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**Knowledge Transfer In Multinational Corporations And
Its Performance Implications: The Case Of Italian
Subsidiaries Based In Sweden.**

Abstract

The tension of enhanced performance has been guiding Multinational Corporations (MNCs) for decades. The complexity of their structure, the increasing competition, and the slowdown of the economy have encouraged MNCs to seek new ways to improve their internal efficiency and eventually their performance.

Only few organisations have understood the fundamental relevance of sharing the experience and knowledge gained through innovations and best practices. We focus our study on the case of Swedish subsidiaries fully owned by Italian MNCs, and we aim to verify if their communication and knowledge transfer systems allow them to raise the performance or, on the contrary, prevent interaction and cooperation in order to improve the overall performance of the organisation.

Key words: knowledge transfer, MNCs, subsidiary, performance, communication.

Table of contents

<i>Abstract</i>	2
<i>Table of contents</i>	3
<i>Introduction</i>	5
Problem Statement.	6
<i>Literature Review</i>	7
Entrepreneurship.	7
Attention	8
Knowledge transfer and implication on performance	9
Impediments.....	10
Enhancing knowledge transfer.	10
<i>Purpose</i>	11
<i>Methodology</i>	12
The companies	13
Structure of the interview.	13
Attention given from the HQ to the subsidiary.....	14
Entrepreneurial activities, innovations and subsidiary’s performance	14
Knowledge-flow between HQ and subsidiaries and between subsidiaries.....	14
MNC’s overall performance.....	15
Limitations:	15
<i>Empirical Findings</i>	17
Level of the HQ attention on subsidiaries.....	17
Level of innovation reach by subsidiaries	18
Cases of local initiatives.....	18
Degree of liberty held by subsidiaries.	20
Knowledge transfer and communication inside the MNC	21
The Formal communication channels.....	22
The informal communication channels.....	23
Overall advantage of the MNC.....	25
<i>Analysis and discussion</i>	26
How attention affects innovation.....	26
Knowledge transfer and communication inside the MNC	27

Overall performance of the MNC.....	29
<i>Conclusion</i>	31
Future research.....	31
Acknowledgements	32
<i>References:</i>	33
<i>Appendix</i>	37
Questionnaire	37

Introduction

The ultimate goal of a MNC is to increase its turnover and profits worldwide. The need of coordination among all the worldwide spread subsidiaries is thus necessary. Furthermore, in such a global and competitive market, one of the most important things in order to earn market shares is to stay constantly innovated.

On one hand, subsidiaries are considered to be on the frontline of the market. That means that they are clearly exposed to the flexibility of the market such as market changes, trends and opportunities. On the other hand, it is strictly the task of the headquarters to grant any extent of support to encourage autonomy and innovation.

This mentioned support is called attention (Bouquet and Birkinshaw, 2008). Therefore the degree of liberty of the subsidiary also depends on the level of attention given by the parent company. Greater liberty and autonomy make subsidiary managers entrepreneurs, increasing their willingness to take risks and improve the performance (Zahra and Covin, 1995).

A central issue carried out by several researches is concerning the spread of the knowledge gained by subsidiaries through their innovation and practices.

“If only we knew what we know” (Carla ‘Dell and Jack Grayson, 1998) is a statement that refers to the advantages of the knowledge sharing among the MNC network, empathizing the fundamental importance of the cooperation, communication and knowledge transfer between subsidiaries and HQs.

Kogut and Zander (1992, 1993) ascribe the existence and the growth of the MNC to the fact that they are “efficient vehicles for creating and transferring knowledge across borders”.

Problem Statement.

Knowledge transfer is not solely perceived as a one-way movement of methods from HQ to foreign subsidiaries (Li Li, 2004). In fact, “reverse knowledge transfer” (Håkansson and Nobel, 2001) from subsidiary to HQ is increasingly becoming an object of research. For this purpose, we will study 3 Italian MNCs that have fully owned subsidiaries in Sweden.

We believe that the knowledge achieved by subsidiaries through best practices and innovation is fundamental for the improvement of the overall performance of the MNC. Thus, in this Thesis, we are going to analyze the processes that allow knowledge flow. In particular, we are going to study the mechanisms that enable subsidiaries’ autonomy and entrepreneurship and the way that those activities bring advantage to the MCNs through the knowledge sharing.

Literature Review

In the following literature review, we try to analyze extensive amount of features that might bring to a general advantage of the MCN through knowledge transfer.

Entrepreneurship.

Many previous studies dealing with Multinational Corporations pointed out the importance of the entrepreneurial potential in terms of performance at a subsidiary level. Hedlund and Ridderstråle (1992: 5) argued that till that time the research mostly focused on “the exploitation of givens (i.e., existing product combinations) rather than on the creation of novelty”. A definitely relevant contribution to the overcoming of this mentioned lack was given by Birkinshaw, who constantly provided many explanations to the reasons why the role of subsidiary, in terms of initiative and entrepreneurial activities, is substantial for the overall performance of the MNC. He defines initiatives as entrepreneurial processes, beginning with the identification of an opportunity and culminating in the commitment of resources to that opportunity (Birkinshaw, 1997).

To better understand the definition above, it is very important to clarify the concept of the adjective “entrepreneurial”. Stopford and Baden-Fuller (1994) studied, among all, the issue of “the creation of business activities within the existing organizations”. However, most times, business activities are not enough to be considered as entrepreneurial. For instance, a marketing campaign, conducted by a subsidiary’s marketing department, often has to follow strict norms and discipline. Entrepreneurship is more. It is a predisposition towards proactive and risk-taking behaviour (Covin and Slevin, 1991, Miller 1983); use of resources beyond the individual’s direct control (Kirzner 1973, Stevenson and Jarillo, 1990) or a clear departure from existing practices (Damanpour, 1991).

Referring to Peterson (1985), J.Barton Cunningham and Joe Lisher (1991) argue that an entrepreneur is who identifies and exploits an opportunity. A deeper concept that we selected for our Thesis is provided by Birkinshaw (1998). He made an important premise stating that subsidiary companies worldwide are exposed to a huge amount of inputs and opportunity that could never be perceived by headquarters’ managers. Therefore subsidiaries have to seek and achieve those opportunities that are hidden in their local marketplace. This kind of initiative is called externally-

oriented ones. Nonetheless, also internally-oriented initiatives exist. They are focused on improving already existing relationships within the MNC.

