, the management of these considerations alone is not enough.

Foreword

International organization and management is one of my main areas of interest within my Msc. in International Business degree. Therefore, when deciding on my thesis subject, I searched for a topic in this field. Since knowledge transfer and acquisitions are both very important themes for international business these days, combining these topics seemed fascinating to me.

Writing my thesis has not always been trouble-free, but I can say that I have learned a lot from it and overall enjoyed the process.

I would like to thank my supervisor, Paul Gooderham for his support and input throughout the entire course of developing my thoughts around the subject and writing. Furthermore, I would like to thank the professors that I have taken courses from during my study at NHH for their inspiration, and the students from all over the world that I have been able to work with and learn from.

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1 Introduction

1.1 Scene setting

Over the past decades, the number and size of Multinational Companies (MNCs) has grown tremendously. On a global basis, MNCs generate about half of the world's industrial output and account for about two-thirds of world trade (Gooderham and Nordhaug, 2005).

Within these MNCs a first development that can be clearly distinguished is that the interest in knowledge, its sources and transfers, has been expanding (Gupta and Govindarajan, 2000). MNCs are no longer seen as repositories of their national imprint but rather as instruments whereby knowledge is transferred across subsidiaries, contributing to knowledge development (Holm and Pedersen, 2000). It is believed today by numerous researchers and managers that knowledge is one of the strongest sources of sustainable competitive advantage for MNCs. The importance of developing and sharing knowledge in order to stay competitive for the future has been underlined by many (cf. Hedlund, 1994; Grant, 1996). Consequently, the management of knowledge in terms of an ability to assemble, create, share, and utilize it across business units becomes an increasingly important and necessary feature within MNCs (Lagerström and Andersson, 2003).

Though Gupta and Govindarajan state that MNCs are capable of intra-corporate transferring and exploiting of knowledge that is more effective and efficient than through external markets, it is a fact that not all multinationals are able to do this to the same extent. From a research point of view, among others, Birkinshaw and Arvidsson (2007) argue that 'how to make effective use of their collective knowledge' is a fundamental challenge for MNCs. From a more practical managerial point of view, an article by Lowell (2004) in the McKinsey Quarterly states that though companies in today's economy find that their primary source of competitive advantage lies in knowledge, it is in practice difficult to take advantage of all this knowledge.

A second development that has taken place over the past decades, mainly within MNCs, is the enormous increase in Mergers and Acquisitions (M&As). These days, many big companies owe much of their success to skilful acquiring. A good example of such a company is Cisco Systems, which often is described as a serial acquirer. Between 1994 and 2000, it acquired some 50 companies at a cost of around $20 billion. Although the mega deals mainly receive the media attention, numerous medium-sized companies use acquisitions to further develop their specialist and innovative capabilities.

To get a feel of the size of the M&A development: the value of M&A deals increased by approximately 900% between 1992 and 2002. According to Thomson Financial, 2007 was a record year for M&As. The world-wide volume of announced deals totaled $4.5 trillion last year, which is a 24% increase from 2006. Though these numbers imply many advantages of M&As, it is well known that as many as 7 out of every 10 deals fail to generate the shareholder value they were expected to provide. This is true in 'up' as well as 'down' markets (cf. PricewaterhouseCoopers report, 2008; Greenberg and Guinan, 2001; Peng, 2006). Yet, while M&A activity has slowed in the current economic downturn, it continues to be viewed as an engine for growth and value (Greenberg and Guinan, 2001). When a company seeks to grow and add technologies or resources rapidly, M&As continue to be the preferable option.

That MNCs play a majorly important role in today's business environment can not be discarded. The fact alone that they generate about half of the world's industrial output and account for about two-thirds of world trade is enough to show this. The most crucial of the many challenges faced by managers of these MNCs is the generation and transfer of knowledge across national settings, organizations and networks (Gooderham and Nordhaug, 2005). When a MNC undertakes an acquisition to obtain the acquired company's intellectual capital, this challenge becomes even more apparent. Only when tacit knowledge transfer takes place, intellectual capital from the acquisition can namely be transferred to the acquirer. Therefore tacit knowledge transfer has to be managed accurately while at the same time taking care of all issues that play a role during a multinational acquisition. Not only is the impact of MNCs on business in general bigger than the impact of purely domestic firms, they also undertake the great majority of acquisitions and are often more dependent on effective knowledge transfer and acquisitions than purely national firms. Their dependence on knowledge transfer is supported by Gupta and Govindarajan's (2000) statement that it is widely accepted that the more effective intra-corporate knowledge transfer, compared to transfer through external market mechanisms, is the primary reason for MNC existence.

Although these two events play such an important role for MNCs, it can easily be argued that the management of knowledge transfer and acquisitions are harder for international companies than for purely national firms. That is to say, their geographic disparity adds difficulty to managing these two events successfully. The geographic disparity namely causes cross-border differences, leading to language barriers, cultural distance, as well as economic and educational distance. Furthermore the geographic disparity complicates integration and socialization, which on their turn can lead to a higher degree of uncertainty and lack of trust. All of these form an obvious barrier to tacit knowledge transfer and therefore acquisitions success when the aim is to obtain the acquired company's

intellectual capital. Moreover, issues that play a role even in purely domestic acquisitions can become more troublesome in an international setting. The reason is that communicating across long distances, misunderstandings arising from different business norms, and fundamental differences in management style are continuously present. Differences in the legal environments across borders can also complicate this type of deals by delaying the process.

This thesis deals with acquisitions that take place to obtain the acquired company's intellectual capital specifically within MNCs. This is the case, because of the impact of MNCs on today's business environment, the importance that knowledge management and M&As play for them and the added difficulties that arise from geographic disparity within MNCs. The aim of this thesis is to develop –on the basis of a review of extant empirical literature- a model of required management practices. This model is developed for use by managers within MNCs. It is developed specifically for MNCs, because there are particular areas that need to be managed for multinational acquisitions, while they do not play a role at all or are of lesser importance in purely domestic acquisitions with the same objective, because of the additional complications discussed in the foregoing paragraph.

Because knowledge transfer and acquisitions play such important roles in today's MNCs and are expected to even increase in importance for tomorrow's, it is essential to continue research in this area. In both separate areas extensive research has been conducted, but it is only since recent that these two developments have been combined, by looking at how to manage knowledge transfer in M&As. In the beginning, M&A deals were mainly conducted to obtain financial and physical assets. However, nowadays MNCs increasingly value and emphasize the intellectual assets that can be gained through M&As. Many of these assets are people based, and form therefore a bigger challenge in terms of management. A research conducted by Greenberg and Guinan (2001), confirms this point of view by showing that successful M&As in knowledge-intensive businesses are usually hampered by both a loss of knowledge and poor employee perception of the target or acquirer.

One of the main multinational knowledge-intense sectors that pursues a high level of M&As is the global technology sector. According to PricewaterhouseCoopers' M&A Insights report (2007), the aggregate value of M&A deals in this specific sector increased by 2% in 2006 relatively to 2005, and by doing so broke through the €100 billion barrier. Volumes stayed roughly the same, with 582 deals representing a 1% decline in number. These numbers clearly show how important M&As are for this business area. Within the global technology sector, Software and IT Services remained the dominant sub-sector for 2006; representing 66% of all deals globally, comparable with previous years.

In terms of studying knowledge management, Lowendahl, Revang and Fosstenlokken (2001) argue that it is preferable to use Professional Service Firms (PSFs), such as engineering, advertising, consulting, accounting firms, etc. They reason that it is more likely to obtain insight through studying extreme cases, than studying traditional firms. From their point of view, PSFs represent such extreme cases, as they employ a very high percentage of highly educated people, and are extremely dependent on their ability to attract, mobilize, develop and transform the knowledge of these employees to create value for their firms. Because of their dependence on knowledge, PSFs were among the first to develop knowledge management systems. Traditional firms can work with many standardized processes and machines, which make people more easily replaceable. Most of the knowledge of this type of firms can be made explicit and transferred without difficulty. In PSFs on the other hand, the main asset of the firm is its knowledge, and for the most part this is tacit. Professionals namely learn continuously from the clients they work for and the projects they engage in. Moreover, PSFs form a more extreme case than traditional firms, i.e. manufacturing companies, because the knowledge workers can be redeployed more flexibly than most machines that manufacturing companies are dependent on. Yet they can also refuse to do what they personally do not see fit. This makes effective management of the tacit knowledge that resides in the PSF's employees even more essential.

The case study conducted at the end of this thesis in order to illustrate the required management practices and issues involved in obtaining an acquisition's intellectual capital takes place in the IT industry. For this industry is chosen, because it is part of the global technology sector, which as discussed above is a knowledge-intense sector that pursues a high level of M&As. The case study concerns the successful serial acquirer Cisco and is conducted to analyze its acquisition and knowledge transfer strategy. The rationale behind the majority of its deals is obtaining the acquisition's intellectual capital. The MNC Cisco can be categorized as a PSF in engineering. The company operates in an industry where the average product life cycle is estimated to be 6 to 18 months. This makes ongoing developments in products and technology a necessity. Therefore Cisco works with highly educated employees and value creation for the company is knowledge intensive. The ongoing research and development that takes place at Cisco requires working with experts in the field, developing customized solutions, and interaction with the customer. These features make Cisco a PSF.

1.2 Research question

As described above, MNCs have gained an extremely important role in today's business environment. Within these MNCs two major developments can be distinguished, namely the increasing importance of knowledge management and the big impact of M&As. Both these developments pose problems for its management. These problems are even more apparent within MNCs than within purely domestic firms, because of geographic disparity. That M&As pose problems to managers within MNCs is clearly proven by the fact that 70% do not deliver expected shareholder value. When examining the success of knowledge management, a Bain and co. study found that while some companies were 'extremely satisfied' with their progress in knowledge management, the majority expressed a below-average level of satisfaction (Birkinshaw, 2001). In a survey of European and US companies (Ruggles, 1999), the results were even more worrying. Only 13% of respondents rated their ability 'to transfer existing knowledge within the organization' as good or excellent, and 'measuring the value of knowledge assets and/or the impact of knowledge management' was rated good or excellent by only 4% of respondents (Birkinshaw, 2001).

As described above as well, the reasoning behind M&As is slightly shifting, and a growing number of deals are pursued in order to gain the acquired company's intellectual capital. In such deals management has to pay attention to difficulties from both areas, managing an M&A and managing knowledge transfer at the same time, since the success of the M&A is determined by obtaining the acquired company's intellectual capital. This intellectual capital can only be obtained when tacit knowledge is transferred from the acquisition to the acquiring company. Deals of which the only or main objective is obtaining the acquisition's intellectual capital, are acquisitions rather than mergers, as the scope of a merger is too big to just focus on one asset.

Because of the increasing importance of this field of management, the clear difficulties it poses to managers of MNCs, and the relatively little research that has been conducted so far on the combined topic, this paper will deal with the management of knowledge transfer in acquisitions by MNCs.

Furthermore it was described in the 'scene setting' that the global technology sector, and specifically the IT subsector, is a knowledge-intense area in which many M&As are pursued. It was also argued that in terms of studying knowledge management PSFs are preferred. Since the IT industry carries both features of being a sector with a high number of acquisitions and includes PSFs as argued before, the case study conducted at the end of this thesis takes place in this sector.

Therefore the research question of this paper is as follows:

What factors enable acquiring multinationals to successfully obtain intellectual capital from their acquisitions?

The issues will be illustrated through an analysis of Cisco's acquisition strategy. Cisco is chosen, because it is a multinational company in the IT sector that can be described as a successful serial acquirer. For the vast majority of its acquisitions, obtaining the acquired firm's intellectual capital is the main rationale behind the deal. Therefore, looking into Cisco's acquisition and knowledge transfer strategy can point out many factors important for this type of deal.

1.3 Scope

This paper deals with acquisitions and knowledge transfer within MNCs. The name MNC is used for firms that have substantial direct investment in foreign countries that they actively manage (Bartlett and Ghoshal, 1995). This paper concentrates on wholly owned, or majority owned subsidiaries that are geographically dispersed and are combinations of heterogeneous technological competencies and product-market responsibilities (Hansen and Løvås, 2004, p. 802). Therefore, export oriented firms, or foreign investments that are not strategically integrated, are beyond the scope of this paper. Moreover, joint ventures and strategic alliances will not be dealt with in the context of this paper, though they are recognized within an MNC context.

To be able to answer the research question, this paper starts off with secondary research on knowledge transfer and its management. Regarding knowledge transfer, this paper concentrates on transferring tacit knowledge or 'know-how' rather than explicit knowledge or 'know-what'. The main focus is on the implementation of socialization factors and development of social capital that should take place and managed thoroughly in order to make knowledge transfer occur. Important aspects within this chapter are defining when knowledge transfer in an existing MNC is successful and which management practices should be in place to reach this success.

The paper then continues with secondary research on MNC acquisitions to obtain intellectual capital. Though, in the introduction the term M&As was used rather than just acquisitions, mergers are beyond the scope of this thesis. This is because in this paper's context the main or only goal of the acquisition is obtaining the acquired company's intellectual capital. However, because the term M&A is used in a combined manner and/or interchangeably in much of the literature, some parts of the literature review will be based on M&As rather than just acquisitions. The secondary research on

acquisition deals is focused on managing the 'people's issues' and the 'bridging of the corporate cultures', rather than on the financial or physical asset aspects of the deals. Since the aim of this thesis is to develop – on the basis of a review of the extant empirical literature- a model of required management practices necessary for obtaining the acquired company's intellectual capital, other areas that are important in acquisitions but not for the actual knowledge management within the process are beyond the scope of it. Important aspects within this chapter are defining the factors that make acquisition with this rationale successful.

The following chapter then deals with combining the gained insights of the two previous chapters by identifying how the event of an acquisition differs from an existing MNC and what the implications on knowledge transfer therefore are. In this thesis, it is tried to arrive at an answer to the research question by developing a model of required management practices necessary for obtaining the acquired company's intellectual capital.

After a proposed answer in the form of a model is reached, a case study on Cisco, a serial acquirer within the IT industry, is conducted. Acquiring other companies is an important strategy for Cisco, mainly to obtain the acquisition's knowledge and technology, and by doing so rapidly offer new products. Since 1993, Cisco has acquired over 120 companies. Many of them are small companies, close to launching commercial products. Cisco acquires these new product teams, as it takes too long to pull them together themselves from scratch. Cisco's acquisitions form a good example in the context of this paper, as it is a MNC in the IT industry and its deals show perfectly what issues play a role in deals with as rationale obtaining the acquisition's intellectual capital in line with the research question of this thesis. This case study is therefore used to illustrate the issues that play a role in this type of deal and test the model developed in the foregoing chapter.

This thesis finishes off with a conclusion on the research question towards management practices that should be in place in order to enable acquiring firms to successfully obtain intellectual capital from their acquisitions.

1.4 Contribution

The aim of this paper is to provide a contribution to the design of management practice. In answering the research question the main goal is to develop – on the basis of a review of the extant empirical literature- a model of required management practices necessary for obtaining the acquired

company's intellectual capital. The elements of this model are illustrated by the case of Cisco that has a long standing track record of doing this successfully.

These management practices are focused on integrating and transferring the intellectual capital of the acquired company into the parent organization. This thesis mainly provides guidance on the people's issues, the development of social capital and socialization factors that have to be in place, paid attention to, and managed.

2 Research design

As was argued by De Vaus (2002): 'The function of a research design is to ensure the evidence obtained enables us to answer the initial question as unambiguously as possible'.

2.1 Qualitative research

In order to answer the research question, this paper is based on qualitative research. Qualitative research provides the opportunity to collect, analyze and interpret data in a subjective by using various methods of collecting information (Bryman, 2004). This type of research is valuable when information on processes is sought and new phenomenons are explored (Marshall and Rossman, 1995). Since this paper aims to develop a model of required management practices necessary for obtaining the acquired company's intellectual capital, qualitative research has the preference. This is the case because different types of previous research have to be combined in order to obtain the best results and will then be tested on a subjective, namely Cisco. Furthermore, this thesis deals for a large part with information on processes within MNCs, namely knowledge transfer and acquisition processes, as well as with a relatively new phenomenon where the acquisition takes place with the main aim of obtaining intellectual capital. Moreover, the use of quantitative data would form a bigger restriction, as this type of analysis is statistical and solely based on numbers and measurements. This paper's focus is on management, people's issues, the creation of social capital and socialization factors, which are highly social issues that are rather difficult to measure in a quantitative manner. These subjects involve an in-depth understanding of human behavior and the reasons that govern this behavior. Therefore qualitative research is chosen.

2.2 Secondary research

This paper involves secondary research, as data will be collected from different sources, namely:

- Articles: papers on existing research regarding acquisitions as well as knowledge transfer are used in order to be able to provide a critical literature review on both subjects.
- Books: to provide background information on the subjects of acquisitions and knowledge transfer, several books are drawn on.
- Newspapers: in order to provide up-to-date examples on the subject, like issues facing the Microsoft-Yahoo merger, as well as building the case around Cisco's acquisition strategy, newspapers are made use of.

- Market and industry reports: reports from for example PricewaterhouseCoopers, Bain, McKinsey, PA Consulting Group and Watson Wyatt are used in order to present the practical managerial points of view next to the research viewpoints. This is necessary to be able to provide a useful contribution to the design of management practice.
- Cisco’s websites and annual reports: Among other sources, like newspapers and existing articles, Cisco’s company website and annual reports are utilized to build a case study around this company in the context of this paper.

