

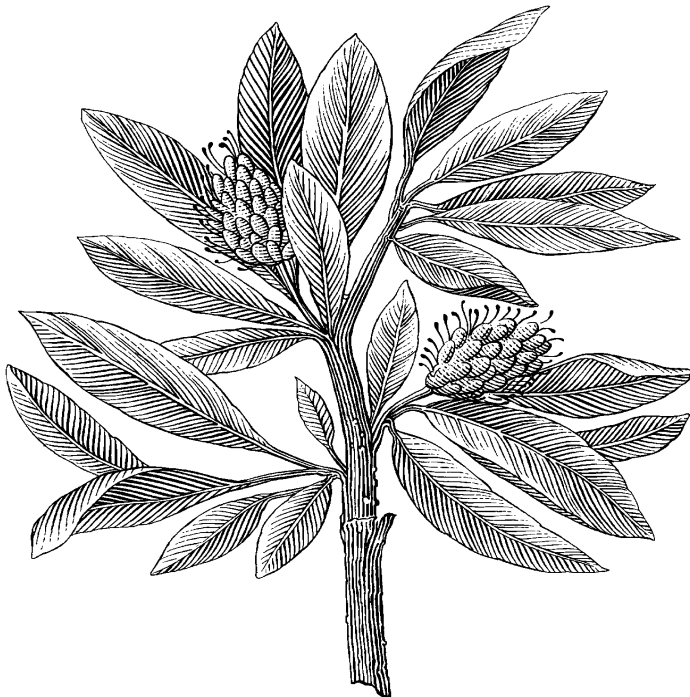


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Report

Knowledge Based Strategies in a Distant Market Context

The case of Lenovo acquiring IBM's PC unit



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Abbreviations:

AC: Absorptive capacity

DST: Daylight Saving Time

HP: Hewlett-Packard

IB: International Business

IBM: International Business Machines Corporation

IT: Information Technology

MNC: Multinational Corporation

MOC: Managers-on-charge

NIH: Not-invented-here

OE: Overseas Experience

PC: Personal Computer

PRK: Prior Related Knowledge

R&D: Research & Development

SECI: Socialization, Externalization, Combination, Internalization

USA: United States of America

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Executive summary

The following report is written for the management team of Lenovo to suggest the means for the successful transfer of International Business Machines (IBM) Personal Computer (PC) unit and its Research and Development (R&D) and production facilities as well as thousands of employees which were recently acquired by Lenovo.

The researchers have identified the gaps that were withholding Lenovo from becoming a strong global player and explained the elements to be transferred from IBM to Lenovo, as well as proposed relevant suggestions on how to seamlessly and successfully transfer the defined knowledge, resources and capabilities.

The report suggests that the main items to be transferred from IBM's PC unit to Lenovo are the following:

- Advanced technology and R&D activities
- Overseas experience

The barriers for a successful transfer of knowledge are related to internal aspects as well as aspects from a larger context. The internal aspects are broken down into both motivational and non-motivational factors, while the external aspects provide the contrast on the different types of culture, types of economy, hierarchy and organizational styles, network systems, cognitive complexity, diverse demographics, communication styles and language.

The design process provides specific suggestions that will allow Lenovo to deal with important matters that arose when observing the barriers for a successful transfer. The report suggests the management team of Lenovo takes the following aspects into consideration and reflects on implementing them in way such as: Carry out employee cross-exchanges between the units, offer various types of training schemes for employees such as language and cultural coaching, execute team-building events, develop the staff reward system, establish a "Help-unit", build online learning platforms, hire cultural specialists and internal gatekeepers to control knowledge flow inside the company, as well as increase Lenovo's R&D activities. Especial consideration should be offered to the latter as evidence shows that the lack of absorptive capacity is directly related to R&D expenditure.

Summarizing, it is pivotal to heed that the transfer process will be lengthy and ideal results will not come easily. This report provides specific guidelines that will yield a prosperous outcome.

Theoretical background

The report used theories withdrawn from several academic articles in order to support the arguments made by the research group. Hereby, the group aims to justify the use of certain theories whilst motivating the inactivity of other theories not used.

Hofstede's Cultural Dimensions-theory was used because his research is one of the most extensive cultural studies, conducted on 76 countries (Hofstede Centre, 2015). His research is also well recognized in academia. The main theories used in the report can be argued to be appropriate because they are all related to knowledge creation and transfer, organizational practices and absorptive capacity.