In our research, those two types of initiatives will be linked to three kinds of subsidiary described by Goshal in 1986. He conducted a study based on the nature of the subsidiary's activities. He noticed that some units were devoted to activities aimed to the creation of new products and technology ("capability-augmenting activities), others to activities directed towards products or process improvement (capability-exploiting activities) and some others that have none of those roles. Furthermore, he named the first type as *Innovators*, the second ones as *Contributors* and the third kind as *Implementers*. It is relevant to notice that Goshal did not focus his study on the formal mandate given by the parent company but, rather, he investigated the mandate realized by the subsidiaries.

A central issue concerning the role of the subsidiary and specifically regarding its perception from both the subsidiary and the HQ points of view is carried out by Birkinshaw et al. (2000). The authors studied the connection between the perceived role of the subsidiary, the autonomy and, finally, the effective cooperation between the subsidiary and the HQ.

Birkinshaw et al. (2000) proved that if the HQ perceives that the subsidiary overestimates its role (by inappropriate demands and requests), it wields strict control. Therefore, this turns in a lower cooperation between the HQ and the subsidiary: rejecting initiatives and ideas on one side and refusing to share knowledge and cooperation on the other.

Attention

Prior studies already touched this issue and Boquet and Birkinshaw (2008) defined it as "the extent to which the parent company recognizes and gives credit to the subsidiary to its contribution to the MNC as a whole". Since this corporate feature might be difficult to capture, the authors only referred to three general cases (Ambos, Birkinshaw, 2010): (a) supportive attention, based on the discretionary resources provided by the HQ to the Subsidiary to facilitate the development, (b) relative attention is related to the perception of recognition from a subsidiary compared to the others and (c) visible attention shows the public recognition expressed in media.

The article shows three hypotheses. Taking the HQ's attention as a basis, it will help respectively (1) the autonomy, (2) the power and (3) initiative entrepreneurship, which are consequently and directly affecting the performance.

Knowledge transfer and implication on performance

We explained that a given attention towards the subsidiaries might affect the entrepreneurial processes of the mentioned subsidiary and its performance consequently. At this point, we must know how these practices could confer advantages to the Multinational as a whole. In our opinion, we should find the answer through those mechanisms, so called by the literature as knowledge transfer.

The knowledge transfer concept has been a topic for several studies. It is generically viewed as the movement of knowledge within the net. Specifically, it is the know-how and information shared between each unit of an organization (Appleyard 1996; Gupta and Govindarajan, 2000; Shulz, 2001; Tsai, 2001).

In this thesis, we refer to the definition adduced by Szulansky (1996:28). He argues that knowledge transfer is a dyadic exchange of knowledge between a source and a recipient unit.

As Ciabuschi (2004) states, innovations nowadays are not enough to enhance the competitiveness of a company if they are not shared globally. Those transfers are rather difficult and costly: Von Hippel (1994) used the adjective "sticky" to define all the processes that occur with regard to the knowledge transfer or problem solving. The author states that those mechanisms are mainly held in one single location, and only rarely investments are made to pursue improvements or more efficiency in those mentioned practices.

Knowledge transfer is a clear opportunity to improve the overall performance of the MNC (Barlett and Goshal 1989; Kogut and Zander 1992; Szulanski 1996; Tsai and Goshal 1998; Gupta and Govindarajan 2000; Foss and Pedersen 2002), but it cannot exist without the presence of systems and mechanisms that enable and facilitate the process (Li Li, 2004).

Impediments

Although knowledge transfer benefits each single subsidiary, as well as the whole MNC (Mahnke, Pedersen, Venzin, 2006), many impediments exist. The lack of adequate communication channels and the tacitness of knowledge are relevant examples (Mahnke, Pedersen, Venzin, 2006).

Some other authors adduced other causes such as the lack of a reward system for sharing knowledge (Szulanski, 2003). Forsgren (1997). For instance, states that subsidiaries have different goals, interests, and budgets; hence knowledge transfer might mean a loss of bargaining advantage.

Sharing knowledge may become a cost in many cases. It may require time and resources, especially when the information is sticky or requires face-to-face interaction (Von Hippel and Tyre 1994). These mentioned time and resources could be useful for subsidiary's internal business and development (Pedersen et al. 2003). Hence, the opportunity costs of knowledge transfer are relevant for the subsidiary (Forsgren et al. 2000).

Furthermore, in many cases, bureaucratic and formal procedures requested by MNCs prevent the outflow of knowledge and new ideas. Additionally, hierarchical organizations even prevent cross-functional communication and cooperation (Georg Disterer, 2001).

The need to set adequate incentive mechanisms and an appropriate organizational structure in order to encourage knowledge outflow is relevant. In fact, if knowledge remains inside the subsidiary or it is spread slowly, worldwide leverage opportunities are none (Li Li, 2004).

Enhancing knowledge transfer.

Researchers have tried to suggest some control strategies that an HQ may adopt to enhance the knowledge transfer.

Social Interaction: Knowledge outflows may be achieved through organizational socialization, such as a development of a social mechanism that improves the creation of intensive and cooperative HQ-subsidary relationship (Tsai and Ghoshal, 1998; Tsai, 2001; Ghoshal and Bartlett, 1988). Some examples could be mutual visits, joint-works in teams, task forces and committees (Li Li, 2004).

Trust: “Trust, by keeping our minds open to all evidence, secures communication and dialogues” (Misztal, 1996:10).

Trust is also a relevant feature that enhances the knowledge transfer. Researchers conceptualized it as a necessary element to achieve intra- and inter-organizational cooperation (Smith et al, 1995) and eases the sharing of intellectual capital (Nahapiet and Ghoshal, 1998).

Referring to Knez and Camerer (1994) and to Kramer, Brewer and Hanna (1996), Nahapiet and Ghoshal (1998) collective trust may be seen as an “expectational asset” to rely on and to enhance cooperation and coordination.

Purpose

Ambos and Birkinshaw (2010) argue that “the more attention a subsidiary receives from HQ, and the more autonomy it has, the higher will be its performance”.

If the HQ provides support, relevant information or recognition, the subsidiary increases its autonomy, avoiding the so-called “liability of isolation” (Monteiro et al. 2008). Furthermore it has been studied that a link between subsidiary’s autonomy and its capability to bring innovation exists (Goshal and Barlett 1988).

As a matter of fact, best practices and innovations are undoubtedly redirected towards headquarters and Rugman and Verbeke (2001) treated this phenomenon stating that “a potential for ‘reciprocal leveraging’ must exist for subsidiary-specific advantages to be nurtured and sustained in the MNC”.

The main focus of our Thesis is to verify the mechanisms that lead to this mentioned reciprocal leveraging. We believe that, in order to improve the performance of the overall MNC, the knowledge flow and the transfer of innovation and best practices is therefore essential.