2.3 Practice-oriented research with case study design

Finally, the research methods used can partially be classified as practice-oriented research, as the outcome aims to provide guidance on management-practice. A case-study design is chosen for the last part of this paper in order to test the model developed, mainly based on extant empirical literature. A case-study design was chosen, since this is appropriate when explorative questions are asked and when a contemporary phenomenon is in focus. Case study research can make use of several means of data collection (Yin, 1993). In this paper, the most important means is written material about the MNC Cisco.

3 Knowledge transfer

3.1 What is understood from knowledge transfer

*'In an era characterized by globalization, the speed of technological change, the reduction of product life cycles, tighter development times and the blurring of the boundaries between industries, the maintenance of competitive advantage by organizations depends mainly on broadening and continually renewing their capabilities by developing, capturing and applying new sources of knowledge (*Casal and Fontela,2007)*.'*

3.1.1 Defining knowledge transfer

Over the past decades, the attention devoted to the knowledge at hand in MNCs, its sources and transfer has increased considerably (c.f. Holm and Pedersen, 2000; Björkman, Fey, Minbaeva, Park and Pedersen, 2003). As endorsed by Lowendahl, Revang and Fosstenlokken (2001), knowledge is a term with many and partly conflicting definitions. It can be divided into different categories according to who it is held by -individual versus organizational/collective knowledge- as well as into different sorts according to its form and content. The latter is discussed in paragraph 3.1.3. With regard to individual versus organizational/collective knowledge, this paper is concerned with transfer of the both, as 'organizational knowledge is contingent upon an ability to institutionalize individual-based knowledge with the intention of making it available to other organizational members' (Lagerström and Andersson, 2003).

When speaking about MNCs' knowledge stocks, the term intellectual capital plays an important role. This is even more so the case for this thesis, as the research question is specifically concerned with defining the factors that enable acquiring MNCs to successfully obtain intellectual capital from their acquisitions. This paper follows Baker and English's (2006) definition of intellectual capital as being 'knowledge that can be converted into value and profits'. Baker and English then divide intellectual capital into three types: human capital, intellectual assets and intellectual property. Though, acquisitions to acquire a company's intellectual capital take place for these three reasons together, this paper is mainly concerned with the transfer of human capital. This is the case, because human capital transfer is most difficult to achieve, as it is not codified like the other two types. Furthermore it is of great importance, since it forms the source for the other two intellectual capital forms. According to Baker and English (2006), human capital consists of tacit knowledge held by people, including their know-how, skills, experiences and creativity.

The knowledge transfer process has been defined by many scholars. Björkman, Fey, Minbaeva, Park and Pedersen (2003), as well as Baker and English (2006), stress the different stages of the process in their definitions. By doing so, they reach the following description: 'knowledge transfer between organizational units is a process that covers several stages starting from identifying the knowledge over the actual process of transferring the knowledge to its final utilization by the receiving unit' (Baker and English, 2006). This paper uses in line with Bresman, Birkinshaw and Nobel (1999) the concept of the accumulation or assimilation of new knowledge in the receiving unit, because it clearly points out what the transfer process is about. However, the final utilization by the receiving unit is recognized as the most important aspect of successful knowledge transfer, as it determines whether the process was successful (c.f. Gooderham, 2007; Baker and English, 2006; Adenfelt and Lagerström, 2006; Björkman, Fey, Minbaeva, Park and Pedersen, 2003).

Knowledge transfer is not a random process, since organizations can establish a number of policies and practices to facilitate it (c.f. Inkpen, 1998; Björkman, Minbaeva, Park and Pedersen, 2003). Being able to engage in knowledge sharing namely requires interaction and communication between the sharing and receiving unit. Compatible practices thus affect whether and how knowledge developed by one unit can be shared and used by other units (Kogut and Zander, 1992; Adenfelt and Lagerström, 2006). Therefore this thesis attempts to lay out management practices required to succeed in human capital transfer in the event of an acquisition.

3.1.2 Importance

A firm's knowledge base and intellectual capital is considered as its resource with the greatest ability to serve as a source of sustainable competitive advantage in the 21st century (c.f. Dierickx and Cool, 1989; Lippman and Rumelt, 1982; Gupta and Govindarajan, 2000; Afiouni, 2007). It is even widely accepted that the more effective intra-corporate knowledge transfer, compared to transfer through external market mechanisms, is the primary reason for MNC existence (Gupta and Govindarajan, 2000). Effective knowledge transfer benefits organizations by avoiding defects and waste, while enhancing better products and services to customers faster (Baker and English, 2006). As current globalization, decreased time-to-market and life cycles, and the revolution of information technology require higher organizational efficiencies; effective management of knowledge transfer has become a must for MNCs. This is even more so the case with the upcoming retirement of 77 million baby boomers and the growing pool of proven, valuable and profitable best practice business knowledge available (Baker and English, 2006). A study carried out by McKinsey, showed that companies successful in knowledge management cut throughput times by an average of 11% from 1995 to 1998, compared to 1.6% at the less successful companies. Development time at the successful companies

fell by 4.6% in the same period, compared to just 0.7% at the less successful ones (Hauschild, Licht and Stein, 2001). Rogers (2007) subscribed knowledge as ‘a precious commodity, expensive to procure, difficult to manage, yet essential for successes’. This quote illustrates the fundamental challenge for MNCs to successfully manage and effectively make use of their available knowledge.

3.1.3 Types of knowledge

As mentioned in the first paragraph of this chapter, knowledge can be categorized according to its form and content. With regard to this, a number of typologies have been used, such as embodied versus embedded knowledge (Granovetter, 1985), knowledge as intrinsically versus instrumentally valuable (Degenhardt, 1982), scientific versus practical knowledge (Hayek, 1945), and know-what versus know-how (c.f. Kogut and Zander, 1992; Gupta and Govindarajan, 2000). The most frequently used and drawn upon in this paper is the distinction between tacit and explicit knowledge proposed by Polyani (1962) and later utilized by other authors. Explicit knowledge is codifiable and objective and therefore easily transmitted, conceptualized and stored, with little cost. Tacit knowledge on the other hand, resides within individuals and is non-codifiable, acquired through experience, personal and subjective. These features make tacit knowledge difficult to formalize and transmit, leading to high costs. Much of organizational knowledge is tacit (Cook and Yanow, 1993) and it is this type of knowledge that has strong potential to be a source of competitive advantage, because it is difficult to assess from the outside. On account of its importance and transfer complexity, this paper is specifically concerned with practices that enhance tacit knowledge transfer.

3.1.4 Role of subsidiaries

Historically, MNCs developed their products and knowledge at home in their headquarters, to subsequently transfer these innovations and other types of gained knowledge to their subsidiaries. The only R&D taking place in subsidiaries was competence exploiting, as it was devoted to adaptations to local tastes or consumer needs, and adaptations of processes to local resource availabilities and production conditions (Cantwell and Mudambi, 2005). This led to unidirectional knowledge transfer from the MNC headquarter to the subsidiaries. In current days, however, subsidiaries have been integrated closer into the international MNC network and many have gained a competence creating mandate instead. By doing so subsidiary-specific advantages can be incorporated by the MNC. This development has led to bi-directional, or even multi-directional knowledge transfer between knowledge-rich equals within MNCs (c.f. Cantwell, 1989, 1994; Gooderham, 2007).

Obviously, there is a substantial difference in the roles subsidiaries play within MNCs, as some play a strategic role while others settle into a more constrictive one (c.f. Bartlett and Ghoshal, 1989; Birkinshaw, 1997; Gupta and Govindarajan, 1994; Hedlund, 1986; Andersson, Bjorkman and Forsgren, 2005). The content of the subsidiary's individual relationships is regarded as an important aspect of embeddedness in the MNC (Andersson, Bjorkman and Forsgren, 2005). Furthermore, Frost, Birkinshaw and Ensign (2002) specify the dynamism of the location, subsidiary level autonomy, the degree of integration of competence-creating activities between the subsidiary and other parts of its group, as well as the extent of support from the parent company as the conditions that influence the ability of a subsidiary to become a centre of excellence for its group with a competence-creating mandate from which knowledge is transferred. This can also be seen from two observations made by Lagerström and Andersson (2003), namely that important knowledge is created at local business units and that there are benefits from leveraging this local knowledge to the global level. The research question of this paper supports these observations as it is concerned with knowledge transfer from the acquired subsidiary to the acquiring mother company.

3.1.5 Outcome

The notions that a firm's knowledge base, in recent days, is the resource most likely to form its main source of sustainable competitive advantage, and that MNCs exist primarily because of their superior ability -compared to external market mechanisms- to engage in internal knowledge transfer, do not mean that knowledge transfer actually takes place effectively and efficiently on a routine basis (Gupta and Govindarajan, 2000). The type of knowledge dealt with in this paper, tacit knowledge, is particularly sticky by nature, what makes knowledge sharing far from easy. In addition to this, organizations involve political and social processes that impede knowledge flows (Birkinshaw and Arvidsson, 2007). This leads to the fact that knowledge transfer capabilities of MNCs vary greatly.

When examining the success of knowledge management, a Bain and co. study found that while some companies were 'extremely satisfied' with their progress in knowledge management, the majority expressed a below-average level of satisfaction. And in a survey of European and US companies (Ruggles, 1999), the results were even more worrying. Only 13% of respondents rated their ability 'to transfer existing knowledge within the organization' as good or excellent, and 'measuring the value of knowledge assets and/or the impact of knowledge management' was rated good or excellent by only 4% of respondents (Birkinshaw, 2001). However, though knowledge sharing may be difficult, it is not impossible. While the numbers above appear low, a study by Birkinshaw and Arvidsson (2007) found that there are also some occasional bright spots. A company's ability to transfer tacit knowledge is namely greatly influenced by certain external factors as well as managerial practices

implemented, which will be discussed in general in the next paragraph, and in more depth in the paragraphs 3.2 and 3.3.

3.1.6 Social capital theory

In common with a number of authors, a paper by Gooderham (2007) focuses on social capital and the necessity of developing it in order to reach sufficient knowledge transfer. Nahapiet and Ghoshal's (1998) concept of social capital identifies the determinants of the internal environment of MNCs that increase the efficiency of knowledge transfer by encouraging cooperative behavior. Three dimensions of social capital can be distinguished, namely the relational, the cognitive and the structural. The development of these three facets within an MNC are especially important for the purpose of this paper, as transferring tacit knowledge is sought after while the acquisition leads to high levels of change, uncertainty, and sometimes resistance.

'The relational dimension of social capital refers to such facets of personal relationships as trust, obligations, respect and even friendship, which together increase the motivation to engage in knowledge exchange and teamwork' (Gooderham, 2007). In the event of an acquisition to obtain intellectual capital, lack of this relational dimension and thus lack of trust, make transfer of tacit knowledge in the beginning phase very difficult. Therefore extensive integration efforts are of great importance.

'The cognitive dimension refers to shared interpretations and systems of meaning, and shared language and codes that provide the foundation for communication and is a prerequisite for developing trust and thus knowledge transfer' (Gooderham, 2007). Cognitive social capital, such as a shared language and interpretations, leads to a higher degree of relational social capital as it enhances communication that is required for the development of personal relationships.

'The structural dimension of social capital refers to the presence or absence of specific network or social interaction ties between units of the MNC and the overall configuration of these ties' (Gooderham, 2007). This dimension 'influences the development of the relational and cognitive dimension of social capital' (Nahapiet and Ghoshal, 1998) and by doing so the transfer of knowledge. Sufficient structural social capital is needed to develop cognitive and relational social capital. For tacit knowledge transfer particularly, rich patterns of interaction are required.

As pointed out before, this thesis is concerned with the development of a model of required management practices necessary for obtaining the acquired company's intellectual capital. Only

when tacit knowledge transfer takes place, intellectual capital from the acquisition can be transferred to the acquirer. It was discussed in paragraph 3.1.3 that tacit knowledge resides within individuals and is non-codifiable, acquired through experience, personal and subjective. As will be explained in more detail further on in this paper, this means that practices have to be established that are targeted to the human side of the acquisition and enhance the degree of social capital within the company. The concept of social capital namely identifies the internal environment of MNCs that increases the efficiency of knowledge transfer by encouraging cooperative behavior, as can be seen from the foregoing discussion. Therefore an important function of the required management practices that will be part of the final model of this thesis is to enhance the degree of social capital. The concept of social capital will thus be used throughout this paper to explain the necessity of certain areas of management practices.

3.2 External influences on knowledge transfer

As pointed out before, certain external factors significantly influence a company's knowledge transfer capability. This paragraph discusses the most important external factors in this context.

3.2.1 Cross-border differences

As stated by Holm and Pedersen (2000), 'MNCs are no longer seen as repositories of their national imprint but rather as instruments whereby knowledge is transferred across subsidiaries, contributing to knowledge development'. For the purpose of this thesis this is an important quote, because it shows the significance of multi-directional knowledge transfer. Since knowledge transfer from the acquisition to the acquiring firm is dealt with here, the fact that the MNCs nationality no longer determines how this takes place can be very positive and lead to higher efficiency, but can also cause extra difficulties. Within a MNC, acquisitions often take place across borders and cross-border differences then influence knowledge transfer success, meaning they should be thoroughly managed.

Rogers (1995) argues that intra-unit similarities about, among others, beliefs, education and social status lead to shared common meanings, a mutual subcultural language and comparable personal and social characteristics, which enhances knowledge transfer. In cross-border acquisitions these intra-unit similarities often exist to a much lower extent, leading to hurdles in the knowledge transfer process. Gooderham (2007) differentiates among these intra-unit similarities and finds varying effects of different dimensions. The dimensions specified by Gooderham are based on Ghemawat's

(2001) CAGE distance-framework that distinguishes among spatial distance, cultural distance and economic distance. This paper follows this reasoning as it is further developed and more specific.

Degree of spatial distance

Greater spatial distance is argued to lead to weaker tacit knowledge transfer as it restrains opportunities for social interaction and thus limits the creation of social capital.

Degree of cultural distance

The same effect is attributed to cultural distance, because considerable effort is required to develop a shared language and shared experiences. Without the presence of these, cognitive social capital is rather impossible to create, leading to problems in tacit knowledge transfer.

Degree of economic/educational distance

Economic and educational distance, on the other hand, are claimed to have the adverse effect. Supported by an investigation by Gupta and Govindarajan (2000), lesser economic distance is said to lead to weaker tacit knowledge transfer, as the investigation shows that knowledge transfer is more challenging when the receiving unit is situated in a country with a relatively high per capita income. A plausible reason for this finding is the emergence of the 'not invented here' syndrome when the knowledge providing and receiving unit are on par in educational terms, leading to the statement that lesser educational distance has a negative effect on tacit knowledge transfer.

3.2.2 Other external factors

Size

A study by Ahuja and Katila (2001) found that within technological acquisitions absolute size of the acquired knowledge base enhances innovation performance, while relative size of the acquired knowledge base reduces innovation output. This is significantly important in the perspective of this paper, as it is concerned with acquisitions with the main objective of acquiring intellectual capital. It shows that absolute and relative size of the acquired knowledge base influence knowledge transfer and thus deal success.

Inter-unit rigidities and constraints

A study by Dyer and Hatch (2006) revealed that network constraints, like customer policies or constraints imposed by the customer, together with internal process rigidities that increase the cost of implementation of new knowledge, can form a serious barrier to knowledge transfer.

Tacitness

Tacitness of knowledge is a widely recognized barrier to its transfer and replication (c.f. Gupta and Govindarajan, 2000; Lippman and Rumelt, 1982; Polyani, 1966). Nonetheless, since this paper solely copes with tacit knowledge, this factor has little or no additional influence.

Absorptive capacity

It has been proposed in the knowledge transfer literature that the absorptive capacity of the receiving unit is the most significant determinant of knowledge transfer within MNCs (c.f. Gupta and Govindarajan, 2000; Björkman, Fey, Minbaeva, Park and Pedersen, 2003). Absorptive capacity can be defined as the 'ability to recognize the value of new information, assimilate it, and apply it to commercial ends' (Cohen and Levinthal, 1990). It is mainly influenced by the employees' prior knowledge, though intensity of effort and intra-unit similarities in certain attributes, also play a role (c.f. Gupta and Govindarajan, 2000; Björkman, Fey, Minbaeva, Park and Pedersen, 2003). Since this paper deals with acquisitions of knowledge-rich subsidiaries, the main factor of absorptive capacity, the employees' prior knowledge, is not an issue as such. Therefore, absorptive capacity is not seen as a major determinant for knowledge transfer in the context of this paper. The same can be said about intensity of effort, following the reasoning that effort can be influenced through management practices and therefore is not regarded an external factor. Intra-unit similarities, however, can significantly influence knowledge transfer ability for reasons even beyond effects on absorptive capacity of the receiving unit. However, these dimensions and their effects have been discussed in more detail in paragraph 3.2.1.