Szulanski's theory on internal stickiness (1996) helps understand the barriers and enablers of knowledge transfer. This relates to the transfer of knowledge from IBM to Lenovo, tackling both motivational and non-motivational barriers. One of the barriers was namely the lack of absorptive capacity; this is discussed in Cohen and Levinthal (1990). The research conducted by Audretsch and Thurik (2004) helped the researchers identify the different economies where the two companies operated in, and how the macro-environment affects the transfer. Moreover, Nonaka and Konno's (1998) SECI-model assists in examining the knowledge creation within a firm.

The report also referred to Sørberg's theory (2010) since the features of the PC industry have an effect on the complexity of knowledge transfer from IBM to Lenovo. To summarize the above, the research group has considered the elements which are found in Kostova's "Model of Success of the Transnational Transfer of Organizational Practices" (1999) as the report explores both the social and organizational context as well as the relational context.

The theories not used in the report were mainly due to two reasons: either the task did not give reason to apply their models or the short nature of the assignment did not allow further research. Organizational learning processes could have been expanded on a larger study by using articles by Crossan and Bedrow (2003) and Lawrence et al. (2005). The research group suggests that further studies should be conducted on the IBM-Lenovo case in regards to knowledge management by using theories from Grant (1996) and Gold, et al. (2001). This further research could help identify the ways of managing and institutionalizing the newly acquired knowledge. It would also be relevant to examine the new dynamic capabilities of Lenovo after the

knowledge has been successfully transferred, through the articles by Teece et al. (1997) and Easterby-Smith and Prieto (2008). This could lead to further analysis of marketing intelligence.

Introduction

With the world's economy and trade becoming more open and leveled as a whole, most national companies must pay close attention to more than local trends. Multinational Corporations (MNCs) have and will continue to enter new emerging markets while delivering immense competition to the local businesses; this macro trend is unavoidable (Forbes, 2013). Lenovo is a suitable example of a business that was pressed to globalize or risk remaining weak in a global context. Lenovo works in the technology sector; in 2004, this sector was dominated by strong competitors such as HP, Dell and IBM. As a result of the Chinese economy opening up, the mentioned competitors tapped into the vast Chinese market to take a slice of the profitable technology sector while directly hurting the local businesses such as Lenovo.

For this reason, Lenovo acquired IBM's Personal Computer (PC) unit on December 7th, 2004 and officially agreed on a deal that benefited both greatly (Bajarin, 2015). The knowledge transfer process will not be smooth given the vast differences in culture dimensions, business styles, labor market, legal system and language barriers, among others (The Hofstede Centre, 2015). The main objective of this report is to design an ideal model of transfer by analyzing the knowledge to be transferred, the actors, environment and other relevant factors.

Elements transferred from IBM

At the time of the acquisition, IBM's PC brand was the best known technology brand worldwide and held the most advanced technology in the PC industry (Zhou and Huang, 2014). IBM's global operational system was well recognized around the world, their distribution channels were highly efficient and their products sold in 160 countries worldwide. These aspects were enabled by centralized and global management as well as almost 100 years of experience as a company (IBM, 2015). Their advanced technology was developed in their highly-intelligent R&D centers in Japan and the US, and protected by thousands of patents and trademarks (Schmidt, 2010).

After the acquisition in late 2004, Lenovo got access to IBM's global supply chain, thus enabling them to take advantage of their sales and distribution channels (Zhou and Huang, 2014). Lenovo also obtained IBM's PC unit's intelligence property as a whole. This gave the company access to over 2000 international patents (Bell, 2008).

Additionally, Lenovo then became the employer of hundreds of IBM scientists and researchers specialized in PC product development. **Appendix 1** narrows down and briefly explains the elements transferred from IBM to Lenovo.

So what did IBM gain from the acquisition? Their PC business had been unprofitable for years: Thus, they were able to exploit the opportunity of vacating the “struggling business” (Schmidt, 2010) whilst simultaneously gaining profits through the deal. This was made possible as IBM received various licensing fees from Lenovo given that they were using the company’s sales and distributions channels (Hemerling et al., 2006 in Schmidt, 2010).

Lenovo Gaps

Before the acquisition, Lenovo lacked various resources and capabilities that were holding it back while putting it at risk, given that competition and markets have rapidly expanded worldwide. It is known that Lenovo had little successful business or management experience overseas (Ding, Akoorie and Pavlovich, 2009). In 2002, Lenovo unsuccessfully tried to access Spain with the QDI brand, yet it had to retrieve from it as the firm was losing ground in China and was not being successful in Spain either (Spooner, 2004). The lack of overseas experience (OE) has prevented the company from nurturing global logistics, supply chain operations and channels that may take several years to acquire properly (Lenovo, 2004).