Proposition: *A given attention to the subsidiary enhances entrepreneurial processes that lead to best practices and innovations. As a consequence, knowledge transfer within the MNC’s network is necessary to improve the overall performance of the MNC.*

Methodology

Italian MNCs' entry strategy for the Scandinavian market is usually based on the creation of distribution channels throughout agents, local partners or direct export. Only a relatively small number of them opted for the creation of a wholly owned subsidiary: approximately fifty. That marked the difficulty of conducting a quantitative analysis.

We collected information about the companies through the database *largest companies* provided by Uppsala University, and through two Italian-Swedish institutions, *Italchamber* and *ICE* respectively. The role of those two organizations is to act as an intermediary for Italian and Swedish companies that want to invest in both Countries.

We opted also to use a more informal way to communicate with the companies. We collected the names of all the top managers working for Italian MNCs in Sweden through the platform *LinkedIn*, which is a very famous social network that connects most of businessmen worldwide. In fact, we could find most of the managers we needed through that platform.

We sent a presentation letter and a request for a meeting to all of them and only three out of roughly thirty replied and agreed.

We managed to have face-to-face interviews with the Managing Directors of respectively Company A and Company B. Both of them lasted more than one hour and, especially in the first case, we managed to ask a relatively high number of questions and, most important, to have the possibility of a very useful open discussion. Those discussions also helped us to find the exact focus of our thesis, understanding strengths, problems, and limitations.

The third company is Company C and we scheduled an interview with the Sales Manager. It was a phone call and, due to the short time availability of the interviewee (about twenty minutes) we decided to ask just some direct and precise questions in order to enhance an open discussion that could give us at least a general perception of the company.

However, both Company B and C gave us the possibility to have a second and more in-depth interview.

The reason why we wanted to contact only top-level management was stimulated by some considerations. First of all, we noticed that most of the subsidiaries were relatively small and, because of that, most of the connections between the HQ and the subsidiary must be held by the top-management. Secondly, we knew that all the managers we wanted to interview had previously worked in other branches of the MNC, in high-level positions. Therefore we considered the importance of the good knowledge of the MNC as a whole, not only of the subsidiary and the market they are operating in.

The companies

The relative low number of Italian subsidiaries in Sweden made the approach of a quantitative analysis very difficult.

Company A is a young enterprise in Scandinavia; they manage 4 countries including Norway, Finland, Sweden and Iceland. The subsidiary has 18 employees and a turnover of about 8 million Euros. Company B has been in the market for more than 10 years with revenues for 40 million Euros and 18 employees. Its market is characterized by raw price volatility and high competition. A group that entered the Swedish market in 1999 through acquisition owns Company C. The dimension of the company is remarkable different from the two presented before: it has 545 employees and a turnover of 104 million Euros.

Finally, we collected information about the companies, such as revenues, number of employees, presence in the market, through their financial report, corporate website and during the interviews.

Structure of the interview.

In order to conduct an efficient and goal-oriented interview, we built a questionnaire (Appendix 1) that we mainly used as a guideline, composed by very specific questions and otherwise. The aim of that mentioned questionnaire was to enhance an open discussion with the interviewees and to get more detailed answers from their speeches.

The guideline was divided in four sections: attention, innovation and its results, knowledge transfer and advantages in the overall MNC.

Attention given from the HQ to the subsidiary.

As the **attention** is defined as the contribution to the general development of the subsidiary provided by the HQ, we focused our questions with regards to the amount, type and frequency that resources, such as financial, moral or intellectual, are given by the Italian Multinational to the subsidiary.

Furthermore we also wanted to figure out if they are aware of any kind of reward as consequence for obtaining good results, such as bonuses, public awards or acknowledgements.

Entrepreneurial activities, innovations and subsidiary's performance.

When we started talking about **innovation**, we always wanted to make clear that by that term we do not only intended new products or R&D. We actually meant all the practices, processes and adaptations developed by the subsidiary that are considerable novel to the company. It might be the adaptation to the Swedish market of an already existing product, a diverse manner to distribute the products, dealing with suppliers and customers, how to face logistic issues or finding any best practices that appear to be more efficient for the subsidiary.

We then asked whether those innovations brought results such as financial ones or as a general growth of the subsidiary in terms of knowledge and efficiency and how they figured it out.

Knowledge-flow between HQ and subsidiaries and between subsidiaries.

We started dealing with the **knowledge transfer** section of our interview. In this part we inquired about the way and the frequency they share information with the headquarter starting from a general point of view (workshops, email, telephone and meetings) and getting more and more details concerning the manner they interact with the HQ about planning and decision processes.

We also knew that many MNCs have started using technologically advanced IT System in order to deal with the so-called knowledge flow (Ciabuschi, 2003). We thought it was proper to ask the interviewees if they have any and why.

To understand the knowledge flows between HQ and subsidiaries we decided to focus, as a first approach, on how the communication is conducted - how and how often they communicate and about what.

MNC's overall performance.

The **advantages** of the knowledge sharing were eventually measured by asking questions regarding the possibility that those best practices, innovation or ideas were taken into consideration from the HQ and then shared within the MNC's net. Moreover, we were also interested in understanding the individual perception of the managers about the knowledge transfer mechanisms, asking if any problem occurred and which was their personal satisfaction.

It would have also been interesting to interview the HQ general management about this topic but, due to lack of time and resources, we were not able to contact them. Nevertheless we found some really interesting information from the subsidiaries management.

Specifically, we asked whether any kind of local innovations, best practices or researches was transferred to the HQ. In this way we did not focus on the type of innovation itself, but in the way the HQ accepts it. Additionally, we were interested in understanding how the HQ perceives the information and in which way it supports it or rejects it.

Limitations:

To begin we have the sample dimension, only 3 companies over a possible sample of 40 Italian MNCs based in Sweden agreed to be interviewed for our research. So we know that the simple fact of such a small sample can be a source of limitation. Secondly we interviewed companies operating only in two different industries. It is possible that other companies working in different markets as the one presented here may have a different situation and be more open to knowledge share

systems. Furthermore, we only have the subsidiary's point of view we didn't manage to have information from the Italian HQ.

Empirical Findings

All the companies treated in this study are presented anonymously. In this way, we are able to provide more details and specific issues avoiding any sort of confidentiality issues.

Level of the HQ attention on subsidiaries.

We first focus our interest on the level of attention given by the HQ to the subsidiary. We basically want to understand to which extent the Italian-based HQ provides any kind of resources to the Swedish subsidiary in order to promote the development of innovation and best practices. By resources we do not refer only to financial ones, but we also consider intangible ones such as “intellectual assets”, time, recognition.