3.3 Practices needed for successful knowledge transfer

Knowledge management is typically defined to be the holistic combination of measures for managing people, processes, and technology (Afiouni, 2007). This paper discusses all different types of practices needed, but the main focus is on socialization mechanisms. The reason is that while much of the early knowledge management literature mistakenly thought of it as primarily an information technology tool, this has changed, such that the importance of human and social factors has been increasingly recognized. Personnel issues and social interactions are now regarded as the key factor most likely to affect the outcome of knowledge management initiatives, while information technology is considered to have a rather supportive function (Afiouni, 2007; Baker and English, 2006; Lagerström and Andersson, 2003). The nature of tacit knowledge specifically means that the involvement of the person who possesses it is required for it to be shared (Afiouni, 2007).

As mentioned before, a company's ability to transfer tacit knowledge is greatly influenced by certain external factors as well as managerial practices implemented. The external factors mentioned, either facilitate or impede knowledge transfer. However, even under favorable circumstances knowledge transfer is far from easy for MNCs, as could be seen from the paragraph on outcome. Therefore, for successful knowledge transfer to take place there must be significant internal coordination in the sense of organizational capabilities that are consistent over time and that promote linkages across units (Gooderham, 2007). Different types of practices need to be implemented in order to reach this goal and to overcome internal political and social processes that hinder knowledge flows. In this section the different internal barriers to knowledge transfer are discussed. Furthermore managerial practices to overcome these barriers and to enhance knowledge transfer are laid out.

3.3.1 Internal barriers

Internal barriers to knowledge transfer differ from external factors in the way that they can be stronger influenced through managerial practices. In most cases they have to do with either perceptions of competition by knowledge providers (Hansen, Mors and Løvås, 2005; Tsai, 2002; Haas and Hansen, 2007) or with lack of trust between providers and receivers (Levin and Cross, 2003; Haas and Hansen, 2007). Both types of barriers lead to a low motivation of at least one of two parties involved, to take part in knowledge transfer activities. Gupta and Govindarajan (2000) classify these barriers as motivational dispositions and lay out that they can occur on both the source unit's as well as the target unit's side. The source unit may view its uniquely valuable knowledge as a means through which it can acquire and retain relative power within the organization (Gupta and Govindarajan, 2000). If it feels that the return for sharing this knowledge is unfair and has a negative overall effect for them, it will block knowledge transfer. Motivational disposition of the target unit can be explained with the 'not invented here' syndrome. According to Gupta and Govindarajan (2000), this syndrome has at least two drivers, namely: (i) some managers blocking information that might suggest that others are more competent than they are, or (ii) power struggles within the organization, leading to managers trying to downgrade the potential power of peer units by pretending that the knowledge stock possessed by them is not valuable.

3.3.2 Successful managerial practices

Strategic rationale

The first necessary step to successful knowledge management is to treat it as an essential part when crafting the company's overall strategy (Hauschild, Licht and Stein; 2001). An appropriate management philosophy should be created with regard to knowledge transfer. This is necessary, because in order to develop commitment to knowledge transfer throughout the organisation,

employees must identify with the broader goals and objectives and must be able to accept and internalize key strategies (Baker and English, 2006). By reaching this, a higher degree of cognitive social capital is created, because all people in the organisation have the same view on knowledge transfer, its importance and objectives.

Management support

Senior management involvement in knowledge transfer is critical for at least three different reasons. Firstly, because they serve as a role model for managers down the line and employees (Rogers, 2007). Secondly, because people throughout the organisation will put less effort in knowledge management practices when senior management do not regard it as a substantial task. Thirdly, for the reason that leaders often possess a lot of knowledge important for the organization, as well as considerable experience to make sense out of a situation and see how to learn from it.

HR involvement

According to Afiouni (2007), HR involvement can significantly improve knowledge transfer within a company. Since people are the main asset in an acquisition to obtain intellectual capital, the human side of the acquisition need to be carefully taken care of. Tasks in this context for HR are: assistance in ensuring appropriate management philosophy, sound job designs, suitable recruitment and selection policies, effective training, high motivation and low individual stress, and fair rewards and development opportunities.

Transmission channels

Presently, transmission channels are often regarded as having a solely supportive role for knowledge transfer. Nevertheless, knowledge flows cannot occur without the existence of good infrastructure (Gupta and Govindarajan, 2000). Therefore, in order to enhance knowledge distribution, transmission channels are still of great importance. By linking the subsidiary better to the rest of the organization, transmission channels enhance intra-unit communication, which leads to better knowledge transfer. Transmission channels namely increase the development of structural social capital and by doing so knowledge transfer. Following a McKinsey (2001) study, transmission channels used by companies proficient in knowledge transfer, are: co-location of teams or departments, job rotation, use of intranet systems, regular training with experts, and cross-functional databases. Gupta and Govindarajan (2001) add liaison positions, inter-unit task forces, and permanent committees to this list. Moreover, Gooderham (2007) also includes global forums and face-to-face meetings.

Motivational mechanisms

A study by McKinsey (2001) shows that companies successful in knowledge transfer develop a knowledge pull environment by implementing motivational mechanisms. Almost all of the successful companies analyzed in this study set ambitious goals for product development and process innovation, while only 33% of the less successful companies did so for product development and only 27% for process innovation. These goals for product development and process innovation are created by setting world-class standards, offering extrinsic employee incentives, and encouraging participative decision making in those two areas. This same study furthermore revealed that other techniques used by successful companies include granting financial and other extrinsic incentives to reward employees who actively participate in knowledge transfer. More than 70 percent of the successful companies surveyed, for example, had individual incentive systems linked to knowledge transfer objectives. Furthermore this survey revealed that tying rewards to goals that employees can achieve but not influence on their own was often used by companies successful in knowledge transfer. Tying extrinsic incentives to goals that employees can influence but not achieve on their own, forces employees namely to seek and to offer knowledge more broadly. The preceding two findings are supported by Gooderham (2007) who argues that by rewarding -through tangible incentives- those types of behavioural outcomes that enhance knowledge sharing, an MNC underscores and objectifies the vision it is attempting to foster and sustain. Motivational mechanisms namely increase the degree of cognitive and relational social capital, which influences knowledge transfer. When effectively implemented, these motivational mechanisms help overcoming the internal barrier of motivational dispositions, because employees use all available resources to reach the goals (Hauschild, Licht and Stein, 2001).

Socialization mechanisms

As discussed before, social interaction is in current days regarded as the main feature to affect knowledge management outcome. Social interaction leads to the formation of trust und mutual understanding so that it helps overcoming internal barriers to knowledge transfer. Therefore, it can be said that the implementation of effective socialization mechanisms is most crucial to knowledge management success. A Mckinsey (2001) study found that socialization mechanisms applied by companies with lucrative knowledge transfer, while used significantly less by companies unsuccessful in knowledge transfer, are: personal communication across hierarchies, cross-functional teams, cooperation opportunities, synchronized goals across functions, and networking possibilities. Gupta and Govindarajan (2000) add job transfers to peer subsidiaries, participation in multi-subsidiary executive programs, job transfers to corporate headquarters, and participation in corporate

mentoring programs to this list. Furthermore, Lagerström and Andersson (2003) also stress the significance of transnational teams, and regular meetings and visits.

Common business culture

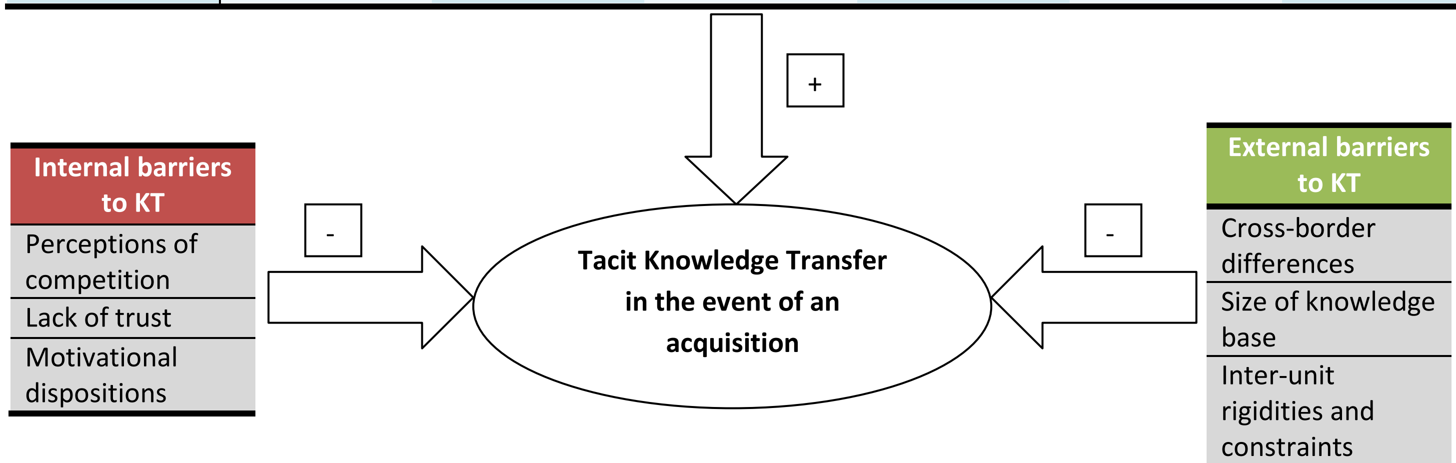
A common business culture improves the effect of transmission channels and socialization mechanisms as it increases cognitive social capital by enhancing mutual understanding and thus provides the foundation for communication. Aspects of the business culture that can carefully be managed and improve knowledge transfer within the organization, are the use of a common business language and codes, the creation of a shared vision, and the construction of a common company culture that promotes knowledge transfer (Baker and English, 2006).

3.4 Summarizing model

In this chapter features of knowledge transfer and management have been discussed. The extensive information of the last paragraphs concerning managerial practices augmenting tacit knowledge transfer together with the internal and external barriers that have a negative influence, are summarized in the model below.

Figure 1: Summarizing model on knowledge transfer, Source: the author

Managerial practices enhancing knowledge transfer						
Strategic rationale	KT as integral part of overall strategy	Management philosophy to KT				
Management support	Senior management involvement					
HR involvement	Assistance management philosophy	Recruitment and selection	Job designs	Training	Motivation	Rewards and development
Transmission channels	Co-location of teams or departments	Job rotation	Intranet systems	Training with experts	Cross-functional databases	Liaison positions
	Inter-unit task forces	Permanent committees	Global forums	Face-to-face meetings		
Motivational mechanisms	Setting world-class standards	Employee incentives for product development and process innovation	Participative decision making	Extrinsic incentives linked to KT	Tying rewards to goals that cannot be achieved individually	
Socialization mechanisms	Personal communica-tion across hierarchies	Cross-functional teams	Cooperation opportunities	Synchronized goals across functions	Network possibilities	Job transfers to peer subsidiaries
	Multi-subsidiary executive programs	Job transfers to corporate HQs	Corporate mentoring programs	Transnational teams	Regular meetings and visits	
Business culture	Common business language and codes	Shared vision	Common company culture promoting KT			



3.4.1 Explanation of summarizing model on knowledge transfer (figure 1)

The model above shows the information of this chapter in a combined manner. The information of paragraph 3.3.2 on successful managerial practices is summarized in the biggest block in the model named 'managerial practices enhancing knowledge transfer'. The arrow coming from this block has a plus sign next to it, because the practices summarized in this block have a positive effect on 'tacit knowledge transfer in the event of an acquisition' as discussed before.

Paragraph 3.3.2 on successful managerial practices distinguished seven areas of required management practices, namely: strategic rationale, management support, HR involvement, transmission channels, motivational mechanisms, socialization mechanisms and business culture. In the model these seven areas show in bold on the left hand side of the biggest block named 'managerial practices enhancing knowledge transfer'. In order to reach sufficient knowledge transfer, all these factors have to be carefully managed. Paragraph 3.3.2 discussed specific practices within every of these seven areas. These specific practices within any area are summarized to the right of the bold area name.

As mentioned before, socialization processes are regarded increasingly important. From the discussion in paragraph 3.3.2 can be seen that all seven areas of successful managerial practices either include socialization processes, or enhance the degree of social capital. Because tacit knowledge resides within individuals and is non-codifiable, employee involvement and participation in knowledge transfer is namely required.

The smaller block on the left hand side of the model in figure 1 summarizes the 'internal barriers to knowledge transfer' as discussed in paragraph 3.3.1. The arrow coming from this block has a minus sign, because these internal barriers have a negative influence on 'tacit knowledge transfer in the event of an acquisition' as discussed in paragraph 3.3.1.

The other small block on the right hand side of the model sums the 'external barriers to knowledge transfer' up, following the text of paragraph 3.2 (paragraphs 3.2.1 and 3.2.2 together). In this paragraph tacitness and absorptive capacity were also discussed as external barriers. However, as can be seen from that discussion, tacitness is regarded to have little or no influence in the context of this paper and absorptive capacity is also not regarded a major determinant. Therefore are they not part of the summarizing model. The arrow coming from this block has a minus sign as well, because these external barriers also have a negative influence on 'tacit knowledge transfer in the event of an acquisition' as was discussed in this paragraph.

3.4.2 Purpose of summarizing model on knowledge transfer (figure 1)

The summarizing model on knowledge transfer above serves two purposes in the context of this paper. It namely has the objective of directly supplying managers with a complete overview of managerial practices and negative influences. It also forms the base for the development of a model of required management practices necessary for obtaining the acquired company's intellectual capital further on in this thesis. Both purposes are explained in more detail below.

The model above provides managers involved in an acquisition to obtain the acquired company's intellectual capital with a quick though extensive summary of what practices should be carefully managed in relation to knowledge transfer. The model gives a clear overview of the seven areas of required management practices. It furthermore contains the specific practices that should be managed within every area. This helps managers involved in this type of situation to structure their work and not forget to take care of important issues. Moreover, the internal and external barriers that have a negative influence on tacit knowledge transfer in the event of an acquisition are summarized. This helps managers to better assess and manage risks.

As pointed out before, the aim of this thesis is to develop a model of required management practices necessary for obtaining the acquired company's intellectual capital. This is done based on a review of the extant empirical literature on both knowledge transfer as well as MNC acquisitions to obtain intellectual capital. The outcomes from the literature reviews on these two topics are then combined into one final model. The development of this final model becomes easier when the outcomes of the literature reviews on these two themes separately are already summarized in the same type of model. The summarizing figure on knowledge transfer above therefore forms the base for the final model that will be developed in this thesis. The literature review on MNC acquisitions to obtain intellectual capital will namely be summarized in similar figures. Afterwards, these figures will be combined into the final model of this thesis.

4 MNC acquisitions to obtain intellectual capital

4.1 General features of acquisitions to obtain intellectual capital

Growth through acquisition has been a critical part of the success of many companies operating in the new economy … The plain fact is that acquiring is much faster than building. And speed – speed to market, speed to positioning, speed to becoming a viable company – is absolutely essential in the new economy. *Alex Mandl, chairman and chief executive of Teligent, Harvard Business Review (2000)*

4.1.1 Defining M&A

As mentioned before, M&A is often used as an interchangeable term, which might be convenient but is inaccurate. Peng (2006) uses a rather detailed definition in which a merger is explained as 'the combination of assets, operations, and management of two firms to establish a new legal entity', and an acquisition as 'the transfer of control assets, operations, and management from one firm (target) to another (acquirer)'. It is important to make this plain distinction between mergers and acquisitions, as this paper solely deals with acquisitions. Complementary to this broad view is the narrow explanation used by McEvily, Eisenhardt and Prescott (2004) of the global acquisition of technological competencies that precisely explains what this paper is concerned with. They define acquisition in this specific context as 'the process by which firms develop new scientific and technological competencies, and renew old ones. This includes acquiring other organizations or collaborating with them to gain access to new technologies. It also encompasses the assimilation or absorption of technological knowledge from other organizations or public sources and the creation of technological competence through search, experimentation, and other learning processes'.

Four types of acquisitions can be recognized namely: horizontal, vertical, concentration, and conglomerate transactions. This paper mainly deals with concentration acquisitions, as the purpose is to obtain the acquired company's intellectual capital, like technology and knowledge.

4.1.2 Deal rationale and synergies

Many different deal rationales can be referred to, i.e. market penetration, cost savings, product expansion, obtaining IP/technology, etc. However, acquisitions are also subjective to 'hidden' motives that can harm the transaction, like managerial motives of self-interest (Peng, 2006; Devine, 2002). This paper is concerned with the success of acquisitions following the rationale of obtaining IP/technology.

When researching reasons behind acquisitions, synergies are often mentioned as the main motivation for the deal. The reasoning behind synergies is the 1+1=3 effect, where the outcome is greater than the sum of the individual components. Mark Sirower, vice president at Boston Consulting Group noted that, 'the easiest way to lose the acquisition game is by failing to define synergy in terms of real, measurable improvements in competitive advantage'. This quote shows the importance of expressing synergy benefits of an acquisition in measurable terms. Many synergies can be valued; however, it is not always possible to quantify strategic or organizational synergies, which is important in the context of this thesis. In such cases, an in-depth analysis at the level of the operating business processes is required to support a quantitative valuation.