Before 2004, Lenovo was the 9th largest PC producer in the world even though it hardly sold outside of China. Lenovo only possessed 2.2% of the Global PC market, but was the leading PC brand in China with a 27% market share (Tse and Conturier, 2009). In comparison with international competitors, Lenovo was considered a low-end computer manufacturer, with less than ideal customer specialist or support; thus, it also lacked a competitive advantage in the global PC industry. Many argue that Asian markets prefer Western brands over Asian brands (Doctoroff, 2012), this phenomena was hurting Lenovo’s business. Lenovo was known to perform little and feeble R&D compared to its global competitors as it only spent 1-2% of their revenues in R&D which is low compared to the 5-6% spent by their competitors (Bell, 2008).

In comparison to Western companies, Lenovo had a very Chinese-oriented organization and culture which is exemplified by low exploration with more exploitation. The

company's language was Mandarin and the majority of executives at Lenovo did not possess relevant or substantial Western experience either (Wharton University of Pennsylvania, 2015). All of these elements will be further discussed in this report.

All these gaps were crucial issues Lenovo had to deal with rapidly in order to remain competitive in a global context. Many foreign competitors entered the Chinese market once China opened its economy after being long protected by its Communist Government. Lenovo, among many other national firms, lost some Chinese market share to foreign competitors (Child and Rodrigues, 2005). This geopolitical trend was a pressing issue for Lenovo; thus, many believed that "Globalization is the only option for Lenovo" (Bloomberg, 2005).

Barriers for a Successful Transfer

For the acquisition to proceed smoothly, it is imperative to understand the problems, differences and complexity in two contexts. The first context, namely *Internal Context Barriers* will deconstruct and explain the items that are specific to the acquisition itself. The second context, namely *Larger Context Barriers*, will deconstruct and explain the elements in a larger perspective; the latter context explains how the external factors had an effect in this acquisition as well. Although Kostova (2009) goes in more detail and breaks the whole picture further into three contexts, namely *social, organizational and relational contexts*; the research group of this report finds it more realistic to keep it in the two following contexts.

Internal Context Barriers

The internal difficulties of knowledge transfer may also be referred to as *internal stickiness* (Szulanski, 1996); in order to transfer the best practices, firms usually follow four stages called the unfolding process; in this report, special attention will be given to the *implementation* and *ramp-up* stages; the unfolding process can be better visualized in **Appendix 2**. It is likely that some unexpected problems will occur when Lenovo starts to use the newly acquired knowledge. Various elements cause internal stickiness, which prevent a successful acquisition, those are discussed below.

1. Motivational factors

IBM employees might be reluctant to share valuable skills and information to Lenovo workers due to unwillingness of sacrificing time and efforts to nurture the transfer.

Secondly, IBM employees can be afraid to share information without decent reward or fear of losing predominant positions in the company. In addition, IBM, which is the source of knowledge, might be perceived as a reliable source by the Lenovo workers given the vast cultural differences.

The latter statement can be explained by how 'trust' is handled differently in the Chinese culture and the Western culture (De Cremer, 2015). In China, trust is hard to gain and is seen as a more time-consuming process than in USA: one needs to establish both personal trust as well as professional trust before business is conducted (Wang, 2010). The Chinese concept of *guanxi*, which refers to tight social networks that shape Chinese society, relates well to this scenario as there is lack of *guanxi* between the IBM and Lenovo employees, the latter being the recipients of knowledge. Additionally, a perceived motivational factor that is found in the recipient's end, namely the *not-invented-here* (NIH) syndrome, is mentioned by Hayes and Clark (1985) and Katz and Allen (1982) (in Szulanski, 1996). The NIH syndrome is known to cause low motivation to learn, fictitious acceptance, undercover destruction or purely a direct refusal to inherit the knowledge transferred.

Turnover is one of the main the issues that managers-on-charge (MOC) of this acquisition will encounter. It is important to consider that turnover will likely happen on both ends. For Lenovo employees and management, the presence of new foreign managers, different and new practices and expectations along with the new operations and standards will create organizational stress which can lead to turnover. On the other end, IBM's transferred employees and expatriates may not adjust to the new culture and co-workers as well as losing pride on their job given that they would be working for a new business and not IBM solely. These events are normal with such large transitions as there will be employees that are reluctant to change or cannot deal with managing change; Western managers quote this type of turnover as *cleaning house* (Bertrand and Blanck, 2013).

2. Non-motivational factors

As described by Szulanski in 1996, internal stickiness can also derive from non-personal barriers such as lack of absorptive capacity, causal ambiguity and an arduous relationship.

Cohen and Levinthal (1990) explain absorptive capacity (AC) thoroughly by bringing in both the individual and organizational dimensions, and argue that learning is cumulative

and path dependent. In regards to this acquisition, the large amount of high-technology and R&D knowledge will be difficult to transfer to Lenovo due to the fact that Lenovo does not have the sufficient level of AC in the technology field to immediately grasp the incoming new knowledge from IBM.