The manager interviewed for Company A argued that the HQ does not usually provide financial resources of any kind except from refunds for some marketing operations or commercial practices. Moreover he also stated that this reimburses are provided relatively slow. On the contrary, the subsidiary enjoys a high level of constant sharing of knowledge, technology and management in order to develop new plans or general activities.

For company B the situation is slightly different, the HQ provides enough attention to the subsidiary but only for reasons regarding the reach of goals. For other practices the attention level is lower and they do not predispose high amounts of time for this purpose. The attention for company B fluctuates during the year and the interviewee claims that the attention depends on the goals reached. The more goals the subsidiary reaches, the less attention the HQ gives to the subsidiary and vice versa. But for what regards the promotion and development of innovations and/or best practices the attention is lower or non-existent.

Company's C situation is instead particular. The HQ attention is extremely low concerning daily operations. On the contrary, the HQ tends to provide higher attention with regard to more relevant projects. However, in this case the Italian management tends to travel regularly to the Swedish subsidiary in order to gather information and understand how practices are managed. This direct contact may not be enough for an optimal attention but it implies, as stated by the Manager interviewed, a good level of participation between the HQ and the subsidiary.

Level of innovation reach by subsidiaries

This part of the interview was very useful to understand the degree of liberty that subsidiaries hold in terms of decisional power, implementation of best practices and development of innovation and research. Basically it is meant to comprehend if the subsidiary is centralized or decentralized from the HQ and to which extent.

Local entrepreneurship and initiatives depend on the function and strategic role of the subsidiary. Company A, for example, is still in a setting up process and many decisions in operational fields such as human resources, logistic and marketing must still be taken. Though, the main objective is not properly to make profits or to reach certain financial results. In fact, the subsidiary is still building the entry strategy, understanding trends and consumer behaviors.

The case with Company B is instead different. The subsidiary is well established in the market and, also due to the competitiveness of the market, it has to follow and reach very strict criterias and goals. Most of the decisions are made based on financial objectives and business plans.

Finally, Company C, which is different from the others, both on the historical background and size, enjoys a relatively high degree of decentralization. As the manager stated, it has high freedom in terms of operational issues such as recruitment (not regarding top management), marketing campaigns, logistics, and so on.

Cases of local initiatives

All the three subsidiaries have faced the need to develop an initiative. Company A needed a product adaptation for the Swedish market, Company B needed a new product for the Nordic market and Company C needed the launch of an already existing product for Sweden. All of those proposals were nurtured by an expected customer's need that could bring successful results, based on previous market researches.

Company A saw a clear trend in the Swedish market and understood that the product they were selling would have faced a serious drop in sales. Furthermore, a new niche of customer was gaining ground and that was a good occasion to take the chance as well.

Apparently it was very hard to convince the HQ. It took more than one year to have the product commercialized, and the subsidiary's manager complained arguing that some other competitors would have waited for just few months and steal relevant and strategic market shares.

The CEO was not able to adduce financial results due to the early stage of the commercialization process but he stated that all the distribution channels accepted the product with satisfaction. Now we will present another example of communication problems and knowledge transfer:

The HQ complained with the manager about the late introduction of the new product asked by the subsidiary for the Swedish market. The manager had to explain that due to the late response of the HQ they couldn't access the data base of the distributors for the commercialization. Swedish retail stores work differently than Italian retailers. In Sweden the producer enters the retailer's data base and provides the retailer with enough information to evaluate the product and to present the product sales potential. Then it is up to the retailer to decide whether to distribute or not the product proposed. The fact here is that in Sweden this "product proposal" is available only three times a year. If the company doesn't have the product or has a delay, or for any other reason it is not able to introduce the information in the data base, the producer will have to wait four months to upload a new product proposal. As things in Italy work differently, retailers have no specific dates for new products entry in their shelves, new products can be proposed with no time constraints. It took some time to make the Italian HQ understand the Swedish negotiation process.

Furthermore, this mentioned product will be sold also in other countries where customers' habits are similar to the Swedish ones. And as a larger implementation the company decided to start a worldwide distribution.

Company B requested a brand new product for the Swedish market. The manager of the subsidiary acknowledges the hierarchical rank of the "importance" among the subsidiaries and, considering the small size and the complexity of the market he operates in, other countries such as France, UK, Spain or Germany are investigated by prior attention by the HQ.

The product the subsidiary needed would have been almost useless for other bigger markets and the HQ rejected the business proposal. Nonetheless it could improve revenues for Nordic countries and be a starting point for future market entrances, such as Russia.

Basically the production capacity of the MNC would be inadequate to confer a profitable cost-price ratio to the product. The overall needs of the MNC are always considered more important than the local subsidiary's needs. However, subsidiary's expertise and research will turn to be useful for future projects in other similar Countries.

Company C is certainly in a different situation. The manager gave us two different examples that made us understand the degree of liberty that the subsidiary deals with. The interviewee explained that when the HQ required the commercialization of a particular product in the Swedish market, the local managers doubted about its success. That was basically because the management is aware of consumers' habits and needs. They actually decided not to sell that product in Sweden.

On the contrary, when the subsidiary's managers proposed to the HQ to commercialize in Sweden a particular product that till that moment was sold by a Swedish import company, the Italian managers rejected the plan. The interviewee did not explain us the exact reasons of the rejections but he claimed that one of the major problems they encounter when dealing with the HQ was communication.

Degree of liberty held by subsidiaries.

As previously mentioned, this section of the interview also deals with the degree of liberty held by the subsidiaries in order to take operational and strategic decisions that might lead to the implementation of best practices. Each of the interviewed subsidiaries has different decisional power based on the function and final objectives.

Depending on the importance or radical extent of the decision or the change implemented by the subsidiary, all of them need, as a requirement, the approval by the HQ. For instance, Company A has free decisional power regarding the choice of suppliers, outsource of logistics, design of commercial practices at local level, price negotiation with customers, creation of post sales channels, identification of new customer segments. On the other hand, it needs the final approval concerning the hiring of new employees, salaries and bonuses, all the marketing processes (not to undermine the brand image), re-pricing and re-adaptation of products to local needs and acquisitions.

Despite the approval requirement for many business practices, the interviewee feels that the HQ seriously takes all his opinions and suggestions into consideration. The HQ, in fact, respects the importance of the subsidiary's role and makes its managers being proactive and determinant for the conduction of the practices.

The case with Company B is instead different as the request for approval is usually more formal and bureaucratic. Besides relevant proposals which need detailed business plans, all the other requests have to follow strict guidelines and timing conferred by the HQ. Furthermore, due to the high competitiveness of the market, the volatility of the costs of raw materials and the too complex and wide structure of the MNC, the HQ delineates a strategy strictly based on the achievement of financial goals and selling volumes.