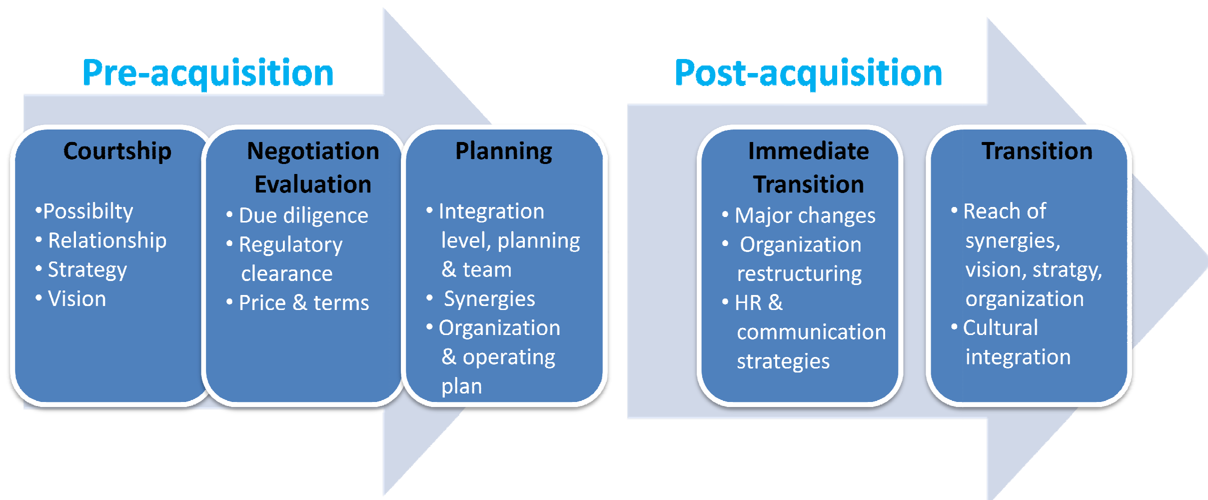
4.1.3 Outcome

Having a realistic view of the outcome of acquisitions is necessary in order to design effective practices. A lot of research has been conducted on this topic. However, the general view held by both researchers and practitioners these days is that acquisitions in most cases destroy value rather than enhance it. Greenberg and Guinan (2001) use as point of departure for their study that 'it has been estimated that as many as 70% of mergers and acquisitions fail to provide value for shareholders'. A study by KPMG, found that in 2002 for the first time shareholder value was increased more than it was decreased as a result of M&A deals. The study showed that 34% of M&As enhanced shareholder value, 32% reduced value and 34% had no effect. Clearly, there are winners and losers in the takeover game. Most research confirms that, in general, target firm shareholders are winners.

A study conducted by KPMG (2007) looked at the returns based on varying deal rationales and discovered substantial differences. The two figures in Appendices 1 and 2 summarize the findings of stock price increase based on deal rationale, after respectively 12 and 24 months. When the deal rational is acquiring IP/Technology, stock price increase is -5.5% after 12 months and +1.7% after 24 months. These results are very low compared to transactions based on other types of deal rationale. Two reasons may explain these negative findings for acquiring IP/Technology. Firstly, the high and debatably unjustified multiples that are often paid for companies with unique intellectual property. Secondly, the fact that deals motivated by for example financial strength and cost cutting have in general identified specific areas of synergies and cost reduction that may be implemented relatively easily compared to structures to transfer intellectual property. As stated by Devine (2002): 'Efforts to tap into the intellectual capabilities of combining organizations have been hampered by a tendency to see people as objects that can be moved around the organization at will'.

4.1.4 Stages of the acquisition process

Figure 2: Stages of the acquisition process, Source: the author



In order to be able to develop a framework of management practices that helps achieving successful knowledge transfer in an acquisition, it is important to lay out the different stages of the acquisition process. The clearest distinction can be made between the pre-acquisition and post-acquisition phase.

Within the pre-acquisition phase, three different stages can be distinguished, namely:

1. **The courtship phase** in which the possibility of an acquisition is discussed and business relationships are built.
2. **The evaluation/negotiation phase** that is characterized by formal means of negotiation and research of the target company. Due diligence plays an important role in this phase.
3. **The planning phase** including integration planning and the determination of synergies.

After finalizing the pre-acquisition stage, the deal is closed and the post-acquisition stage is entered. This stage is characterized by the following phases:

1. **Immediate transition phase** in which the major changes are carried out.
2. **Transition phase** where the focus is on ensuring that the synergies, vision, strategy and organizational changes are reached.

4.2 External influences on multinational acquisitions

Multinational acquisitions to obtain the acquired firm's intellectual capital are subject to several external factors that are discussed below. For the purpose of this paper it is assumed that the price paid for the acquisition is right, as it is concerned with people's issues and management practices rather than financial valuation of the target company.

4.2.1 Cross-border differences

Cross-border acquisitions are on the order of the day for MNCs. It is commonly believed that such deals lead to higher failure rates, because of the apparent cross-border differences. One of these differences is culture. When digging into the people's issues of acquisitions, culture is a very important concept. As Prof. Hofstede states: 'Culture is more often a source of conflict than of synergy. Culture differences are a nuisance at best and often a disaster.' Differences in national and corporate culture can thus pose tremendous strains on acquisition success. National culture relates to a society and plays an important role in cross-border deals. Dissimilarities in national culture are often straightforward, although differences in corporate culture play at least an as important role.

Morosini (2004) found that 'the higher the national cultural distance between the acquirer and the target company, the better the performance results'. Research by KPMG (2007) had a similar outcome, namely that it was not statistically significant that deals are more successful when the acquirer and the target are in the same country or region. An explanation for these findings could be that cross-border acquirers are better aware of the culture differences and therefore pay more attention to them. In line with this reasoning, the outcome of a survey by PA consulting Group (2003) was that companies who felt they were integrating dissimilar cultures did better (+2.7%) than those that felt were integrating similar cultures. Though differences in national culture may not by definition lead to lesser deal success, the integration of such cases stays a major obstacle. Cultural and sometimes language barriers namely create additional uncertainty.

In cross border deals, melding country cultures is not the only extra obstacle to success. Mistakes that can arise in any acquisition, like lack of internal controls over budgeting, and weak understanding of the fundamentals of the acquired business, then become even more troublesome. The reason is that communicating across long distances, misunderstandings arising from different business norms, and fundamental differences in management style are continuously present (Finkelstein, 1999). This leads to the fact that on top of the existing difficulties of acquisitions, a completely new set of problems is added. Next to culture these differences involve corporate

governance, the way that business is conducted, the power and rank of employees, regulatory environments, and customer expectations. When knowledge transfer determines acquisition success, Gooderham (2007) furthermore points out that in the external environment the degree of spatial distance, the degree of cultural distance, and the degree of economic/educational distance have a substantial impact. This was explained in more depth in the third chapter on knowledge transfer.

Fortunately, there are some principles that make cross-border acquisitions work more smoothly. They can be divided into the imperatives of strategic logic and acquisition integration (Finkelstein, 1999) and are discussed in the paragraph on required management initiated practices.

4.2.2 Other external factors

Size of acquirer

Research by KPMG (2007) reveals that the size of the acquirer influences deal success. The outcome they reach is that deals completed by smaller acquirers yield an 8.1% higher normalized return after two years than deals closed by larger acquirers.

Experience

It would be logical to assume that experienced acquirers reach better outcomes than inexperienced acquirers. However, Rovit and Lemire (2003) find that frequent acquirers are only 1.7 times more successful than infrequent buyers. In addition to this, Hayward's (2002) research states that just acquisition experience is not enough to generate superior performance, but that the best results come from organizations who take some time to process the lessons learned.

Way of financing

According to the KPMG report (2007), acquisition success varies depending on the way the deal is financed. Their finding was that cash deals compared to stock deals are significantly more successful with a 23.9% difference.

4.3 Practices needed for successful acquisitions to obtain intellectual capital

As pointed out by KPMG's (2007) research, it is challenging to obtain satisfying results when a company is acquired for its IP/Technology. Nonetheless, there are companies, for example Cisco, that have achieved dominant market positions through acquisitions with this rationale, and that have been able to keep failure rates very low (Mayer and Kenney, 2004). Below, the management initiated practices that enhance multinational acquisition success with this rationale are discussed.

4.3.1 Areas of management initiated practices

Different factors need to be managed thoroughly in a multinational acquisition in order to make the deal successful, when the aim is to obtain the acquired company's intellectual capital. In this paper seven areas are distinguished. At first, it is emphasized by many that getting the strategic rationale right is crucial for acquisition success (c.f. Critchlow, Gadiesh, Ormiston, and Rovit, 2002; Perry and Herd, 2004; Gadiesh and Ormiston, 2002). Next, detailed planning enhances achieving the results hoped for. Research by PA Consulting Group (2003) confirms this by stating that companies who used a detailed planning process achieved returns of 4.5% higher over companies with low levels of planning. Acquisition leadership also plays a distinctive role. A survey conducted by Andersen clearly pointed to the quality of leadership as the biggest potential barrier to successful integration.

Early HR involvement forms the next factor. Human resources difficulties can add considerable costs to the integration process and hamper the achievement of synergies (Blake and Mouton, 1985; Haunschild, Moreland and Murrell, 1994; Weber, Shenkar and Raveh, 1996). Foremost in acquisitions where tacit knowledge is to be transferred, carefully managing the human side of the deal is a necessity. Speed in the post-merger integration phase is also essential to acquisition success (Critchlow, Gadiesh, Ormiston, and Rovit, 2002; Morosini, 2004; Lynch and Lind, 2002). The sixth factor that can be distinguished is the implementation of sufficient integration mechanisms. Failure to integrate technology because of a 'not invented here mentality', as well as other signs of poor integration were found as a common barrier to acquisition success in research by Andersen. Lastly, overcoming culture clashes is a factor that needs to be managed sufficiently. Mainly, but not only, in cross-border acquisition deals this is an important aspect. According to Love and Gibson (1999), 'to an escalating degree culture clashes are drawing the heat for mergers and acquisitions that do not work out'. Research by Andersen also found that poor cultural integration was a main common barrier to acquisition success.

4.3.2 Lucrative practices in the pre-acquisition phase

In paragraph 4.1.4, an acquisition was divided in five phases. However, these overlap each other in certain ways. Therefore, in the rest of this paper, the simpler division of just the pre- and post-acquisition phase is used. For both these phases the applicable management initiated practices in terms of strategic rationale, planning, leadership, HR involvement, speed, integration mechanisms, and overcoming culture clashes are laid out below.

Strategic rationale

Firstly, managers have to compose a clear and compelling business case with performance numbers that add up, in order for both companies to embark and mobilize key executives (Devine, 2002; Morosini, 2004). Then the leadership team has to be identified and needs to articulate the joint strategic vision that the acquisition will be build upon, including the long-term goal, the main obstacles, and the impact on each effected stakeholder (Critchlow, Gadiesh, Ormiston, and Rovit, 2002). Moreover, how the acquisition will impact both company cultures needs to be laid out together with the organizational structure that will be adopted (Harding and Rouse, 2007). This is extra important in cross-border deals. Next, strategic due diligence should be carried out. When assessing synergies in this phase, it is vital that they are explicitly and tangibly defined. The managers on the merger team must then strive to ensure that everyone understands the vision and commercial case for the line-up (Devine, 2002). Furthermore, the development of a tactical plan that achieves the synergies of the deal rationale while maintaining business continuity is needed.

Planning

Organization and operating plans have to be designed. The five main areas that should be covered in the planning phase are (PA Consulting Group, 2003): risk management, budgeting and cost control, implementation of change, forecasting/tracking benefits, and communications. In order to reach the required engagement of employees in cross-border deals, careful integration planning is a necessity.

Leadership

The leaders of the acquisition need to identify with the outcome on a personal and organizational level. As a leader it is important to be able to empathize with others, to balance attention to the task at hand with attention to people, make consistently fair decisions, communicate clearly, be sensitive to issues of morale and uncertainty, and provide continuity during the post-deal integration process (PricewaterhouseCoopers report, 2008). When knowledge transfer is the main objective, it is necessary that all stakeholders are positive towards the acquisition. Therefore significant time has to be allocated to create constructive relationships at business and personal level, and get the support of significant shareholders and other important stakeholders. This can be achieved through showing mutual respect, trust and openness and by demonstrating the values and behaviors desired in the combined company. The loss of independence for the acquired company can be a big obstacle and should therefore be carefully dealt with by emphasizing the advantages of benefiting from the experience and expertise of a global business. Since deal success is highly dependant on human capital, the due diligence analysis should be extended to the second tier of management, functional specialists and people with under-exploited skills (Devine, 2002). After announcing the intent-to-

acquire, the rest of the organization must be involved. To enhance employee involvement, leaders ought to show enthusiasm and invite questions and suggestions at every opportunity (Walker and Price, 2000). Since acquisitions form a big source of uncertainty, managers have to communicate how important employees are to the success of the combined company early on (Greenberg and Guinan, 2001). This is of great importance to retain the intellectual capital that drives the acquisition.

HR involvement

Early involvement of HR enhances acquisition success, even more so because the people of the target company and their knowledge are the main objective of the deal (c.f. Walker and Price, 2000; Devine, 2002). When part of the acquisition team, HR leaders should deal with communications and perceptions regarding the acquisition rationale. This is vital in cross-border acquisitions, as they create even more uncertainty. Furthermore, HR leaders must cope with the optimal way to make the payment to the owner/manager of the acquired company. It is best to use a 'lock-in' arrangement, to retain the previous management of the acquired company which enhances knowledge transfer (Devine, 2002). When HR leaders are involved early on in the process, they can assist in Human due diligence (Walker and Price, 2000). This is critical to reduce loss of talent after the deal's announcement, which would have a negative impact on knowledge transfer. The acquirer should identify key employees and target them for retention during due diligence as well as uncover capability gaps, and points of friction (Harding and Rouse, 2007). Involvement of HR in the acquisition process should lead to more advanced planning in the areas of retention, communication and cultural integration, necessary in cross-border deals as well as to enhance knowledge transfer.

Speed

From the planning phase onwards, speed is crucial as employees know about the intent-to-acquire which creates uncertainty within the two organizations involved. The quicker the organization can deal with employee concerns, the sooner the organization can focus employees on the future (Walker and Price, 2000).

Integration mechanisms

Human due diligence will enable integration decisions by determining the organizational structure, establishing a process for the new combined culture, filling the top jobs quickly, and deciding how to retain other key talent (Harding and Rouse, 2007). During the planning phase the level of integration needs to be determined. This level can be measured on a continuum from solely financial controls through the full integration of people (PA Consulting Group report, 2003). To enhance knowledge transfer a higher level than just financial integration should be achieved. However, to keep its

innovative ability, even more so in cross-border deals, the target company should be given a certain degree of cultural autonomy. To make a cross-border deal successful, extensive integration effort has to be made. Furthermore, to enhance knowledge transfer the integration team ought to consist of a considerable number of members drawn from both the acquiring and the target organization.

Overcoming culture clashes

Since acquisition success depends highly on collaboration, corporate culture, and national culture in cross-border deals, are crucial and should therefore be discussed early on. Cultural auditing ought to be a component of the due diligence process. Companies acquired for their knowledge and innovative ability should be given a certain degree of cultural autonomy.

4.3.3 Lucrative practices in the post-acquisition phase

Strategic rationale

When knowledge transfer plays a central role, employee involvement is of great importance. According to research by Bligh (2006) and to Greenberg and Guinan (2001), it is therefore crucial to clearly articulate the rationale for the acquisition, for employees of both firms to be able to make sense of the deal. In cross-border deals a solid strategic logic is even of bigger importance (Finkelstein, 1999). This ideology should provide a framework for how post-consolidation culture differences can be resolved. Furthermore, necessary communication efforts have to be made to ensure that existing business units fully utilize the knowledge and resources of the newly acquired business.

Planning

Consistent behavior is vital during the post-deal integration process. It is therefore essential to establish clear, tangible objectives that balance the short- and long-term need of the organization, and distinguish between pre-deal and post-deal goals. Similarly, key performance measures should be defined to assess employees' progress in meeting the organization's objectives (Devine, 2002).

Leadership

Research by Bligh (2006) confirmed that a successful post-acquisition leader must be able to explicitly recognize, understand, and utilize culture differences at every step of an acquisition, in order to elicit employee buy-in needed for knowledge transfer. The post-acquisition leader should furthermore be able to address the tense and emotional aspect of the acquisition, create drive for change beyond mere compliance, and serve as a role model. Communication plays a crucial role in acquisition success and should take place not only on group level, but also on one-to-one basis to

resolve personal concerns. In cross-border deals with the aim to obtain intellectual capital this is definitely necessary, as employee buy-in is required for deal success and uncertainty is big. Communication efforts should also focus on the positive impact of the deal on future prospects. Moreover, some of the confusion and complexity of cross-border mergers can be mitigated by ensuring that executives in an acquiring company learn about differences in accounting standards, labor laws, environmental regulations, and norms and regulations governing how business is conducted in the country of the acquired firm early in the process (Finkelstein, 1999).

HR involvement

Employee support is necessary to reach tacit knowledge transfer. A good starting point to discover employees' attitudes towards the acquisition is employee surveys. Furthermore HR activities to support a unified social community, such as team building events and integrated meetings including employees from both firms, will encourage knowledge sharing (Greenberg and Guinan, 2001).

Speed

Speed is essential for successful integration, foremost during the first 100 days of the post-merger phase. The integration process should therefore be actively managed while making careful tradeoffs between speed and thorough planning.