Facts show that Lenovo took longer than expected to close the deal with IBM; the Chinese company had to be able to fully understand the data they were provided with and to completely understand what they were buying. The mentioned shortcomings prevented an expedited process for the deal to consume (Schmidt, 2010). In fact, Lenovo had initially started looking into the deal in 2000, yet the acquisition was formalized only in late 2004 (Peng, 2008). This point indicates that Lenovo's prior related knowledge (PRK) of the specific technology and global markets was not advanced enough to make a prompt decision.

An important weakness found in Chinese firms when comparing them to MNCs from mature markets is the lack of adequate R&D activities, as well as limited OE (Warner et al., 2004, in Ding et al., 2009). Lenovo spent about 1-2% of their total revenues on R&D before the acquisition, which is considered very low for a high-technology firm; in comparison, IBM and HP spent around 5-6% (Bell, 2008).

The difference in expenditure for R&D indicates that Lenovo drags behind as it has not adequately invested to develop AC of the organization. Cohen and Levinthal (1990) explain that AC is directly related to R&D activities and is a result of R&D spending, thus AC's levels depend on capital allocated towards R&D specifically. Additionally, Lenovo had very low PRK in overseas operations such as overseas strategies, markets, sales and distribution channels as well as legal affairs (UC Berkeley Events, 2011) which also indicates low AC.

The low level of AC in Lenovo has nurtured internal stickiness. The existing internal stickiness will lead to increased costs in the later development of AC and a reactive approach to emerging opportunities (Cohen and Levinthal, 1990).

Lenovo's slow decision-making process in the acquisition deal and sluggish international reach and sales can be considered as factors which partly derive from the low previous investments in R&D. Additionally, as Sørberg (2010) argues, the R&D knowledge transfer is more challenging in industries with high technological development and complex transformation from exploration to exploitation. The PC

industry can be seen as an example of this, thus making the knowledge transfer more difficult to accomplish successfully.

Larger Context Barriers

In the previous chapter the research group mentions all elements that are specific to the acquisition itself; in this chapter the group will list and deconstruct all the items in a larger context that have influenced the actors and environment of this acquisition to better analyze and diagnose the problems that will rise up when attempting to integrate IBM PC unit into Lenovo's operations.

1. Distance

Szulanski (1996) mentions the existence of contextual sources of stickiness. An important contextual source of stickiness is the presence of an arduous relationship, which is detected between IBM and Lenovo given that the companies are located in different parts of the world; that is, the more distant the units, the more difficult the knowledge transfer. Also, the time difference between North Carolina and Beijing is 12 to 13 hours depending on the Daylight Saving Time (DST) (Time and Date AS, 2015); this time difference will make virtual communication difficult as the working hours for both ends do not match. Sjøberg (2010) argues that proximity is important for innovation and related activities. Kostova (2009) also mentions that a successful transfer of a practice from a parent company to a recipient unit is negatively impacted with distance.

2. Culture

Some of the largest problems in the PC unit acquisition rise from the wide cultural differences, both between the corporate cultures of the two companies as well as the country cultures of China and USA (Zhou and Huang, 2014). The mentioned wide differences can be seen in the management philosophy and the rich IB exposure and diversity found in IBM employees. Furthermore, the experiences of conducting business abroad varies between the two firms, with China having feeble knowledge of global operations outside its domestic market and Southeast Asia (UC Berkeley Events, 2011), while IBM has many decades of successful IB experience. Specific company characteristics for both ends can be visualized on [Appendix 3](#).

In order to better understand the country cultures of both China and the USA, it is useful to look at Hofstede's research. The latter conducted a broad study around the 1960s which examines different cultures according to several dimensions (Hofstede, 2015). A comparison between the two country cultures is presented in [Appendix 4](#). The largest

differences can be seen in regards to power distance, individualism, long-term orientation and indulgence.

The mentioned large national cultural differences will lead to problems in the knowledge transfer of this acquisition. The differences can “impede cooperation with different national identities” (Olie, 1994; Vaara, 2003, in Zhou and Huang, 2014, p.26), and thus create fundamental problems for integration and knowledge transfer. The national culture highly impacts the organizational culture of a company, as well as the behavior of individuals within a firm. Consequently, the two ends of this acquisition have to find a joint way to work together in order to reduce the risk of knowledge transfer failure.

3. Hierarchy and organizational style

The mentioned cultural differences and complexity presented affect the transfer of the IBM PC unit into Lenovo in a hierarchical and organizational level as well. Tacit, abstract and uncoded norms are more common in Lenovo’s organization and hierarchy as it is a Chinese business (Boisot and Child, 1999); on the other end, IBM is an American business which is known to have more codified, clear and explicit hierarchy with codified norms and guidelines. This clash of hierarchies’ styles creates an organizational cultural shock that needed to be dealt with for a successful acquisition.