Nonetheless the managers of the subsidiary enjoy relatively high decisional power concerning the conduction of the company. For example, due to the on-going financial recession, they needed to make cuts in the subsidiary's structure. They decided to merge two departments of the subsidiary: customer service and training. It turned out to be a successful choice as the customer service department could train the employees thanks to the awareness of customer needs and issues of claim.

Company C, as compared to the other subsidiaries, has the highest degree of decentralization. They enjoy high decisional power in terms of marketing campaigns, web marketing, product adaptations, pricing, hiring and training, although they are obliged to refer most of their important plans to the manager of Northern Europe and, periodically, to the top managers of the company.

Knowledge transfer and communication inside the MNC

During the three interviews we managed to find out different situations that lead to specific needs depending on the function or the role of each subsidiary. It is clear that none of them has any kind of integrated knowledge mechanisms between the subsidiary and the HQ that could reduce time, costs and improve the communication. Nonetheless it is important to remind the reader that only the subsidiary's point of view is considered in this Thesis. Two main communication channels were claimed by the interviewees: one is formal and the other one informal.

The Formal communication channels

The formal communication channels are created by the HQs to give the same quantity and quality of knowledge sharing to each subsidiary.

The formal communication channels are the same in each MNC interviewed; they basically consist in big meetings for each region, such as annual meetings, quarter meetings, monthly meetings and semester meetings. The objective is to improve and share best practices, new production capabilities, new markets entrance practices, etc.

Additionally, they are also meant to create a net of relationships between managers in different countries. This would allow a direct contact for future knowledge sharing inside the MNC. According to the interviewees, one of the main objectives of the conventions, meetings, fairs, and other formal channels is to create relationships and, through that, trust between different managers.

Those communication channels allow restrict groups of people to interact with each other in a limited range of time.

Different kind of meetings exists. Annual meetings concern normally worldwide managers in the HQ once or twice a year, generally for business reports. Quarter meetings usually concern a reduced number of countries and normally they are regional meetings. During those meetings a group of countries from the same geographical area meets to present their activities and practices adopted during the year.

Finally, we found that each company has its own standardize practice to communicate specific needs to the HQ. This is, for example, adopted for hiring processes, business plans presentations and any kind of requests or needs demanded by the subsidiary. This standardized practice allows the HQ to equally evaluate the request of each subsidiary.

The limits of formal communication channels claimed by the interviewees -the high cost of organization, the time spent to travel and at the meeting limit the possibility to get to know the entire potential network- induce the creation of an informal communication channel, built in order to bypass the HQ referring directly to other subsidiary's managers within the MNC's network.

The informal communication channels

During the interviews, one big issue was the fact that in order to improve the communication, reduce time, and increase performance, managers have to contact each other at the subsidiary level to have a broader access to information that in other ways would take more time and resources.

Informal communication channels are developed by the subsidiaries as alternative communication methods to improve their ability to deal with daily problems and to increase their liberty face to the HQ.

In all subsidiaries, the main informal channel used, to bypass the HQ, is the subsidiary-to-subsidary contact.

The Company B's manager gave us one example concerning this issue. The HQ had installed a new IT-system in specific subsidiaries but one of these subsidiaries based in Eastern Europe had some difficulties using the new software. After several communications with the HQ, they decided to contact another subsidiary in Western Europe to solve their problems. Instead of waiting for the HQ to take action, implying time delays, they preferred to bypass the HQ and contact directly another subsidiary.

Another informal communication channel is generally based on one-to-one contact among managers. Company A's interviewee gave us some information about this concern. The manager contacts its counterpart in another Country to access specific information that would take more time through the HQ. The interviewee claimed that the possibility to access specific data in other subsidiaries with different objectives is almost the sole manner to share information, due to the lack of knowledge transfer mechanisms within the MNC. For example, technical specifications such as machinery or production processes is not easy accessible through the HQ but by contacting the production plant they can solve problems faster. Providing better customer service.

One of the practices consists in building personal relationships among subsidiaries managers. Through that, communication is direct and the risk to by-pass the HQ is high. Company A's manager stated that the personal contact with other subsidiaries managers is extremely important for their work.

There are different ways to create networks, but the main processes that allow it are the meetings called by HQ. The only limitation is that not everybody is able to attend them because of physical, time and cost constraints.

Informal communication channels are widely used by all the three subsidiaries but they are affected by some limitations.

One limit is the trust that a manager can have on the counter part if they have never met. This situation raised up between two managers of the same company but in different subsidiaries. One of the managers was contacted by the other one to obtain information about a client. The manager interviewed at the beginning did not pay attention to the request. The requester had to contact the regional manager to make the Swedish subsidiary manager reply to its requests. The creation of trust as claimed by the manager is important because it regards company's private information. Finally, after different communication between the regional manager and the subsidiaries managers the information started flowing between them. The interviewee claimed that this wouldn't have happened if he knew the counterpart. Previously he agreed to help a known subsidiary manager because of the trust and previous contacts between them.

Another limitation concerns the waste of time and resources. Company B and C's managers argue that in many cases managing the business of the subsidiary takes already a lot of time and effort and therefore the possibilities to "help" other counterparts are rare and might be seen as a waste of time and resources.

During the empirical research we manage to gather different information and points of view. Manager of company A is into the knowledge sharing process and has a positive attention towards it. While the manager of company B is more skeptic about this topic, he prefers to avoid it and considers it a possible distraction from company's main objectives. The approach to the questions must be taken in consideration, the subjectivity of each interviewee pushes them to give as much arguments as possible to support their own point of view.

Overall advantage of the MNC

During the interviews we asked if the MNC gained any kind of advantage thanks to the innovations or practices developed by the subsidiary.

Company A introduced in Sweden an adapted product and, apparently, this product will be sold in other countries characterized by the same features of the Swedish market.

Though, the interviewee could not give us financial results since the product has not reached the final customer yet. However, the manager is confident that the product will have successful outcomes as the distribution channels accepted it with satisfaction. In the previous paragraph we analyzed how the delay of the commercialization process of such product affected the timing and the success of the product. We believe that a better communication and an appropriate reactivity by the HQ would have bettered off the overall advantage of the MNC, which, in any case, was already good.

Company B is based in a relatively small market if compared to the others the MNC operates in. That might also be noticed from the fact that the function of the subsidiary is mainly based on the achievement of financial and volumes goals. Besides that, the manager interviewed argues that the position of the subsidiary might turn out to be strategic in the future, bringing advantage to the MNC. In fact, the Italian MNC is planning to enter in the Russian market and, to this purposes, the experience and the research of the Swedish subsidiary would be fundamental. Moreover, the subsidiary would also take advantage of the enlarged production capabilities for its products and expand its market in Sweden, not having to deal anymore with small volumes and gaining importance and attention from the HQ.