Integration mechanisms

It is probably not an exaggeration to assert that most cross-border deals run into difficulties because of failures in the integration process (Finkelstein, 1999). Clear communication to employees as well as other stakeholders, is crucial to enhance integration. Several communication channels, promoting two-way communication, should thus be used. In cross-border deals, extensive communication plays an even more important role, as the prospective melding of different cultures can easily compound the uncertainty and stress that employees experience. Furthermore, the use of integration mechanisms such as joint development teams, job rotations, and joint meetings will boost integration and lead to higher levels of knowledge transfer, as it augments relationship building across the old and new organizations (c.f. Greenberg and Guinan, 2001; Bligh, 2006).

Overcoming culture clashes

After the deal is announced, human due diligence should take place more openly and make use of cultural assessment tools like employee surveys and face-to-face interviews. It is then useful to let the managers from both companies jointly review this data and agree on the cultural elements for the new company (Harding and Rouse, 2007).

5 How to manage knowledge transfer effectively in the event of an acquisition

5.1 Aim of the chapter

As the chapters above expressed, both acquiring companies and transfer of knowledge are increasingly important for MNCs to be successful. However, the complicated nature of these two events specifically for MNCs was also articulated. Reaching mutual success in both is even harder, because of additional internal barriers that occur to knowledge transfer when an acquisition takes place. Nevertheless, many management practices have been pointed out that enhance knowledge transfer and acquisition success. Therefore, it is believed that when managed thoroughly, an acquisition to obtain intellectual capital can be successful. The next paragraph deals with the additional internal barriers that occur to knowledge transfer in the event of an acquisition. Next, the findings concerning MNC acquisitions to obtain intellectual capital are summarized in two models and discussed. The following part of this chapter discusses the outcomes of the literature research thus far. Based on the three summarizing models and the underlying discussion, a model of required management practices necessary for obtaining the acquired company's intellectual capital is then developed and discussed.

5.2 Additional internal barriers

When a company is acquired, additional barriers to knowledge transfer occur. In this paragraph the five most significant are discussed. Though lack of trust was already mentioned as an internal barrier to knowledge transfer, this obstacle is even more prominent in the event of an acquisition, foremost when it concerns a cross-border deal. Case studies conducted by Bresman, Birkinshaw and Nobel (1999) showed that in the early stages of an acquisition with the main aim of obtaining intellectual capital, lack of personal relationships between the acquirer and acquisition made it very difficult for either party to trust in the abilities of the other. Consequently, tacit knowledge transfer was not viable in this stage.

Resentment amongst employees can form an other obstacle, as it diminishes integration as well as the employees' motivation to engage in knowledge sharing, in line with motivational dispositions to knowledge transfer.

An article from the Financial Times about the intended acquisition of Yahoo by Microsoft clearly expresses the third obstacle, uncertainty. The article states that 'Yahoo insiders voiced concern over low morale, a lack of leadership and the possibility of paralysis in product development at the Silicon Valley company'. Furthermore the article echoed the concern that probably not many people at Yahoo or Microsoft were concentrating much on innovation at the time (Nuttall and Waters, 2008).

When an acquisition takes place, the uncertainty of the situation makes employees concentrate less on knowledge transfer. Furthermore, employees might leave the company and choose for a safer option, taking their knowledge with them. This uncertainty in the beginning and the integration process later on, often lead to disruption, the fourth additional barrier to knowledge transfer. Ahuja and Katila (2001) state that acquisition integration entails far-reaching disruption, which reduces the time and effort spent on knowledge transfer.

The final barrier is organizational and cultural dissimilarity. In an acquisition, the ease of integration is heavily contingent on the compatibility of cultural and organizational particularities, and organizational and cultural congruence play determining roles in the success of the combination (Leroy, 2002). As dissimilarities are often bigger than within an existing MNC and have a greater effect, they are regarded an additional barrier.

5.3 Summarizing models on MNC acquisitions to obtain intellectual capital

When recalling the summarizing model on knowledge transfer at the end of chapter 3, it can be said that it gave a quick though complete overview of the findings of that chapter. The model showed the required managerial practices discussed as well as the internal and external barriers to knowledge transfer pointed out. It was then argued in paragraph 3.4.2 that the model did not only serve the purpose of forming an overview to managers, but also formed the base for the development of the final model of this thesis. It was explained that to be able to develop this final model, the summarizing model on knowledge transfer would be combined with similar summarizing models on MNC acquisitions to obtain intellectual capital. Below, these summarizing models on MNC acquisitions to obtain intellectual capital can be found. As mentioned before, intellectual capital can only be obtained when tacit knowledge transfer takes place. Therefore, the arrows in the models below show the influence on 'tacit knowledge transfer in the event of an acquisition' just like the summarizing model at the end of chapter 3. Two separate models are included for the pre- and post-acquisition phase. The two paragraphs after the figures 3 and 4 then explain how the models are developed and what their purpose is.

Figure 3: Pre-acquisition factors to acquisition success to obtain intellectual capital

Source: the author

Managerial practices enhancing acquisition success to obtain intellectual capital						
Strategic rationale	Compose business case	Identify leadership team	Joint strategic vision	Impact on cultures	Decide on org. structure	Strategic due diligence
	Define synergies	Communicate vision	Develop tactical plan			
Planning	Organization plans	Risk management	Budgeting and cost control	Implementation of change	Forecasting benefits	Communications
Leadership	Identify with outcome	Right personality	Consult acquired managers	Construct relationships	Support share- & stakeholders	Mutual respect
	Create trust and openness	Show desired behaviour	Emphasize advantages	Involvement of rest of the organization	Show enthusiasm	Communicate importance of employees
HR involvement	Early involvement	Communications	Perceptions of rationale	Optimal way of payment	HR due diligence	Target key employees for retention
	Uncover capability gaps	Reveal points of friction	Communication planning	Integration planning	Recognize and reconcile cultural diff.	Identify key executives and talent
Speed	Employee concerns	Key decisions				
Integration mechanisms	Determine org. structure	Resolve conflicts	Fill top jobs quickly	Retain key talent	Integration programs	Level of integration
	Common business	Certain autonomy	Program office	Integration team	members from both org.	
Overcoming culture clashes	Cultural due diligence	Common culture	Certain cultural autonomy			

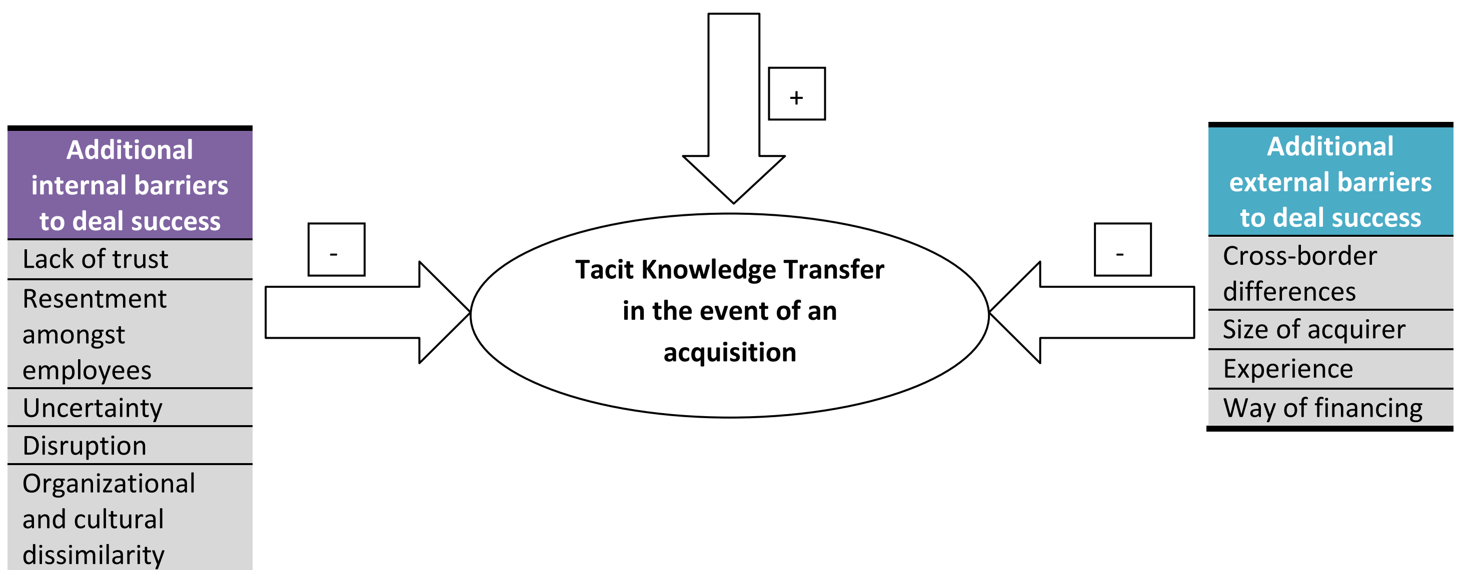
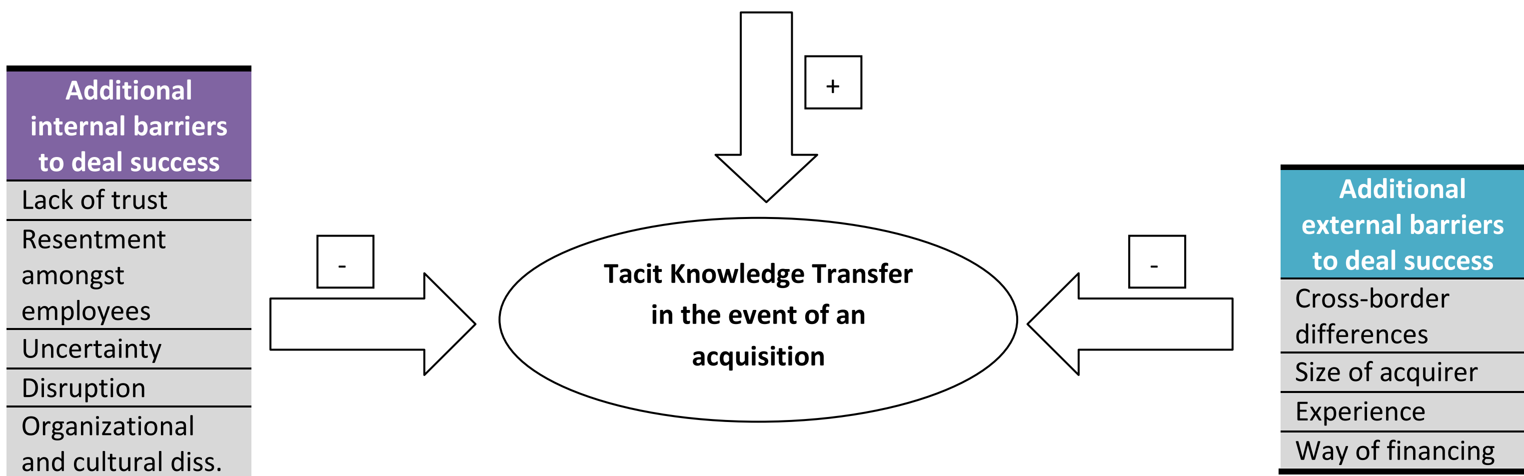


Figure 4: Post-acquisition factors to acquisition success to obtain intellectual capital

Source: the author

Managerial practices enhancing acquisition success to obtain intellectual capital						
Strategic rationale	Articulate deal rationale for employees of both firms	Framework for resolving post-consolidation culture differences	Communication efforts to ensure utilization of acquired knowledge and resources			
Planning	Establish clear, tangible objectives	Distinguish between pre- and post-deal goals	Define key performance measures			
Leadership	Recognize, understand, and utilize culture differences	Address tense and emotional aspects	Create drive for change	Serve as role model	Communication on group level and one-to-one basis	Able to mobilize leaders in the next layer down
HR involvement	Employee surveys	Unified social community				
Speed	Company should be operating as one company after 100 days	Active management of integration process	Tradeoffs between speed and thorough planning			
Integration mechanisms	Clear communication	Joint development teams	Job rotation	Joint meetings		
Overcoming culture clashes	Cultural assessment	Joint review of cultural assessment data	Agreement on cultural elements of new company			



5.3.1 Explanation of summarizing models on acquisition success to obtain intellectual capital (figures 3 and 4)

Similar to the summarizing model at the end of chapter 3, the two models above show the information of chapter 4 and paragraph 5.2 in a combined manner. Figure 3 summarizes the information in these chapters concerning the pre-acquisition phase and figure 4 does the same for the post-acquisition phase.

The information of paragraph 4.3 on practices needed for successful acquisitions to obtain intellectual capital is summarized in the biggest blocks in the two models above. This block is named 'managerial practices enhancing acquisition success to obtain intellectual capital' in both figure 3 and figure 4. The arrow coming from this block has a plus sign next to it in both models, because the practices summarized in this block have a positive effect on 'tacit knowledge transfer in the event of an acquisition' as discussed before.

Paragraph 4.3.1 on areas of management initiated practices, in the foregoing chapter, distinguished seven areas of required management practices in the event of an acquisition to obtain the acquired company's intellectual capital. These seven areas are: strategic rationale, planning, leadership, HR involvement, speed, integration mechanisms and overcoming culture clashes. In the two models above these seven areas show in bold on the left hand side of the biggest blocks named 'managerial practices enhancing acquisition success to obtain intellectual capital'. In order to reach acquisition success for this type of deals all these factors have to be carefully managed. Paragraphs 4.3.2 and 4.3.3 discussed specific practices within every of these seven areas for the pre- and post-acquisition phase. These specific practices within any area are summarized to the right of the bold area name for these two phases separately.

The seven areas of management initiated practices for acquisition success have many similarities with those enhancing knowledge transfer, but also some differences. The similarities can be explained by the fact that deal success is highly dependent on employee involvement and successful knowledge management. This is the case, because only when this happens the intellectual capital of the acquired company can be transferred to the overall organization and the deal can be called a success. The differences are also apparent, because managing the one-time process of an acquisition namely differs from managing knowledge transfer in an existing MNC. It can be seen from the discussion in chapter 4 and paragraph 5.2 in this chapter that just like in the summarizing model of chapter 3, socialization factors and practices that increase the degree of social capital have the majority.

The smaller block on the left hand side of both the figures 3 and 4 summarizes the ‘additional internal barriers to deal success’ as discussed in paragraph 5.2. These are the same in the two models above, because these additional barriers are present throughout the entire acquisition deal. The arrow coming from this block has a minus sign, because these internal barriers have a negative influence on ‘tacit knowledge transfer in the event of an acquisition’ as discussed in paragraph 5.2. As was pointed out in the discussion of paragraph 5.2, these additional internal barriers to deal success are foremost factors that already form a barrier to knowledge transfer in an existing MNC, but play an even more prominent role when an acquisition is the case.

The other smaller block on the right hand side of the two models above sums the ‘additional external barriers to deal success’ up, following the text of paragraph 4.2 (paragraphs 4.2.1 and 4.2.2 together). These are also the same in the two models above, because these additional barriers are present throughout the entire acquisition deal. The arrow coming from this block has a minus sign as well, because these external barriers also have a negative influence on ‘tacit knowledge transfer in the event of an acquisition’ as was discussed in paragraph 4.2. The size of the acquirer and experience are factors that in most cases just can be taken into account when an acquisition decision is made, because these factors cannot be managed as such. However, cross-border differences that occur in international acquisitions and the way of financing have to be managed thoroughly.

5.3.2 Purpose of summarizing models on acquisition success to obtain intellectual capital (figures 3 and 4)

The summarizing models on acquisition success to obtain intellectual capital above serve the same two purposes as the summarizing model at the end of chapter 3. They namely have the objective of directly supplying managers with a complete overview of managerial practices and negative influences. Furthermore, they form the base for the development of a model of required management practices necessary for obtaining the acquired company’s intellectual capital further on in this thesis. Both purposes are explained in more detail below.

The models above provide managers involved in an acquisition to obtain the acquired company’s intellectual capital with a quick though extensive summary of what practices should be carefully managed in relation to the acquisition. The models give a clear overview of the seven areas of required management practices that are important for this type of acquisition deal. It furthermore contains the specific practices that should be managed within every area for the pre- and post-acquisition phase. This helps managers involved in such a situation to structure their work and not forget to take care of important issues. Moreover, the internal and external barriers that have a

negative influence on tacit knowledge transfer in the event of an acquisition are summarized. This helps managers to better assess and manage risks.

These two models also help reaching the aim of this thesis, which is developing a model of required management practices necessary for obtaining the acquired company's intellectual capital. Because the two models above have the same set-up as the summarizing model on knowledge transfer at the end of chapter 3, they can relatively easy be combined into one final model.

5.4 Discussion

Only when tacit knowledge transfer takes place, intellectual capital from the acquisition can be transferred to the acquirer. Therefore, the degree of tacit knowledge transfer determines the degree of success of the type of acquisition deal focused on in this thesis. It has been discussed that tacit knowledge resides within individuals and is non-codifiable, acquired through experience, personal and subjective. As pointed out before, this means that employee retention, involvement and participation must be achieved throughout the acquisition. Without this, the intellectual capital that forms the reason for the deal namely goes lost. To enhance this employee retention, involvement and participation, practices have to be established that are targeted to the human side of the acquisition and enhance the degree of social capital within the company. These practices were discussed in the chapters 3 and 4 of this thesis. The concept of social capital, as discussed in more detail in chapter 3, identifies the determinants of the internal environment of MNCs that increase the efficiency of knowledge transfer by encouraging cooperative behavior. Furthermore it could be seen that socialization mechanisms are of great importance in order to overcome internal barriers to knowledge transfer as well as the additional barriers that occur when an acquisition takes place. These internal barriers were discussed for knowledge transfer in paragraph 3.3.1 and the additional barriers that occur during an acquisition were discussed in paragraph 5.2. When taken together, all internal barriers are: lack of trust, resentment amongst employees and organizational, uncertainty, disruption and cultural dissimilarity.