4. Institutional culture

A large issue regarding the IBM PC acquisition is the fact that China and Lenovo have a clan-like institutional culture that is known to have diffused information in an uncoded manner (Boisot and Child, 1999). This type of institutional culture may exist so long as the numbers are kept low given that norms and mechanisms are not codified or standardized (Boisot and Child, 1999). This phenomenon is a main factor that differentiates the Chinese institutional cultures versus the Western ones. Specialization in a narrow field, such as R&D and manufacturing, is highly dependent on the successful transfer of explicit and tacit knowledge. Thus, this gap in institutional cultures should be paid close attention to.

5. The Network System

The Chinese network system presents a moderate degree of relational complexity, which speaks of having close-knit networks within local communities and low connection between Government and local authorities (Boisot and Child, 1999). Yet it is important to mention that Lenovo is largely owned by the Government, thus it can be

argued that Lenovo itself may have a lower degree of relational complexity given its ties with the Government.

6. Cognitive complexity

China ranks high in cognitive complexity given the uncertainty due to the lack of clear rights, a feeble pool of high quality workers, and a fragile labor market infrastructure. The Chinese product/service market presents arbitrariness due to the dependency of a non-transparent legal system on the state and the lack of clarity of laws and enforcement mechanisms (Boisot and Child, 1999).

7. Diverse demographics, communication and language

Lenovo's workforce, mainly consisting of Chinese natives, presents vastly rich and diverse demographics given China's many regions with large disparities in customs, languages, religions, authority figures as well as large gaps in generational differences (Boisot and Child, 1999). This richness in diversity on the recipient's end will impact the transfer as Western practices and routines tend to be standardized for one audience, very sharp and straightforward; the mentioned items leave little room for flexibility or time for adaptation. To exemplify, Americans speak freely and with little filters while in China freedom of speech is not fully developed yet. The employees at Lenovo will be tacitly required to speak their thoughts and express their feelings when working with the IBM expatriates. This communication barrier caused by different styles of speech on top of the language itself is one internal issue that must be carefully considered, especially as most of the IBM employees do not speak Chinese and the Lenovo employees have difficulties with the English language (Peng, 2008).

8. Type of economy

China presents all the traits of a managed economy that is slowly moving into an entrepreneurship economy (Lardy, 2002). As mentioned by Audrestch and Thurik (2004), a managed economy is dictated by the forces of large-scale; it focuses on continuity and not on change, predominance of large quantities of labor that are unskilled and the perception of entrepreneurship being a luxury. Lenovo operates in the technology sector, yet it is a manufacturing business as well, thus the traits of a managed economy do appear in Lenovo's organization likewise. It can be argued that the managed economy influence in Lenovo prevented it from becoming more entrepreneurial, focusing on obtaining highly skilled labor, nurturing and investing in innovation and R&D, creating healthy competitiveness and cooperation among its staff

and welcoming change. This managed economy influence in Lenovo is a set of factors that prove to be a burden in the technology sector (Audrestch and Thurik, 2004).

Design Process

The following chapter will address the problems diagnosed in the previous part of the report and identifies the relevant actions which need to be taken into consideration by Lenovo. In order for the knowledge to be transferred successfully, two larger factors need to be considered; those are creating a healthy transfer environment and the specific guidelines which foster the process of knowledge and R&D transfer. The aim is to come up with reasonable suggestions and arguments for further actions to be taken by the management team of Lenovo, a summarized guideline can be seen in [Appendix 5](#).

Design for creating a healthy transfer environment

The healthy transfer environment refers to a context where the knowledge can be transferred without major disruptions or failures. This is done by not only removing internal stickiness, but also by making sure that the cultural and country-specific aspects are also taken into account as they contrast heavily. For better visualization, a chart of country characteristics is presented in [Appendix 6](#).

1. Dealing with motivational factors

The barriers of knowledge transfer were described in the previous chapter. They consisted of both personal and knowledge-related barriers (Szulanski, 1996). The enablers, which aim to avoid internal stickiness and ease the knowledge transfer within IBM's PC unit and Lenovo, will be identified in the following part of the report.