Analysis and discussion

In this chapter, we will crosscheck the findings from the different cases and also compare them with the literature. Furthermore, the different attributes will be examined to better understand the enhancement of performance on the overall MNC through knowledge transfer.

How attention affects innovation

Each subsidiary interviewed has a different level of attention given by the HQ. In the cases with the companies interviewed, the level mostly depends on the subsidiary's role and background.

We noticed that, in all three cases, the level of attention and the type of attention differs during the year. If the situation requires attention or communication from the HQ, this latter one would satisfy the need, but otherwise, this phenomenon does not occur spontaneously.

A connection between the HQ's attention and the level of innovation and implementation of best practices made by the subsidiary exists (Ambos and Birkinshaw, 2010; Goshal and Barlett 1988) and one of the purposes of our Thesis is to verify this connection.

Nonetheless, we noticed that many different factors affect the development of this mentioned connection. As a fact, the company size, the industry, the years of presence of the subsidiary in the market, the revenue, the role of the subsidiary and the corporate culture, among others, are independent variables which influence the importance given by the HQ to the subsidiary.

Therefore, even if the three companies interviewed are different from each other, we found out the existence of different levels of attention and, as a consequence, the degree of entrepreneurial activities differs. We believe that, in our cases, constant variables such as the level of attention given by the HQ and the entrepreneurial activity are influenced by the independent variables presented before.

The level of entrepreneurial activities could be directly proportional to the level of attention given by the HQ (Ambos and Birkinshaw, 2010). Nevertheless, in our cases, the independent variables previously described modify this proportion.

Company A enjoys a relatively high level of attention because of its young presence in Sweden and its start-up issues. That gives a relatively high level of entrepreneurship to the managers; Company C, instead, is characterized by different independent variables and, in fact, its degree of entrepreneurship is higher even if the attention given by the HQ is lower.

Additionally, in the case with Company A, the entrepreneurial liberty gave the subsidiary the chance to develop a different product that would probably turn out to be successful worldwide. For what concerns Company B, we argue that the independent variables mentioned before strongly affect the proportion between the attention, which is relatively high, and the entrepreneurial liberty which is, instead, low. In fact, the initiatives enhanced by Company B were dictated by external factors such as the world financial crisis and not by attention provided by the HQ.

HQ provides attention to Company B depending on the achievement of its goals. As the manager stated, during major economic breakdowns, the HQ's attention on the subsidiary immediately rises. If objectives are not reached and the performance of the subsidiary is lowering, HQs would communicate even on a daily basis with the subsidiary in order to provide resources, give advises and sometimes dictate procedures to undertake.

Knowledge transfer and communication inside the MNC

According to the findings, the knowledge outflows processes differ for each company interviewed. Nevertheless, we may analyze a common trail.

Firstly, each of the company object of this study, have to follow relatively strict communication mechanisms (fulfill request forms, present plans in specific periods of the year and so on...). This bureaucratic issue may also affect the performance of the subsidiary, as it might not be adequate to meet the timing and needs of the subsidiary. Both Company A and B complained about this problem that, actually, influenced their activities and, sometimes, prevent them to undertake initiatives. In fact, as argued by Georg Disterer (2001), bureaucratic and formal procedures requested by HQs limit the knowledge outflow and sharing of new ideas.

Interviewees argue that standardized procedures give the same level of attention to every subsidiary, but on the contrary, prioritize the decisions made by the HQ depending on the “importance” given to the subsidiary.

In many cases, the acknowledgement of a restricted influence to the overall turnover of the MNC makes the subsidiaries’ managers respecting a sort of hierarchical importance in terms of relevance and number of requests and needs. By that we mean that managers often communicate with the HQ as they feel in a lower position compared to other units. With regard to this issue, Georg Disterer (2001) argues that hierarchical organizations prevent cross-functional communication and cooperation. Additionally, it is true that if a subsidiary perceives low attention and scarce acceptance for requests and proposals, its willingness to cooperate and communicate with the HQ would be lower (Birkinshaw et al., 2000).

The creation of informal channels is actually one of the results of these practices. If the entire network cannot access the information and the HQ is perceived as a slow interlocutor, the subsidiaries need to “act on their own”, contacting each other in order to transfer the knowledge among them.

The meetings organized by HQs are the first step for the creation of a network inside the company to improve the knowledge transfer (Tsai and Ghoshal, 1998; Tsai, 2001; Ghoshal and Bartlett, 1988). During the interviews, managers claimed that one of the main chances is to get to know other colleagues at those meetings. There they will create a network based on reciprocal trust.

Actually, an important factor that allows direct contacts between subsidiary’s managers is the creation of relationships. It is based on the personal knowledge between the two parts and above all the creation of common trust.

Trust, in fact, is one of the main features connected to the sharing of knowledge (Smith et al, 1995; Nahapiet and Ghoshal, 1998).

The subsidiaries managers we interviewed know that the formal communication channels are not enough to access to all the information they may need, but they know that they can access the informal channels to obtain it.

Interviewing some managers at Siemens, Ciabuschi (2003) found out that companies and subsidiaries established in industrialized countries and operating for relative long time do not feel the need of advanced technology to share knowledge or best practices. That is because they prefer

to use informal or alternative channels since they developed a deep knowledge of the management and organization. However, when it comes to inexperienced realities of the MNC (emerging markets or unindustrialized countries), those latter subsidiaries statistically prefer to interact with IT-Systems provided by the MNC. The aim is basically to re-use or re-adopt previous and successful best practices in other parts of the world.

We ascertained that the subsidiaries of our study generally face a range of problems that reduces the amount of shared information. Therefore that amount is inadequate to confer a tangible advantage to the MNC as a whole. This latter statement has already been proved by Li Li (2004).

Two main types of problems exist. Taking into consideration the research made by Georg Disterer (2001), the first one is intrinsic on the corporate value and strategy of Italian MNCs in general: family-owned business, bureaucracy and hierarchy-oriented companies with regard to the tendency to control most of the business processes. The second branch of issue regards the management of the communication systems through the MNC's network. Here we refer to all the different issues concerning the knowledge flow inside the MNC, with special regard to the way and the time used to communicate, the return of the information and the path that the communication faces within the MNC's network.

We believe that in case of scarce or inadequate knowledge sharing systems, the knowledge and the experience is confined in a small a particular area of the MNC (Li Li, 2004). Furthermore, the knowledge might disappear or become useless when the innovation process or the best practise is complete. A deeper example could be given stating that managers bring the knowledge and the experience with them when they leave the company or the subsidiary.