The summarizing model at the end of chapter 3 was concerned with knowledge transfer in general. The required managerial practices were divided into seven areas in this chapter that show in bold on the left hand side of the biggest block in the model named 'managerial practices enhancing knowledge transfer'. These seven areas of required management practices for successful knowledge transfer are: strategic rationale, management support, HR involvement, transmission channels, motivational mechanisms, socialization mechanisms and business culture. The specific management

practices within all these areas either are socialization mechanisms or increase the degree of social capital. This was discussed in text of paragraph 3.3.2. Below an overview is given of the ways in which these seven identified areas enhance tacit knowledge transfer.

Strategic rationale relates to knowledge management forming an integral part of the company's overall strategy. This leads to a higher degree of cognitive social capital, because all people in the organisation have the same view on knowledge transfer, its importance and objectives. **Managerial support** also enhances cognitive social capital, as it influences that everyone in the company understands the importance of knowledge transfer and deals with it in the same way. Furthermore it increases participation, as it leads to all managers playing a part in knowledge transfer. **HR involvement** guides better management and planning of the human side of knowledge transfer. **Transmission channels** increase structural social capital and by doing so help increasing the degree of cognitive and relational social capital. **Motivational mechanisms** augment the level of importance of knowledge transfer in the agenda of the employees. **The socialization mechanisms** discussed increase communication and social interaction, leading to a higher degree of social capital. Lastly, a **common business culture** improves the effect of transmission channels and socialization mechanisms as it increases cognitive social capital by enhancing mutual understanding. By doing so it provides the foundation for communication.

In an existing MNC managing the seven areas of knowledge transfer discussed above suffices. However, when an acquisition takes place, as mentioned before, additional barriers to knowledge transfer occur and should thus also be managed. Therefore, chapter 4 identified seven additional areas of management practices that have to be managed in an acquisition to obtain the acquired company's intellectual capital. These seven additional areas are: strategic rationale, planning, leadership, HR involvement, speed, integration mechanisms and overcoming culture clashes. These different areas that play a role in the case of an acquisition are now discussed.

Strategic rationale should in the event of an acquisition also include an appealing deal rationale, a joint strategic vision, and how will be dealt with organizational and culture differences. This is important to reduce uncertainty and resistance to the deal. When everyone understands the logic behind the acquisition and the importance of knowledge transfer, the degree of cognitive social capital increases and intellectual capital transfer becomes better feasible.

Planning was not discussed in relation to knowledge transfer, as knowledge transfer takes place on a continuous basis in an existing MNC. However, in an acquisition planning of objectives, change, and

communication are necessary in order to deal with the enormous transformation taking place. Only with a solid plan, the required practices can be implemented as needed.

Leadership of the acquisition process involves more than just management involvement as pointed out for the knowledge transfer process, though this stays important. Leadership in an acquisition namely also contains taking care of the entire acquisition. In order to lessen uncertainty and resistance, and deal with cross-border differences, the leader has to construct relationships, mutual respect, enthusiasm, trust and openness. In return this will lead to a higher degree of social capital as it enhances communication and participation, aspects of relational social capital as well as cognitive social capital, by creating a common ground for the deal.

HR involvement was already pointed out in relation to knowledge transfer. However, in the event of an acquisition it plays an even more prominent role. In order to reach intellectual capital transfer, employee retention is required. Without the employee's of the acquired firm staying, it is impossible to transfer the tacit knowledge they possess. Therefore, HR due diligence has to take place, and the HR function must carefully plan and manage the human side of the acquisition deal. Furthermore, they have the task to make sure there is enough communication to the employees as well as to make arrangements that enhance the creation of a unified social community. By taking care of these issues, HR increases the degree of structural social capital and plays an important role in decreasing uncertainty.

Speed did not play a role in knowledge transfer in an existing MNC, because knowledge transfer then takes place on a continuous basis. However, during an acquisition taking certain decisions quick as well as actively managing the integration process is required in order to decrease the level of uncertainty that forms a big barrier to knowledge transfer as fast as possible.

Integration mechanisms can be compared to the socialization mechanisms needed for knowledge transfer. In the event of an acquisition, socialization does not only need to take place to transfer intellectual capital, but in the first place to integrate the newly acquired organization in the existing one. This integration leads to a higher degree of cognitive and relational social capital, as it enhances the development of a common view by the acquired organization and the mother company, and increases communication and participation. The integration mechanisms that need to be implemented influence as such the degree of structural social capital.

Finally, **overcoming culture clashes** is important in an acquisition. This falls in the same area as 'common business culture' that was discussed in the part on management practices influencing knowledge transfer. However, in the event of an acquisition cross-border differences and differing organizational cultures can lead to culture clashes. These have to be managed actively before a common business culture can be established. Overcoming culture clashes and the establishment of a common business culture enhances the development of cognitive and thereby relational social capital.

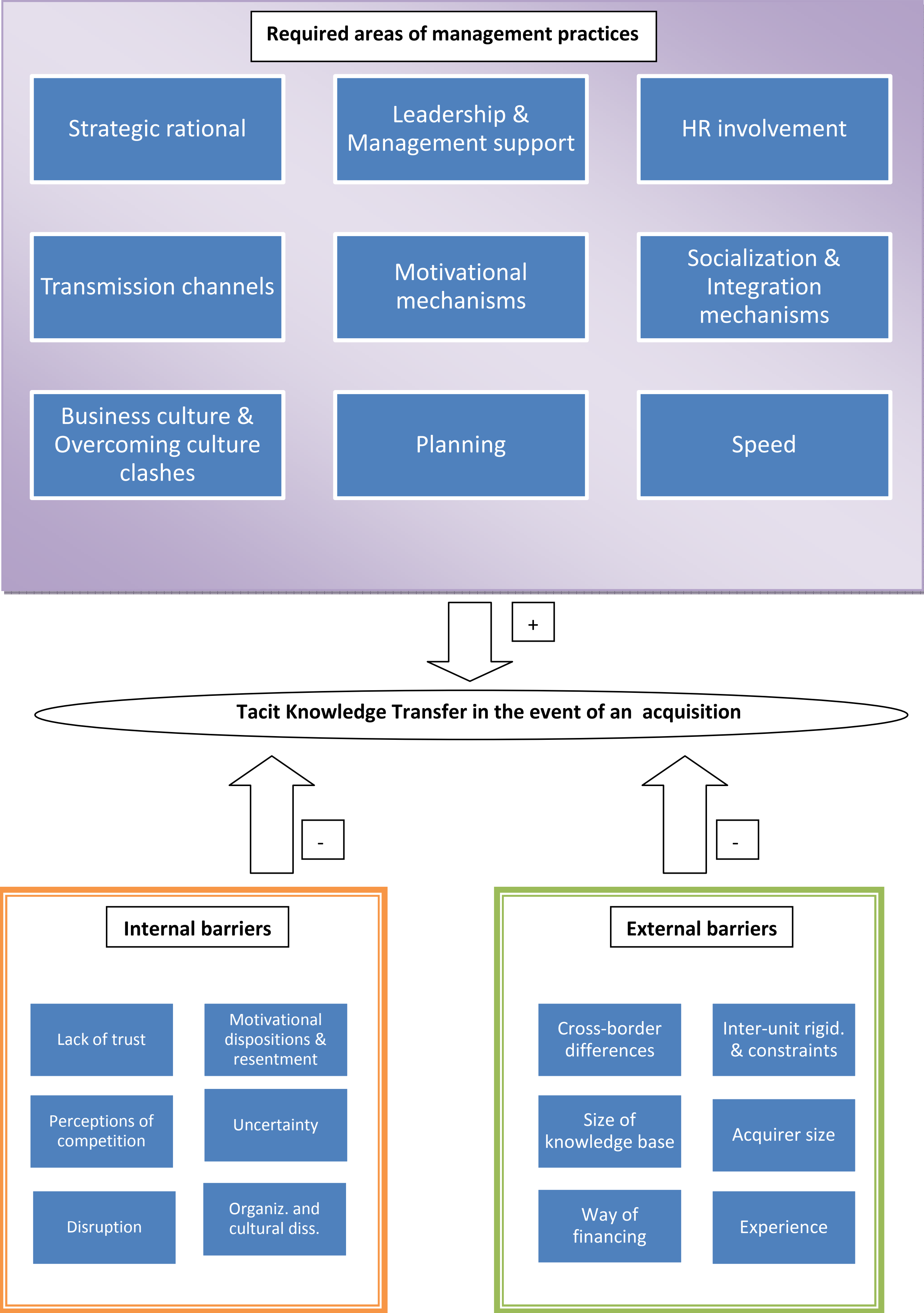
As the discussion above evidently shows, many practices are needed to enhance employee retention, establish the required degree of social capital, and overcome barriers like cross-border differences, lack of trust, uncertainty and disruption in the event of an acquisition to obtain intellectual capital. These factors have to be in place and managed accurately next to financial objectives, in order to reach a successful multinational acquisition to obtain the acquired company's intellectual capital.

The foregoing chapters identified required management practices for knowledge transfer and acquisition success separately. However, when an acquisition takes place to obtain the acquired company's intellectual capital all these areas of management practices have to be managed simultaneously in order to reach deal success. Therefore, in this paragraph a final model of required management practices necessary for obtaining the acquired company's intellectual capital is developed. This model is based on the three summarizing models before (figures 1, 3 and 4) and their underlying discussion.

5.5 Proposed model of management practices and negative influences

Obtaining technological know-how and developing technical capabilities are increasingly important motives for acquisitions (Ahuja and Katila, 2001). As pointed out in the foregoing chapters there are many internal and external barriers to both knowledge transfer and acquisition success. Furthermore, it was discussed that both events have a difficult nature though are very important for today's MNCs. This calls for a structure of clear management practices that enhance accomplishment. Below, the final model of this thesis on required management practices necessary for obtaining the acquired company's intellectual capital can be found. The paragraph following this model explains its development and content.

Figure 5: Model of required management practices and negative influences for obtaining the acquired company's intellectual capital, Source: the author



5.6 Development and content of proposed model of management practices and negative influences for obtaining the acquired company's intellectual capital (figure 5)

The final model on the foregoing page summarizes the findings of this thesis as they were described in the chapters 3 and 4, paragraph 5.2 and the discussion paragraph prior to the model. The final model is based on the three summarizing models in the figures 1, 3 and 4. The model in figure 1 namely shows the required management practices and internal and external barriers to knowledge transfer. The models in the figures 3 and 4 show the required management practices and additional internal and external barriers during an acquisition. However, as argued before, when an acquisition takes place to obtain the acquired company's intellectual capital all these areas of management practices have to be managed simultaneously in order to reach deal success. Therefore the model above combines the information of all three foregoing summarizing models.

5.6.1 Required areas of management practices

The biggest block in the model above is named 'required areas of management practices'. This block includes the combination of the areas of management practices that showed in bold on the left hand side of the biggest block in the summarizing models in figures 1, 3 and 4. This block named 'required areas of management practices' only shows nine areas of management practices that enable acquiring MNCs to successfully obtain intellectual capital from their acquisitions. However, for the two processes of managing knowledge transfer and managing an acquisition separately, two times seven areas of required management practices were distinguished. These two times seven areas can be found in the three summarizing models and were also discussed in the discussion paragraph prior to the final model. Although 14 areas of management initiated practices were found, the overlaps led to a combined total of nine. This is why the final model above only shows nine areas. These overlaps and how was arrived at the final nine areas of required management practices is now discussed.

To recall, for knowledge transfer the seven areas of required management practices identified are: strategic rationale, management support, HR involvement, transmission channels, motivational mechanisms, socialization mechanisms and business culture. For acquisition success the seven areas of required management practices identified are: strategic rationale, planning, leadership, HR involvement, speed, integration mechanisms and overcoming culture clashes. As argued before, the creation of social capital and the presence of socialization/integration mechanisms play a dominant role in enhancing success for the both events of knowledge transfer and acquisition success to obtain intellectual capital. Therefore similar required management areas were present within the both events. However, with a differing specific content.

The area **'strategic rationale'** is the first one to form an overlap. 'Strategic rationale' was namely a required area of management practices both for knowledge transfer to take place successfully as for acquisition success. Therefore this area only shows one time in the final model.

The required management area 'management support' for knowledge transfer is taken together with the area called 'leadership' for acquisition success. This decision is made, because many of the practices within these two areas overlap. These two areas are then called **'leadership & management support'** in the final model.

'HR involvement' also formed an area of required management practices within the both events. Therefore this area only shows ones in the model above.

The required management area called 'socialization mechanisms' for knowledge transfer is in the model of figure 5 combined with the area 'integration mechanisms' required for acquisition success. This is done, because many of the practices within these two separate areas overlap with each other. The combined area is then called **'socialization & integration mechanisms'**.

Similarly, are the areas 'business culture' for knowledge transfer and 'overcoming culture clashes' for acquisition success put together, because of the overlaps within these two areas. This forms the required management area **'business culture & overcoming culture clashes'** in the model above.

The areas of required management practices called **'transmission channels'** and **'motivational mechanisms'** are specifically needed for knowledge transfer. 'Transmission channels', because they increase the degree of structural social capital and therefore enhance relationship building and tacit knowledge transfer. 'Motivational mechanisms', as they enhance the degree of cognitive social capital by influencing how important knowledge transfer is in the employee's agenda.

'Planning' and **'speed'** are required areas of management practices necessary specifically in the event of an acquisition. This is the case, because it is a one-time process that needs to be planned thoroughly and managed quickly in order to reduce disruption and uncertainty.

The preceding text shows how is arrived at nine areas of required management practices in the final model, based on the three summarizing models earlier on in this thesis and the underlying discussion. The nine identified areas of required management practices necessary for obtaining the acquired company's intellectual capital therefore are: strategic rationale, leadership & management

support, HR involvement, socialization & integration mechanisms, business culture & overcoming culture clashes, transmission channels, motivational mechanisms, planning, and speed. The arrow coming from this block has a plus sign next to it, because the areas of management practices in this block have a positive effect on 'tacit knowledge transfer in the event of an acquisition' as discussed before.

5.6.2 Internal barriers

The smaller block on the left hand side of figure 5 summarizes the 'internal barriers' to obtaining the acquired company's intellectual capital. These internal barriers are a combination of the internal barriers to knowledge transfer of figure 1 and the additional barriers to acquisition success in the figures 3 and 4. To recall, the internal barriers identified in the model of figure 1 are: perceptions of competition, lack of trust and motivational dispositions. The additional internal barriers identified in the event of an acquisition in the models of figures 3 and 4 are: lack of trust, resentment among employees, uncertainty, disruption and organizational and cultural dissimilarities.

It can be seen that '**lack of trust'** is an internal barrier to both knowledge transfer and acquisition success. Therefore, this barrier only shows ones in the combined model. Furthermore, it can be argued that the internal barrier 'motivational dispositions' to knowledge transfer means the same as the additional internal barrier to acquisition success called 'resentment among employees'. Therefore, these two barriers are combined into one internal barrier called **'motivational dispositions & resentment'** in the final model. Though the other barriers revealed may not influence the two processes when carried out separately, they definitely negatively influence knowledge transfer in the occasion of an acquisition. **'Uncertainty'**, **'disruption'**, **'perceptions of competition'**, and **'organizational and cultural dissimilarities'** namely lead to lesser trust, lower motivation and a lesser ability to share knowledge and thus to lesser success of the acquisition deal.

The text above shows how is arrived at six areas of internal barriers in the final model, based on the three summarizing models earlier on in this thesis and the underlying discussion. The six internal barriers identified thus are: lack of trust, motivational dispositions & resentment, uncertainty, disruption, perceptions of competition and organizational and cultural dissimilarities. The arrow coming from this block has a minus sign, because these internal barriers have a negative influence on 'tacit knowledge transfer in the event of an acquisition'.

5.6.3 External barriers

The other smaller block on the right hand side of the final model above summarizes the 'external barriers' to obtaining the acquired company's intellectual capital. These external barriers are also a combination of the external barriers to knowledge transfer in figure 1 and the additional external barriers to acquisition success in the models of figures 3 and 4. To call to mind, the external barriers identified in the model of figure 1 are: cross-border differences, size of knowledge base and inter-unit rigidities and constraints. The additional external barriers identified in the event of an acquisition in the models of figures 3 and 4 are: cross-border differences, size of acquirer, experience and way of financing.