It is crucial that Lenovo takes into account a satisfactory reward system for all employees; this is especially important for Western employees, who usually highly value monetary compensation. As an example, the MOC can create a profit percentage incentive that provides all involved employees with a bonus based on profit; this will motivate both ends to help everyone succeed together. Thus, a sufficient reward system would increase the employee's motivation to sacrifice time and effort to the transfer of knowledge. The mentioned reward system would also prevent the IBM employees from withholding important knowledge because of the lack of incentives. However, Szulanski (1996) states that it is not enough to use incentive systems in order to avoid internal stickiness. Although Lenovo has promised to keep the compensation schemes and welfare levels of the IBM employees after the shift to Lenovo (Peng, 2008), there

should be more action taken in order to secure a successful knowledge transfer. These actions will enable the transfer of both tacit and explicit knowledge within Lenovo after the acquisition.

2. Dealing with the complexity of learning

Lenovo should concentrate on paying more managerial attention in order to reduce internal stickiness. This could be done via the cross-exchange of managers from each side as recommended by Sjøberg (2010) as this is an industry characterized by complex transformation. The MOC should then aim to develop the learning capabilities of their units by creating organizational routines, practices and strategies which best foster the learning process (Cohen and Levinthal, 1990). The *learning curve* (Spencer, 1981) appropriately describes the way knowledge is learned; the longer and more time the employees spend on learning the new processes, the better will their performance become over time. Thus Lenovo needs to take into account that learning processes are usually lengthy and it takes time before adequate results start showing: patience is vital and of great use during the knowledge transfer process.

3. Dealing with the creation of consistent explicitness

It is crucial to take into account that the transfer of explicit knowledge is far easier than tacit knowledge (Åkerman, 2015). Explicit knowledge can be transferred through codification and different IT technology solutions such as online platforms and intranets. Tacit knowledge on the other hand needs to be mainly transferred through socialization and face-to-face interaction, such as regular team meetings, training days, team building exercises and social events. These social events could also act as a platform to create *guanxi* among the employees from both firms. The development of personal ties should initially lead to the situation where Chinese personnel will consider the IBM staff as reliable sources of knowledge since trust is closely related to *guanxi*. The social events also help the Chinese employees increase their indulgence level and thus feel more comfortable with leisure activities in their free-time. This has shown to increase work performance and improve productivity (Mokaya and Gitari, 2012). Examples of social events to unify both ends will be discussed below.

For the MOC to achieve consistent explicitness, they may consider utilizing the SECI model. As explained by Nonaka and Konno (1998), *Socialization* via a strong physical presence of IBM's expatriates is highly recommended to transfer the R&D tacit knowledge to Lenovo's staff. Expats also help to avoid internal stickiness (Szulanski,

1996). Thus, it is suggested to favor originating 'Ba' and remain away from Cyber 'Ba' as scarce interface may magnify the already tall barriers of communication (Nonaka and Konno, 1998). The MOC should then gather the findings and move into the *Externalization* phase by forming small groups in which all tacit knowledge collected will be combined to start giving it consistent explicitness. Lastly, with time and proper supervision, the explicit knowledge specific to this alliance such as created tools, forms, guidelines and best practices will slowly start turning into channeled tacit knowledge, also known as *second nature* which applies to having an acquired deeply ingrained habit or skill. When the latter is achieved, the new alliance would have created a culture of its own; this last step is labeled as Internalization according to the SECI model.

4. Dealing with forecasted turnover

In regards to turnover that will most likely result from this deal, it is suggested that the MOC of this deal acts proactively by preparing the staff on both ends for the cultural shock to be encountered. There are solid steps and actions to be taken, such as offering lessons and workshops on how to deal with the other culture and how to deal with change, stressful situations and environments. Also, as previously mentioned, the firm should create a robust reward system that would deal with the 'what is in it for me?' mentality that is typical for Western employees, and build a management team that will solely focus on dealing with integration activities. The mentioned steps and actions to be taken by the MOC should be done on both ends while tailoring them for each.

Lenovo should also focus on promoting close relationships between units (Szulanski, 1996) so that the knowledge is able to flow freely; as mentioned previously, by arranging regular team meetings with members from different organizational units, holding team-building days and enabling direct approach from one unit to the other. As previously mentioned, leisure activities outside work increase performance and enhance efficiency (Mokaya and Gitari, 2012). Social events outside the workplace should be introduced, such as weekend trips, happy hours and sporting activities.

5. Dealing with communication and language barriers

As mentioned previously, Lenovo's workforce mainly consists of Chinese population which is vastly rich and diverse. In other words, Lenovo's workforce is not only quite different from IBM's, but diverse on its own. Styles of communication and language barriers must be dealt with proactively to prevent frustration; it is therefore suggested that MOC prepare both ends in how to communicate with the other culture efficiently.

MOC should hire consultants or cultural experts that specialize in preparing teams to work in cross-cultural environments, regarding China and USA specifically. This is a simple yet powerful action, thus a wise investment. Additionally, English language training should be introduced to the Chinese staff members.