Overall performance of the MNC

There are two main factors that influence the company's performance. The first one is on the subsidiary's side: if it has enough liberty from the HQ to act on its own and being on the front line, it will gain enough information to increase its internal performance. On the other side, the HQ needs to provide all subsidiaries with common rules and tools to increase their level of communication and knowledge transfer between them. They bypass the HQ, the main intermediary, for most of the communications.

Based on the empirical results two situations come to light. The first implies a higher liberty degree that allows higher innovation inside the subsidiary. This will be transformed in knowledge and then transferred to the overall subsidiaries, increasing the overall performance of the MNC.

The second case is based on the fact that the subsidiary does not seek innovations because of the HQ directives. Tools and rules provided limit the quantity of knowledge. Leaving the overall MNC at the same performance level .

For what we can analyze, subsidiaries are the front line of the MNC. It is their task to improve and increase their own performance through new initiatives that will be distributed to all the remaining subsidiaries, only if the HQ provides the tools for this purpose. This kind of interaction will allow them to increase the overall performance.

Conclusion

During the study we noticed that several inputs and factors affect the path for an efficient knowledge transfer within the MNC. Literature imputes problems concerning the knowledge transfer referring to motivational and emotional factors (Szulanski, 2006). Not only knowledge is “sticky” (Von Hippel and Tyre 1994), but also managers may often be selfish and ambitious and they prefer to reinvent the wheel rather than use what someone else already invented.

Many factors occur. Both Subsidiary and HQ have their own needs and expectations. On one side, HQs tend not to accept ideas that do not come from the top and, as a consequence, subsidiaries are restive and do not assert their entrepreneurial influence as much as they could (Birkinshaw, 2000).

In our cases, managers know the importance of the knowledge transfer within the organisation, but they often perceive their tasks as the accomplishment of given objectives. However, it is the HQs’ task to enhance those mechanisms in order to encourage the knowledge outflow. Researchers have suggested control strategies that facilitate this process. For instance, Ghoshal and Bartlett (1988) assert that social interaction and normative integration improve the HQ-subsidary cooperation, as well as efficient reward and incentive systems (Szulanski, 2006).

As verified in our study, trust is a fundamental component without which the communication and knowledge sharing are prevented and the overall advantage of the MNC is minor (Nahapiet and Ghoshal, 1998).

Future research.

The data sample could include more firms, a broader geographical area and different industry population to increase the validity of our Thesis.

Moreover, as already argued by Ciabuschi (2004), IT-Systems would improve the advantage in the overall MNC since the sharing and the implementation of practises are faster. In our conclusion we also stated that *trust* is an important factor when dealing with other units. Therefore future research may focus on the building of trust inside IT-based systems. Finally, since the technological level is rising in MNCs, future studies dealing with the implementation of corporate social networks that may allow the interaction of all the employees within the same organisation would be interesting.

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Appendix

Questionnaire

Knowledge transfer in Italian MNC's and its implication on performance

As a base for the questionnaire we used the one provided by the TIME project. The questionnaire is a guide line for the interviews.

Interview characteristics: general information

1. MNE	Name:	
2. Business area/division	Name:	
3. Investigated sub-unit	Name:	
4. Country of investigated unit		
5. Address of investigated unit		
6. Respondent	Name:	Position:
7. Interview date		

Background questions

Unit characteristics

1	Type of unit	Division HQ	Subsidiary				Other		
2	Unit age	Years on the market			Years within the MNE				
3	Unit activities	Basic research	Technical development	Production	Marketing	Sales	Purchasing	Service	
4	Employees	Unit		Business area/division			MNE		
5	sales	Unit		business area/division			MNE		
6	return on equity (ROE)						Don't know		
7	R&D budget	Unit		Business area/division			MNE		
8	operating profit	Unit		Business area/division			MNE		
9	unit's share of business with other MNE divisional units	% of sales to other MNE units			% of purchase from other MNE units				
10	Unit's internationalization	% of employees overseas		% of foreign sales			% of your R&D overseas		
11	Unit's technical similarity with other MNE/division units	Product technology knowledge 1=not at all, to 7=very similar				Production technology knowledge 1=not at all, to 7=very similar			

Rate the importance of the following factors for division/business area HQ measurement of your unit's performance: 1=not important at all; 7=very important; -9 don't know

Your financial results	1	2	3	4	5	6	7	-9
Your market share	1	2	3	4	5	6	7	-9
Your growth	1	2	3	4	5	6	7	-9
Your product innovations	1	2	3	4	5	6	7	-9
Your production innovations	1	2	3	4	5	6	7	-9
Your knowledge sharing	1	2	3	4	5	6	7	-9
Other:	1	2	3	4	5	6	7	-9

Other:	1	2	3	4	5	6	7	-9
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Grade the following statements and questions: 1=totally disagree; 4=neither/nor; 7=totally disagree; -9=don't know

You develop many more innovations compared to other units in your division/business area	Core technology innovations	Product innovations	Product process innovations	Marketing innovations	Administrative innovations
You develop many more innovations compared to other MNE units(external to your division/business area)	Core technology innovations	Product innovations	Product process innovations	Marketing innovations	Administrative innovations
To what extent have innovations released by your organization during the past 5 years been transferred to other units within your business area/division	Core technology innovations	Product innovations	Product process innovations	Marketing innovations	Administrative innovations
To what extent have innovations released by your organization during the past 5 years been transferred to other units within the MNC external to your business area/division	Core technology innovations	Product innovations	Product process innovations	Marketing innovations	Administrative innovations

What is the relative influence of your unit compare with division/business area HQ considering the following decisions?:

Choosing suppliers	1	2	3	4	5	6	7	-9
Deciding on investments in production capacity	1	2	3	4	5	6	7	-9
Deciding on investments in R&D	1	2	3	4	5	6	7	-9
Deciding on investments in acquisitions	1	2	3	4	5	6	7	-9
Introduce new products domestically	1	2	3	4	5	6	7	-9
Introduce new products internationally	1	2	3	4	5	6	7	-9
Appointing senior managers in your unit	1	2	3	4	5	6	7	-9

Evaluate the following statements

Formal communication channels make you aware of your performance relative to other units	1	2	3	4	5	6	7	-9
Informal communication channels make you aware of your performance relative to other units	1	2	3	4	5	6	7	-9
Financial bonuses are given to individuals for sharing knowledge	1	2	3	4	5	6	7	-9

with coworkers								
Individuals with the reputation for sharing knowledge with others are favored for promotion	1	2	3	4	5	6	7	-9
Employees are fully aware of all the bonuses that may be received for knowledge sharing	1	2	3	4	5	6	7	-9
Do you use any IT-based systems within your unit?	Yes			No				-9
Is the IT business system shared by the whole business are and MNE?	Yes		Partly		No			-9

Subsidiary autonomy: 1=very low, 7=very high, -9=don't know.