It is clear that '**cross-border differences'** is an external barrier to both knowledge transfer as well as acquisition success. Therefore, this barrier only shows ones in the final model. Though the other external barriers revealed may not influence the two processes when carried out separately, they do have a negative influence on knowledge transfer in the occasion of an acquisition. Therefore, **'size of knowledge base'**, **'inter-unit rigidities'**, **'size of acquirer'**, **'experience'** and **'way of financing'** also show as external barriers in the final model. The arrow coming from this block has a minus sign as well, because these external barriers also have a negative influence on 'tacit knowledge transfer in the event of an acquisition'

Most external barriers are not the main focus of this paper because they are difficult to manage, like argued before. However, cross-border differences are of great importance as multinational acquisitions often include cross-border deals. Furthermore this external barrier can be managed by defining the right amount of cultural and organizational integration, by the implementation of socialization and integration mechanisms, by leadership that realizes the impact of the acquisition, and by overcoming culture clashes and establishing a common business culture. Next to cross-border differences, the way of financing can also be influenced during an acquisition and can play a major role in deal success. The other external barriers should be considered when deciding if an acquisition is worth it or not to go on with.

6 Case study: Cisco, successful acquirer to obtain intellectual capital

6.1 Aim of the chapter

The aim of this thesis was twofold. Namely in the first place to develop -on the basis of a review of the extant empirical literature- a model of required management practices necessary for obtaining the acquired company's intellectual capital. This model has been developed in the foregoing chapter. The model identifies nine areas of required management practices as well as six internal and six external barriers to tacit knowledge transfer in the event of an acquisition. The second part of the aim of this thesis is concerned with illustrating the elements of this model by the case of Cisco that has a long standing track record of doing acquisitions to obtain the acquired company's intellectual capital successfully. This chapter deals with this second part of the aim. Paragraph 6.2 presents the case study on Cisco and its acquisition strategy. In paragraph 6.3 this case study is then analyzed in relation to the final model developed in chapter 5. All nine areas of required management practices of the model will be discussed in relation to the case study on Cisco. The same will be done for the internal and external barriers pointed out.

6.2 Case study

6.2.1 Background

Cisco was founded in 1984 by Leonard Bosack and Sandy Lerner, who invented a technology to link the separate computer systems at Stanford University, where they worked, together. Cisco went public in 1990 and now is one of America's great success stories. Today, the company's focus is on making switches, routers and advanced technologies that direct internet traffic, which respectively represented 42.3%, 23.5% and 27.4% of net product sales in fiscal 2007. The company was ranked 71st in the 2008 Fortune 1000 rank and 6th in the 'best company to work for in America' rank, consistent with its emphasis on people management. At this point in time, Cisco can report $34.9 billion in net sales and $7.3 billion net income for fiscal year 2007 compared to $18.9 billion in net sales and $3.6 billion net income in fiscal 2003, highlighting the enormous growth of the company. Cisco has over 32,000 US employees only and operates in more than 54 countries around the world.

Unlike some industries in which product life cycles are measured in years, in the computer network business the average product life cycle is estimated to be 6 to 18 months. Ongoing developments in products and technology therefore highlight the need for Cisco to be flexible in its strategy and

technology. Consequently, Cisco recognizes that if the company does not have the internal resources to develop a new product within six months, it must buy its way into the market or miss the window of opportunity. As a result, acquiring companies that offer attractive technologies, products, or market opportunities has been a major growth strategy for Cisco and since 1993 it has acquired over 120 companies. The rationale behind these deals has often been to gain the companies' knowledge and technology and by doing so rapidly offer new products.

Most of Cisco's acquisitions are small software companies, with 50 to 100 employees, that are about to launch commercial products. In terms of ownership, the great majority is private firms and most of these are closely held. By acquiring these companies, Cisco foremost is buying new product teams and intellectual capital, because assembling it internally from scratch would take too long. In terms of spatial proximity, Cisco concentrated its acquisitions initially in only a few locations. Most of them were located in Northern California, followed by Boston and Israel, places that also have a startup culture similar to that of Silicon Valley. This was done, because acquisitions to obtain intellectual capital are difficult to manage. As pointed out, acquisitions are often less successful than hoped for and technology acquisitions have an even higher failure rate. When knowledge is to be transferred right after the acquisition, the risk that the deal will end up in a disappointment is therefore rather high. Spatial proximity and cultural capability can play an important role and minimize some of the risks involved in this type of deals. In line with this, the percentage of Northern Californian acquisitions was highest in the early years when it might be hypothesized that Cisco was learning how to acquire (Mayer and Kenney, 2004). However, Cisco is, as describe in the first paragraph of this chapter, a truly multinational company as it operates in over 54 countries worldwide. Therefore, it could not stick to this localized approach. In illustration to this, it for example acquired the Italian company Pirelli optical systems in 1999, the Swedish company Qeyton Systems in 2000, and the Danish company Kiss technology in 2005. Moreover, Cisco's CFO and senior VP Denniss Powell said during his 2007 visit to India that "There is a very strong possibility that we might acquire companies in India in the area of emerging technologies".

Cisco is often described as a serial acquirer and is well known for its ability to successfully acquire new technology. Studies have shown that Cisco acquisition returns range from 10 percent to over 400 percent. It has more than any other high-tech firm in history built up its dominant market position to a large extent through these deals. Though the company of course has experienced failures, it has made more acquisitions than its competitors, has had fewer failures, and many successes. This accomplishment is especially remarkable as acquisitions in the IT industry have a long history of failure. Moreover, in theory, Cisco should have even more trouble as its acquisitions are

not just to acquire customers, branches or plants, but are specifically designed to acquire technology and know-how embodied in people, frequently including the founders of the acquired companies (O'Reilly and Pfeffer, 2000). Financial considerations alone cannot explain Cisco's success, as the prices paid for its acquisitions were comparable to the market. Exactly for these reasons Cisco forms an interesting case study in the context of this paper, as it is a company in the IT industry that has been able to pursue many successful acquisitions with the main aim of obtaining the acquired companies' intellectual capital.

6.2.2 Cisco's acquisition strategy

Cisco's approach to acquisitions began with the acknowledgement that most mergers and acquisitions are plagued with problems and do not provide the value hoped for. The company fully recognizes that their majority of deals mainly involve acquiring people. Therefore Cisco focuses first on these people and how to incorporate them into the overall company, and only then on how to drive the business. In the average acquisition, 40 to 80 percent of the top management and key engineers have left in two years, and by Cisco's metrics this would mean a failure of the acquisition. This has led to an acquisition strategy in which ensuring that people stay, feel at home, and can use their knowledge to make contributions to the new company, play a central role. Only when retention is high and the acquired employees' way of working is preserved, it is possible to transfer the acquired company's knowledge to the overall company.

Early feasibility studies are conducted in order to decide whether a product is to be developed internally or that the technology is to be acquired. Though the point of departure for an acquisition decision is a need for technology, the recognition is never lost that the acquisition is not in the first place of technology but of people and their intellectual capital, and that all efforts must be made to retain this pool of talent if the acquisition is to be successful. Although 70 to 80 percent of Cisco's products are developed in-house, these are often created by engineers who started with smaller firms acquired by Cisco, underlining the importance of employee retention. To assure this, the company believes that the entire acquisition process must be characterized by honesty and trust, both before and after the acquisition has officially taken place. In acquisitions close to home this already takes time to develop and in the currently growing number of cross-border deals this is even more time consuming. It means that all people must be fully informed throughout the acquisition in order to avoid negative surprises and maximize retention (O'Reilly and Pfeffer, 2000). Furthermore, retention of the acquired company's executives is of great importance. In the first place, because they often have the best knowledge of the company and its products, and in the second place,

because it has a demonstration effect for management teams at later target firms by showing that there are opportunities for newly integrated managers.

A good reverse example from Cisco's side of the importance of employee retention for deal success was the acquisition of Monterey Networks Inc., an optical-routing startup in which Cisco already held a minority stake. The company was founded in 1997, and though it had considerable deficits and no real customers or products yet, Cisco paid about a half billion dollars in stock to buy the rest of the company in 1999. However, within days after the deal was closed, all three of Monterey Networks' founders left the company, taking with them millions of dollars gained from the sale. Eighteen months later, Cisco had to shut down the entire acquired business, sack the remaining employees, and take a $108 million write-off.

When internally is determined that an acquisition is the preferred way to obtain a missing technology, target specifications are identified and a list of candidates is drawn up. Moreover, the proper administrative location for the target firm is considered. At the same time, an executive sponsor is recruited to be responsible for assuring that the acquisition and subsequent integration process receives executive-level attention. This is vital, because, as many studies show, after the deal is completed the acquiring management team shifts attention to other issues leaving the newly acquired firm struggling (Mayer and Kenney, 2004).

In order for Cisco to close an acquisition deal, the target candidate must have the required great technology that can be turned into a definitive product within six months, must have a shared vision, and must be culturally compatible. The increasing numbers of cross-border acquisitions make cultural compatibility an even more prominent requirement. Cisco expands its geographic locations of acquisitions only gradually, which helps the company adapting to differences in national culture and developing ways to deal with these. However, even when there is a difference in national culture, compatibility of business culture in the sense that the acquisition company among others is aggressive, focused and entrepreneurial stays a substantial requirement. Lack of this fit, or a lack of honesty, results in a decision on Cisco's part to seek other candidates (O'Reilly and Pfeffer, 2000). Leaders from various business units are always actively involved in the courtship and negotiation phases of any acquisition, as Cisco believes that the acquired company must be accepted by the internal group for the deal to become successful. Beau Parnell, director of HR development and a key player in the integration of new acquisitions stressed in an interview that the importance of chemistry in determining the suitability of an acquisition cannot be overemphasized. In line with this, Cisco has made several decisions not to go ahead with an acquisition because of a lack of cultural fit.

To be able to actively manage the numerous acquisitions that Cisco undertakes, the company has since 1997 a full-time acquisition manager and since late 1998 a specific cross-functional business integration unit. This unit is composed of finance and HR personnel, supplemented by business unit leaders and technology specialists. By 2001, the HR team devoted to acquisitions had grown to 21 persons. Furthermore, Cisco has been able to over time develop standard principles, processes, and methods to help assimilate newly acquired companies rapidly, consistently, and with minor disruption. From the courtship phase on, the Cisco team continually screens the target against the following five principles throughout the acquisition process, (Mayer and Kenney, 2004; O'Reilly and Pfeffer, 2000):

1. The presence of a shared vision about where the industry is going and what role each company wants to play in it;
2. The likelihood of a short-term gain for the acquired company, Cisco, and the shareholders;
3. The existence of a long-term gain for all parties involved, being: shareholders, employees, customers, and business partners;
4. The right chemistry and cultural compatibility;
5. Reasonable geographic proximity.

Outstanding about these guidelines is that they rather focus on social and cultural issues instead of financial matters.

The fifth guideline, reasonable geographic proximity initially meant that all of Cisco's acquisitions took place in Northern California. Next, this was extended to the rest of the U.S. and then Israel, because here the similar startup culture to that of Silicon Valley can be found. However, Cisco has grown out to such an internationally spread company, that it now also acquires companies on other continents. As Denniss Powell's quote in the beginning of this chapter showed, the geographic locations of Cisco's acquisitions will probably become even more diversified in the future. The acquisition of the Swedish company Qeyton forms an example of such a cross-border acquisition. Qeyton was founded two years before its acquisition by a small group of seven people. At the time of the deal, Qeyton had around 50 employees. The integration of Qeyton into Cisco marked a new era in the company and transformed it from a fast-growing but small start-up to an integrated part of a global corporation. The acquisition was characterized by mutual interests. For Cisco this interest was obtaining access to a technology it wanted, and for Qeyton having better opportunities by getting access to the resources of a larger company. This political aspect of mutual interests is essential for Cisco in a cross-border deal, because the spatial distance and cultural and language differences already form additional barriers to deal success. Only when both parties really want to make the deal work, it can turn out to become a success. To enhance the success of this cross-border deal, Cisco

took a number of steps to rapidly integrate the Qeyton people in the Cisco organization culture and paid a lot of attention to the development of trust and honesty throughout the entire process (Bengtsson, Müllern, Söderholm and Wåhlin, 2007).

In terms of size, Cisco prefers to acquire companies that are much smaller than it is, because integration of such companies is considerably easier, better manageable, and disruption is less. When a deal is closed, it is always clearly expressed by Cisco that it was an acquisition and not a merger of equals.

During the evaluation/negotiation phase, thorough due diligence is conducted. This procedure begins with informal conversations between senior Cisco managers and the CEO and senior team of the target firm. This is typically followed by an exchange of documents on technology and human resources (O'Reilly and Pfeffer, 2000). During this process Cisco looks for openness and honesty, flexibility of the target firm's managers in the conversation, quality and character of interaction between Cisco and the target's management, as well as among the target's management, and how widely equity is shared within the company. Once a decision is made to continue negotiations, Cisco tells the employees upfront what they are going to do in order to create an environment of trust and enhance deal success.

Due diligence is conducted in different areas, one of them being HR due diligence. During this process management styles, goals and aspirations of its key employees, the organizational structure, cultural fit issues, and its ability to function as a part of a much larger firm are carefully scrutinized. In cross-border acquisitions cultural due diligence is conducted in more depth, so that Cisco can be relatively sure that it is possible to successfully integrate the acquisition into the existing company culture after the deal is closed. Retention of all personnel plays a key role in this HR screen, because the product development teams embody the knowledge capable of introducing next generation products. The importance and positive effect of this procedure is emphasized by Cisco's retention figures, that show a turnover rate for acquired personnel identical with that of the Cisco population as a whole, as well as that over 70% of acquired senior managers are still with the company.

HR negotiates directly with key individuals to understand their post-acquisition intentions. Often their employment terms are included in the purchase agreement. With regard to payment, the sharing of equity, and rewards, Cisco prefers 'golden handcuffs' that typically consist of two year non compete agreements with key executives and technical personnel and the provision of Cisco stock options that vest over time, as this is an effective way to retain people and ensure that the negative

experience from acquiring Monterey Networks Inc. is not repeated. These stock options are also distributed generously to other employees, with 40 percent of them being in the hands of individual employees without a managerial rank.

Once a deal is approved, the final details and legal matters are worked out. Because of the amount of honest communication that already has taken place in former phases, this can be done relatively fast. Nonetheless, in cross-border deals this phase often takes more time, because of differences in the legal system. Speed is important in this part of the deal in order to reach the required time to market and integrate the new company as fast as possible. After the entire deal is finalized, the focus shifts immediately to integration. To actively manage this phase of the acquisition, an integration team is established and training as well as the necessary transmission channels, such as access to the intranet, are provided. The integration teams are always composed of Cisco employees as well as members of the new unit to ensure the accomplishment of specific tasks, but also to begin the process of socialization and bonding, and by doing so invisibly transfer information about Cisco's culture. Cisco has subsidiaries in all countries they acquire in, so it is always possible to have face-to-face meetings and a mixed integration team, even for cross-border acquisitions. The integration team's proactive role plays an important role in the acquisition process, because they establish an integration plan upfront and create a sense of continuity in terms of communication to the acquired company as well as to the business unit, generating a sense of calm throughout a rather emotional process. The integration team holds weekly meetings and an acquisition integration website is established to discuss progress.

When the official announcement about the acquisition is made, other employees than the management involved in the closure of the deal, are informed about what the acquisition means to them. Immediately after the announcement, HR conducts communication meetings at the acquired firm until all employees have been provided with information on key issues such as reasons for the deal, the impact upon them, their role and location in Cisco, how their compensation and benefits will be affected, their new titles, etc. (Mayer and Kenney, 2004). In cross-border deals speed in this part of the process and face-to-face meetings are as important, because this minimizes disruption and uncertainty and creates an environment of trust required to make the acquisition successful. Therefore, HR plays a crucial and central role in the first 35-40 days. Moreover, the involvement of the acquired company's leaders to reassure their employees, as well as the prior and clear planning, help minimize uncertainty and speed up the process. By the end of 100 days after the merger is announced, every employee should have clarity about the process, which will decide his or her future. As Cisco now acquires larger companies further away from San Jose, integrations become

more complex and the time needed to complete them can get longer. Cisco's 1999 acquisition of the Pirelli business unit was one of the most challenging according to Merrifield, manager of Cisco's IT Acquisition Integration Team at the time of the deal, who already travelled several times to Milan before the deal was closed. This shows the importance Cisco places upon face-to-face contact in order to create the necessary relationship of honesty and trust. Besides the distance and language factors, Pirelli was, with 750 employees, a rather large business in Cisco's acquisition history to be integrated into its operations.

Since many of Cisco's employees are relatively new, the company has a culture of welcoming new members with little 'insiders versus outsiders' attitude, which augments integration. In this phase of the acquisition as well, honest and open communication play a central role. Therefore the necessary change is clearly addressed as well as the positive side of the acquisition for the employees, i.e. the strength of Cisco's sales and support functions that can speed up the adoption of the product the startup company has developed, and better monetary rewards and learning opportunities. John Chambers, president and chief executive of Cisco, believes that communication early, often, and honestly enhances trust and therefore integration success.