There should be a systematic way to transfer the knowledge in order to maintain control whilst ensuring the efficient flow of communication. This should be done via online learning platforms, virtual notice boards available for all, ongoing support and a small unit responsible for answering the employee's concerns and questions in regards to the new situation after the acquisition.

6. Dealing with other cultural dimensions

It was previously mentioned that the two country cultures of China and USA differ in aspects such as individualism and collectivism. Reflecting on this, Lenovo's management should establish a corporate rule that no family members of employees should be hired. Whilst this may cause a minor barrier to hiring "the best in the field", it also enables fair and equal treatment on hiring policies. This rule is to avoid Chinese employees hiring relatives over other candidates, which is likely to happen in a collectivistic culture (Hofstede, 2015), and also prevent what the Westerners coin as "misuse of *guanxi*".

7. Dealing with institutional cultural differences

According to the *I-Space model* provided by Boisot and Child (1999), Lenovo has a clan-like institutional culture. It is suggested that Lenovo adapts to certain dimensions of a market-like institutional culture that characterizes IBM such as making information and skills widely diffused while creating a lesser need or room for personal beliefs and values. By adapting to these certain dimensions of a market-like institutional culture, Lenovo will gain a more streamlined, consistent and specialized institutional culture. The adaptation to the listed dimensions of the market-like institutional culture was previously explained in this chapter using the SECI model.

8. Dealing with context complexity

Kostova (1999) mentions that a successful transfer depends on the degree of compatibility of the recipient and source, thus special attention is given to dealing with reducing complexity. According to Boisot and Child (1999), complexity reduction is the best strategy to use for this specific deal. As mentioned previously, China is

complex and so are its organizations. The high cognitive complexity could be dealt by bringing IBM's global operations and standards into Lenovo's framework. It is just to say that IBM's experience and PRK in the field of technology and resilience in challenging times is a good model to follow and replicate. To directly defy the cognitive complexity, the MOC of this acquisition should foster and acquire a rich pool of high quality workers that are experienced in dealing with ambiguity and change. At the same time, the MOC should provide this high profile pool with a solid and clear job description, expectations and requirements. By doing so, the IBM employees' fear of losing predominant positions could be reduced as there will be little room for ambiguity.

Moreover, the MOC of this deal must make a conscious effort on creating a more codified and consistent structure and environment, in this case, Lenovo and its staff should adapt to the Western style. This is suggested as both ends will benefit from a more clear structure and it would take too long or be too frustrating for IBM employees to adapt to an uncoded and abstract organization and hierarchy, while it will be easier and less painful for Lenovo employees to adapt to a more clear and concrete organization and hierarchy. The change also relates back to the long-term orientation of the Chinese culture, as the Chinese show "an ability to adapt traditions easily to changed conditions" (Hofstede Centre, 2015). The adaptation to a clear organizational structure will also help overcome the differences in the cultural dimension of power-distance between the two country cultures of China and USA. Thus, it is also necessary to decrease the need or room for personal beliefs and values while diffusing concrete knowledge in means to achieve consistent explicitness for both ends.

9. Dealing with the NIH-syndrome

As previously discussed in the problem-analysis, the NIH-syndrome can occur in units who act as recipients of knowledge. It is thus suggested that the MOC take time into assessing the cultural challenges and problems the units face by creating an innovative and open atmosphere in the workplace. The MOC should contemplate the areas in which both parties are good at and implement an integrative approach to the problem. It is suggested that the units team up to form groups and discussion panels where ideas can be freely expressed and a consensus is ideally reached. These events would consequently lead to shared goals which will unite the employees in order to reach a

common objective. Also, creative workshops should be introduced in order to help employees work with each other, and not against each other.

10. Dealing with different types of economy

Audretsch and Thurik (2004), presents a table in which fourteen dimensions is presented, see **Appendix 7**. The four most relevant dimensions and the suggested actions are: The MOC should focus on enriching jobs while increasing wages to attract highly skilled workforce. The MOC should consider increasing the levels of diversity by hiring talent from other countries and cultures in means to foster diversity to increase AC and create a multicultural environment. The MOC should focus more on motivating versus controlling, in other words the MOC should act as leaders by being open to suggestions and appreciating everyone's input versus having a 'do as you are told' attitude. Lastly, MOC should focus on facilitating and providing the staff with the tools, resources and freedom to express themselves and their ideas via quality work versus asking to do as much as possible with the least resources possible which is a managed economy characteristic. As Kostova (1999) mentions, a successful transfer is positively impacted if the organizational culture is supportive of learning, change and innovation.