Re-pricing of the products at local level	1	2	3	4	5	6	7	-9
Product adaptation to local needs	1	2	3	4	5	6	7	-9
Development of the market offer through local services	1	2	3	4	5	6	7	-9
Design of commercial practices at local level	1	2	3	4	5	6	7	-9
Outsourcing of logistics and customer care	1	2	3	4	5	6	7	-9
Development of new customers segments	1	2	3	4	5	6	7	-9
Creation of distribution and post sales channels	1	2	3	4	5	6	7	-9
Design of advertising practices at local level	1	2	3	4	5	6	7	-9
Salary and bonuses levels	1	2	3	4	5	6	7	-9

Innovation, Knowledge transfer & performance.

Has your unit made any innovation during the period 2001-2011?	yes	no
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First innovation

Type of innovation	Core technology	marketing	Product	Administrative	Production process	other
Is the innovation patented to any extent?				yes		no
When was the development of the innovation initiated and released?				Initiation		release
Who decided the path for the innovation?				HQ		Sub-unit
Who handled the innovation process?				HQ		Sub-unit

Second innovation

Type of innovation	Core technology	marketing	Product	Administrative	Production process	other
Is the innovation patented to any extent?				Yes		no
When was the development of the innovation initiated and released?				Initiation		release
Who started the innovation process?				HQ		Sub-unit
Who handled the innovation process?				HQ		Sub-unit

Third innovation

Type of innovation	Core technology	marketing	Product	Administrative	Production process	other
Is the innovation patented to any extent?				yes		no

When was the development of the innovation released?	Initiation	release
Who started the innovation process?	HQ	Sub-unit
Who handled the innovation process?	HQ	Sub-unit

Appendix 1: innovation.

Innovation characteristics

Knowledge transfer.

Is the innovation a result from knowledge transfer with the HQ?	1	2	3	4	5	6	7	-9
Is the innovation a result from knowledge transfer with other sub-units?	1	2	3	4	5	6	7	-9
How much help have you receive from the HQ?	1	2	3	4	5	6	7	-9
How much help have you receive from other sub-units?	1	2	3	4	5	6	7	-9
You usually contact other sub-units for problem-solving.	1	2	3	4	5	6	7	-9
You usually contact the HQ for problem-solving.	1	2	3	4	5	6	7	-9
You usually get contacted by HQ for purposes different from normal administration.	1	2	3	4	5	6	7	-9
You usually get contacted by other sub-units for purposes different from normal administration.	1	2	3	4	5	6	7	-9

Performance evaluation.

Has the innovation improve the general performance of your unit?	1	2	3	4	5	6	7	-9
Has the innovation improve the general performance of other sub-units/business areas?	1	2	3	4	5	6	7	-9
Has the innovation improve the general performance of the HQ?	1	2	3	4	5	6	7	-9

How has it improved the performance, (discussion)

The role of your unit.

To what extent has the representatives from your unit's different departments been engaged in the development of the innovation (knowledge transfer)? Mark 1=not at all, 7=very much, -9= don't know.

General management	Basic research	Development	Production	Marketing & sales	Purchasing	Service
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With regard to transfer, to what extent has knowledge regarding the innovation been useful for the following counterparts' activities? Mark 1=not at all, 7=very much, -9= don't know.

	General management	Basic research	Development	Production	Marketing & sales	Purchasing	Service
1							
2							
3							

With regard to transfer of the innovation, which was the level of use of the following communication media with other counterparts? 1=not at all, 7=very high, -9= don't know.

	Face to face meetings	Telephone	Documents, reports cdrom	e-mail exchange	Intranet	Extranet, edi, web exchange	Video conferences
1							
2							
3							

With regard to transfer of the innovation, please evaluate the following statements: 1=not at all, 4=neither/nor, 7= totally agree, -9=don't know.

You hesitate to transfer the innovation as you will loose your advantage within the MNE	1	2	3	4	5	6	7	-9
The counterpart hesitates to receive the innovations as it was not invented by the team	1	2	3	4	5	6	7	-9
The counterpart hesitates to receive the innovations as it was not invented by the team	1	2	3	4	5	6	7	-9
Technical difference makes transfer problematic	1	2	3	4	5	6	7	-9
Organizational difference makes transfer problematic	1	2	3	4	5	6	7	-9

With regard to transfer of the innovation, please evaluate the following statements: 1=not at all, 4=neither/nor, 7= totally agree, -9=don't know.

Lack of necessary resources within your unit to put in this specific relationship makes the transfer difficult	1	2	3	4	5	6	7	-9
Lack of necessary resources in the counterpart to put in this specific relationship makes the transfer difficult	1	2	3	4	5	6	7	-9
The innovation is difficult to use in the counterpart's business	1	2	3	4	5	6	7	-9
The counterpart's customers differs from your customers	1	2	3	4	5	6	7	-9

This counterpart is heavily involved in development activities with their counterparts	1	2	3	4	5	6	7	-9
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With regard to transfer of the innovation, please evaluate the following statements: 1=not at all, 4=neither/nor, 7= totally agree, -9=don't know.

	The HQ has formally instructed you to share this innovation with the other business area/ divisions		The HQ have themselves been heavily involved in conducting the actual transfer process with the other business area/divisions		The HQ have taken the complete responsibility for this transfer of this innovation other business area/divisions		Transfer of innovation has occurred without any sanctions by HQ with other business area/divisions	
	DivHQ	MNE HQ	DivHQ	MNE HQ	DivHQ	MNE HQ	DivHQ	MNE HQ
1								
2								
3								

With regard to the transfer of the innovation, to what extent is this driven by the following factors? Mark 1=not at all, 7=very much, -9= don't know.

Requirement from HQ	1	2	3	4	5	6	7	-9
HQ evaluation system	1	2	3	4	5	6	7	-9
Moving of personnel between your unit and the business area/division	1	2	3	4	5	6	7	-9
Existing routines of sharing knowledge with other business area/division	1	2	3	4	5	6	7	-9
Benefits to your own business from transfer of knowledge to other business area/division	1	2	3	4	5	6	7	-9
High dependence on other business area/division	1	2	3	4	5	6	7	-9
Geographical vicinity to the business area/division	1	2	3	4	5	6	7	-9