In a typical acquisition, the engineering, marketing, and sales units will be integrated into the sponsoring business unit, while human resources, service, manufacturing, and distribution are merged into the Cisco infrastructure (O'Reilly and Pfeffer, 2000). Cisco has namely learned from its experience that independence for among others the sales force improves employee retention. When the company acquired StrataCom, about a third of the acquired company's sales force left as a result of Cisco's trying to speed up the sales cycle. Cisco learned from this mistake and when integrating the Cerent sales force, Cisco chose to let it remain independent, keeping their own accounts, even if those were already visited by a salesperson. As a result, most Cerent personnel still work for Cisco (Nguyen and Kleiner, 2003). This integration takes place on both the structural and cultural level. Cultural integration includes the use of integration teams, the organization of orientation sessions so that employees can ask questions and get answers, and the assignment of buddies. However, Cisco gives its acquisitions a certain amount of freedom needed for them to stay engaged in the development of new products. In cross-border deals this degree of freedom is also necessary to stay part of the local environment. When the Italian company Pirelli was acquired for example, its CEO at the time of deal closure also led the company after the acquisition. This shows that companies are not forced into a totally different direction that could lead to more disruption and resistance than necessary. However, as was stated by the executive VP of Sage Research: 'Cisco has the uncanny ability not only to make targeted purchases, but also to integrate the company and technology well

into its products and into the company'. Cisco sets 30-, 60-, 90-, and 120-day milestones to assess progress and productivity, which are linked to incentives in order to motivate the acquired firm's employees to actively take part in the integration process. After the immediate transition phase is over, the integration team refines 6, 12, and 24 month initiatives, and finally the planned and actual results are measured and the reasons for discrepancies are investigated.

Cisco's company culture plays an important role in its success and the HR group ensures that it is aligned with the business strategy and continually reinforced. Cisco espouses five core values, namely: a dedication to customer success, innovation and learning, partnerships, teamwork, and doing more with less. These core values are actively backed up by John Chambers, Cisco's CEO. He for example reviews around 15 critical accounts each day stressing the importance of customers' satisfaction, and puts a constant pressure to make innovation and learning happen. Furthermore openness is the rule with people being encouraged to challenge the status quo and a 'not invented here' syndrome is not tolerated (O'Reilly and Pfeffer, 2000). To reach this alignment of the company culture with the business strategy, numerous mechanisms are used, such as quarterly 'all hands' meetings, communications through the company intranet, as well as through the way jobs are structured and managed. With the growing number of cross-border acquisitions, geographical distance can form an additional challenge to the implementation of these transmission channels. However, at Cisco the general belief is that distance is not the most important factor; building trust is regarded as such. Therefore, for people that will work together for an extended period of time, face-to-face communication is regarded critical, because that is where relationships can be built and social interaction takes place. Furthermore, Cisco's European HR division has developed a set of team operating principles for how the geographically dispersed group works with one another. These include for example clearly speaking and articulating, and using instant messaging if people do not feel comfortable interrupting the discussion. At the end of the acquisition process, the acquired firm should be entirely integrated, often with the same executive team and a somewhat altered culture.

6.3 Analysis of case study on Cisco in relation to the final model developed in chapter five

The case study on Cisco's acquisition process above clearly shows in line with the earlier findings of this thesis that employee retention, involvement and participation play a central role in acquisition success when the goal is obtaining the acquired firm's intellectual capital. Furthermore it can be seen that the presence and active management of integration and socialization mechanisms enhance their success for this type of deals as well as help overcoming the cross-border differences that play an increasingly important role within Cisco. This highlights the importance of the management of these

areas and the creation of social capital as pointed out in the foregoing chapter. The five principles that Cisco's targets are continually screened against underscore the focus on social and cultural issues rather than on just financial matters. These general conclusions are similar to the information in the final model developed in chapter five. Next in this paragraph, the lessons learned from the case study on Cisco are compared to this model and its underlying information presented in previous chapters.

First, the nine areas of required management practices that show in the model are one by one discussed in relation to the foregoing case study on Cisco. These nine areas, as discussed in paragraph 5.7.1, are: strategic rationale, leadership & management support, HR involvement, socialization & integration mechanisms, business culture & overcoming culture clashes, transmission channels, motivational mechanisms, planning and speed. Next, the same is done for the six internal and six external barriers pointed out in the model.

6.3.1 Required areas of management practices

With regard to **strategic rationale**, Cisco screens its target on the presence of a shared vision about where the industry is going and what role each company wants to play in it. For cross-border deals the presence of mutual interests is pointed out as essential, because the spatial distance and culture and language differences already form additional barriers to deal success. Furthermore the company regards acquisition as a business strategy rather than a one time event and in line with this appointed a full-time acquisition manager in 1998, underscoring its importance for the business. The same goes for knowledge transfer, as innovation and learning as well as teamwork are two of Cisco's five core values. These practices are in line with the discussion of chapter five in which was pointed out that knowledge transfer and the joint rationale behind the acquisition need to be part of the company's overall strategy. This namely increases the degree of cognitive social capital.

Leadership & management support also played an obvious role in the case study on Cisco**.** In terms of leadership Cisco espouses five core values that need to be backed up by all leaders of the company. Next to this, trust, openness, and honesty are regarded very important within Cisco and searched for in every leader and manager. This was also mentioned in the discussion of chapter five as being necessary in order to lessen uncertainty and resistance. In acquisitions close to home it already takes time to develop this trust, openness and honesty. In the currently growing number of cross-border deals developing this is even more time consuming, but at Cisco all time and effort needed is spent on the creation of it. In line with this, Cisco tells the employees upfront what they are going to do, in order to create an environment of trust and enhance deal success. Moreover, the

necessary change is clearly addressed as well as the positive side of the acquisition for the employees. Cisco manages its entire acquisition process actively. As shown in chapter five this enhances the creation of relational and cognitive social capital and thus deal success. Management support was recognized in the literature review as practice that enhances cognitive social capital and is required for successful knowledge transfer. This practice is provided for in Cisco's acquisition strategy in the way that every deal has an executive sponsor so that it obtains executive management support. Besides, leaders from various Cisco business units are always actively involved in the entire process from the beginning on. This means that extensive internal as well as external communication takes place enhancing the degree of social capital. Involvement of its leaders and management is also expected from the target company.

The value of **HR involvement** is greatly reinforced by the case study on Cisco, as HR plays an important role throughout the entire acquisition process. By 2001, the HR team devoted to acquisitions had grown to 21 persons. HR due diligence is regarded as vital and immediately after the announcement HR conducts communication meetings at the acquired firm until all employees have been provided with information on key issues.

In terms of **socialization and integration mechanisms**, intense efforts are made to socialize the acquired employees into the Cisco way of working. In the majority of their acquisitions, the acquired company can retain a certain degree of autonomy. A certain degree of freedom is namely needed to stay engaged in the development of new products and when it concerns a cross-border deal, to stay part of the local environment and minimize disruption. However, after the entire deal is finalized, the focus shifts immediately to integration. Trust and extensive internal and external communication play a key role in this and help create mutual understanding and thus enhance the creation of cognitive social capital. Furthermore, a cross-functional business unit is set up to manage acquisitions. Moreover, an integration team that is composed of both Cisco employees and employees from the acquired company is created for every acquisition, and buddies are assigned. Cisco has subsidiaries in all countries they acquire in, so it is always possible to have face-to-face meetings and a mixed integration team, even for cross-border acquisitions. The integration team's proactive role is essential for the acquisition process, because it establishes an integration plan upfront, and creates a sense of continuity in terms of communication to the acquired company as well as to the business unit, generating a sense of calm throughout a rather emotional process. The integration team holds weekly meetings and an acquisition integration website is established to discuss progress. These integration and socialization mechanisms lead also to a higher degree of relational social capital, as it increases communication and participation.

The management of **business culture & overcoming culture clashes** can also be found back in the case study. Culture clashes are overcome by Cisco through the emphasis that is placed upon cultural compatibility before any deal is closed, as well as through the significant time and effort spent on managing cultural integration. The increasing numbers of cross-border acquisitions make cultural compatibility an even more prominent requirement. Even when there is a difference in national culture, compatibility of business culture stays a substantial requirement. Cisco's business culture acknowledges the need for knowledge transfer, does not accept a 'not invented here' mentality, and welcomes new members with little 'insiders versus outsiders' attitude. This emphasis on a common business culture improves, as pointed out before, the effect of transmission channels and socialization mechanisms as it increases cognitive social capital.

Various **transmission channels** are used and implemented throughout Cisco's acquisition process, such as the provision of training for new employees, communications through the company intranet system, many face-to face meetings, quarterly 'all hands' meetings, and orientation sessions. With the growing number of cross-border acquisitions, geographical distance can form an additional challenge to the implementation of these transmission channels. However, at Cisco the general belief is that distance is not the most important factor; building trust is regarded as such. Therefore, for people that will work together for an extended period of time, face-to-face communication is regarded critical, because that is where relationships can be built and social interaction takes place. Furthermore, Cisco's European HR division has developed a set of team operating principles for how the geographically dispersed group works with one another. This is in line with chapter five in which was argued that transmission channels increase structural social capital and by doing so help increasing the degree of cognitive and relational social capital.

Motivational mechanisms are provided for by the 'golden handcuff' agreements that Cisco prefers to use to enhance employee retention. The 30-, 60-, 90-, and 120-day milestones to assess progress and productivity that are linked to incentives also function as motivational mechanisms. As explained, these motivational mechanisms can augment the level of importance of knowledge transfer in the agenda of the employees. The 'golden handcuff' agreements furthermore are a way to influence the external barrier of 'way of financing' as called for in the proposed model.

In terms of **planning**, Cisco has over time developed standard principles, processes, and methods. In addition the integration team establishes a thorough plan for every acquisition individually. Furthermore Cisco sets 30-, 60-, 90-, and 120-day milestones, and after the immediate transition phase is over, the integration team refines 6, 12, and 24 month initiatives.

After deal closure **speed** plays an important role in any Cisco acquisition, in order to reach the required time to market. Therefore, the company normally only acquires technology that can be turned into a definitive product within six months. Moreover, the integration process is managed actively and quickly, to reduce uncertainty as soon as possible and diminish disruption. Consequently, all employees should have clarity about the process within 100 days.

6.3.2 Internal barriers

The internal barriers to knowledge transfer mentioned in the final model are: lack of trust, motivational dispositions & resentment, perceptions of competitions, uncertainty, disruption, and organizational and cultural dissimilarities. As could be seen, honesty, trust, and openness play a major and central role throughout Cisco's entire acquisition process, reinforcing the statement in the proposed model. Cisco's value to minimize disruption as well as its emphasis on cultural compatibility are also in agreement with the model developed in chapter 5. The case study furthermore showed that Cisco recognizes the influence of uncertainty and manages this actively by thorough planning and extensive communication. Lastly, the motivational dispositions & resentment are taken care of by the 'golden handcuff' agreements and the milestones that are linked to incentives.

6.3.3 External barriers

Furthermore, external barriers to knowledge transfer and acquisition success were identified in the model at the end of chapter 5. These external barriers identified are: cross-border differences, inter-unit rigidities and constraints, size of knowledge base, size of the acquirer, way of financing, and experience. As this paper is mainly concerned with the required managerial practices rather than external influences, and the case study was built in order to uncover those at Cisco, there is not enough information in this case study to draw a conclusion on whether all these external barriers are supported by it or not. However, Cisco does pay attention to the way of financing by using the 'golden handcuff' agreements. Cross-border differences are also definitely recognized as a barrier to deal success. Therefore Cisco expands its geographic area of acquisitions gradually and has, as discussed, several additional practices to turn cross-border acquisitions into a success. Cisco furthermore recognizes that its experience has helped improving its acquisition strategy.

6.3.4 Concluding remarks

Above, the required management initiated practices used by Cisco are compared to the final model developed in chapter five. In conclusion it can be said that the nine areas of required management practices in the proposed model are fully supported by this case study. This finding confirms the importance of integration/socialization mechanisms, actively managing the human side of the deal

and the creation of social capital. Furthermore, the six internal barriers of the proposed model were held up when compared to the case study on Cisco. With regard to the external barriers identified, it should be said that the case study did not supply sufficient information in this area to draw a conclusion on all of them. However, Cisco definitely recognizes the need to manage the extra difficulties coming from cross-border differences. Furthermore, the way of financing and experience play a role for this company.

7 Conclusion

7.1 Main findings summarized

This paper started off with the formulation of the following research question:

What factors enable acquiring multinationals to successfully obtain intellectual capital from their acquisitions?

By answering this research question the aim of this thesis was to develop a model of required management practices necessary for obtaining the acquired company's intellectual capital. Afterwards, the elements of this model were illustrated by the case study on Cisco that has a long standing track record of doing this type of deals successfully.

The model developed summarizes the findings of this thesis. It shows the nine areas of management practices that enable acquiring MNCs to successfully obtain intellectual capital from their acquisitions. These nine areas were reinforced by the case study on Cisco and can be categorized as follows: strategic rationale, leadership & management support, HR involvement, transmission channels, motivational mechanisms, socialization & integration mechanisms, overcoming culture clashes & business culture, planning and speed.

Internal barriers to acquisition success with this rationale were also pointed out, because overcoming those is the focus of the areas of required management practices. These internal barriers are: lack of trust, motivational dispositions & resentment, perceptions of competition, uncertainty, disruption and organizational and cultural dissimilarities.

Most external barriers discussed are not the main focus of this paper, because they are difficult to manage. However, cross-border differences are of great importance as multinational acquisitions often include cross-border deals and these differences can be managed.

With regard to these findings it can be concluded that the active management of integration/socialization mechanisms and the development of social capital are requirements to success acquisition deals to obtain the acquired company's intellectual capital. Furthermore, actively managing the human side of the deal is necessary to create the required level of employee retention, involvement and participation.

7.2 Implications for practice

The findings of this thesis should be of interest to managers of MNCs involved in acquisitions to obtain the acquired company's intellectual capital. This paper has, based on a review of the extant empirical literature, developed a model of required management practices necessary for obtaining the acquired company's intellectual capital. This model gives managers a clear though extensive overview of what areas should be managed carefully and what internal and external barriers influence deal success. Furthermore three summarizing models were developed prior to the final model that in addition point out which specific practices should be taken care of within every area. This helps managers involved in such a situation to structure their work and not forget to take care of important issues. Moreover, the internal and external barriers that have a negative influence on tacit knowledge transfer in the event of an acquisition are pointed out. This helps managers to better assess and manage risks.

The outcome of this thesis shows that when obtaining the acquired company's intellectual capital is the main goals of the acquisition, integration/socialization mechanisms have to be actively managed and social capital should be developed. Furthermore, actively managing the human side of the deal is necessary to create the required level of employee retention, involvement and participation. Of course economic and financial considerations still play a role in any acquisition deal. However, when the goal is to obtain intellectual capital, the management of these considerations alone is not enough.

7.3 Limitations and extensions

This thesis is an empirical effort that has aimed to develop a model of required management practices necessary for obtaining an acquired company's intellectual capital. The elements of this model are illustrated by the case of Cisco that has a long standing track record of doing this successfully. Cisco is a very reliable subjective in the context of this thesis, because this MNC has successfully acquired a high number of companies with this aim. However, the case study is solely based on extant literature, which forms a limitation. Furthermore it is a limitation that the elements of the model developed in this thesis are only illustrated by and tested on one subjective. Possible extensions to this thesis are therefore the use of more different companies to test and illustrate the developed model. Moreover primary research in the form of surveys and interviews can supply important information with regard to the comprehensiveness of the developed model.

Throughout this thesis social capital has been used to explain the necessity of certain areas of management practices. However, the concept itself has not been developed extensively in the concept of this paper. The implications that the different areas of required management practices pointed out in the model have on the development of social capital, as well as the influences of social capital on acquisition success with the aim to obtain the acquired company's intellectual capital, therefore form possible new research avenues.

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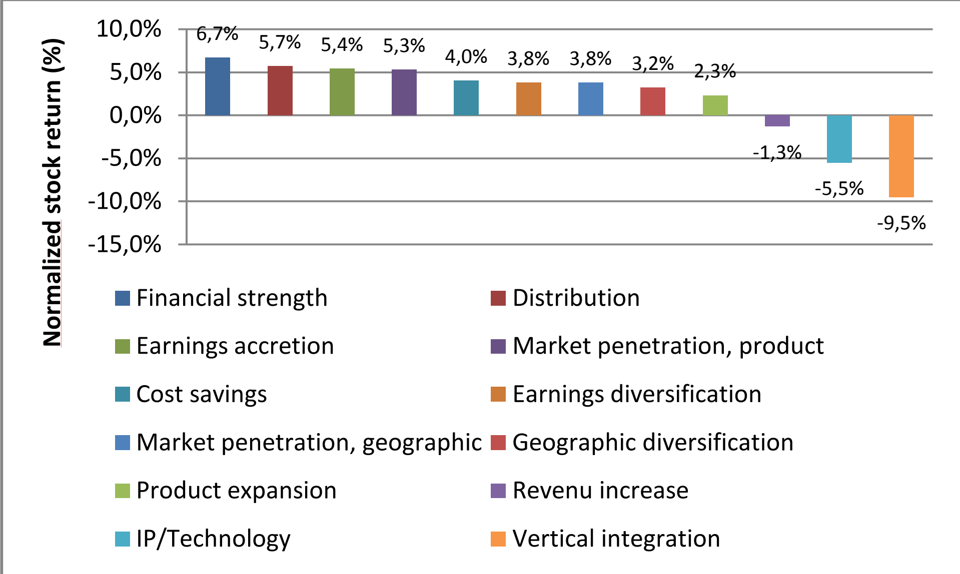
Appendices

Appendix 1: Stock price increase based on deal rationale after 12 months

Figure 6: Stock price increase based on deal rationale after 12 months, Source: KPMG research



Appendix 2: Stock price increase based on deal rationale after 24 months

Figure 7: Stock price increase based on deal rationale after 24 months, Source: KPMG research