Design to transfer the specific R&D knowledge

Since the suggestions stated above are related to not only the transfer of R&D knowledge, but can also be applied to other similar knowledge transfers, it is also essential to identify how the R&D knowledge specifically can be transferred in a more detailed manner. The researchers of this report argue that by increasing R&D expenditure, the AC of Lenovo can be increased; causing the transfer of R&D related knowledge to shift smoother.

1. Dealing with R&D transfer

As the problem diagnosis revealed, one of the main sources of internal stickiness in the acquisition was the lack of AC in Lenovo. Since AC is an intangible resource and its benefits are seen as indirect, it may be challenging to reinforce it. Cohen and Levinthal (1990) argue that in order to increase the AC of an organization, the company should invest in their internal R&D activities and "devote resources to innovative activities". This statement is supported by the authors' research, noting that a firm's investment in R&D is directly related to its AC. R&D activities thus create innovation and ease learning processes; Lenovo should aim to enhance its R&D spending by increasing it

from the level of 1-2% to 5-6%, which is the industry's standard. This would give the R&D units better conditions to develop their knowledge and consequently, transfer and pass it down to other units at Lenovo. Moreover, AC should not be seen as a byproduct since it is evident that Lenovo needs to focus on improving AC and sacrifice resources in order to do so. A clear picture of the links between R&D and AC is presented **Appendix 8**.

The technical staff from IBM should contribute positively to the current lack of AC and help Lenovo acquire and understand knowledge from external sources such as competitor's knowledge spillovers (Cohen and Levinthal, 1990). Lenovo should dedicate personnel to control the internal knowledge flow, who would then act as internal *gatekeepers* to increase absorptive capacity; they would observe the company environment and control the internal knowledge flow. This would be done through specialized staff who would help the knowledge transfer after the acquisition by monitoring and reporting, as well as identifying the relevant knowledge for the different units to acquire. It would be important to have two kinds of *gatekeepers*: ones with broad knowledge who can link different fields of knowledge and others with in-depth knowledge who have more expertise in specific areas rather than the "big picture" (Åkerman, 2015). As previously mentioned, creative workshops and discussion panels should be used at the workplace. In addition to the methods mentioned above, the AC of Lenovo could be increased through a "stepwise increase in task difficulty" (Åkerman, 2015). This speaks about increasing the complexity of the Lenovo employees gradually: they would first start with easier jobs and then move onto more difficult tasks once their AC begins to increase.

Conclusion

The focus of this report was to pinpoint what is being transferred in this acquisition as well as delivering a detailed design on how to properly conduct it. After understanding, researching and analyzing all aspects and factors of this acquisition in an internal and larger context, it is fair to say that the cultural difference and internal stickiness are the main influential factors. Thus, special attention has been given to 'creating a healthy environment for the transfer' more than the 'transferring of R&D' itself as it is the research groups' strong belief that when the setting is right the PC unit acquisition along with the transfer of items in this new alliance will occur seamlessly.

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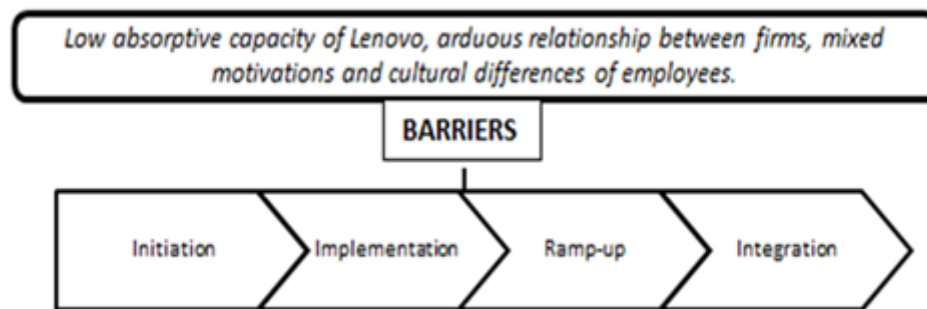
Appendices

Appendix 1. Elements Transferred from IBM

THE RESOURCES AND CAPABILITIES OF IBM	
The IBM-brand	The IBM brand, especially the ThinkPad-series, was known world-wide as high-quality and innovative.
Advanced technology and R&D	IBM's advanced technology and R&D were gained through years of experience in the industry and hundreds of specialized researchers.
Global operational system	The operational system was seen as the most efficient in the PC industry.
Wide sales channels	IBM sold their products in 160+ countries and had staff in 100 countries.
Efficient distribution channels	IBM distribution channels were seen as cost-effective and widely spread.
Managerial knowledge	The managerial knowledge was high in terms of overseas operations such as managing international teams, sales channels and legal affairs.

Sources: Zhou and Huang, 2014; IBM, 2015; Schmidt, 2010; Bell, 2008.

Appendix 2. The Unfolding Process



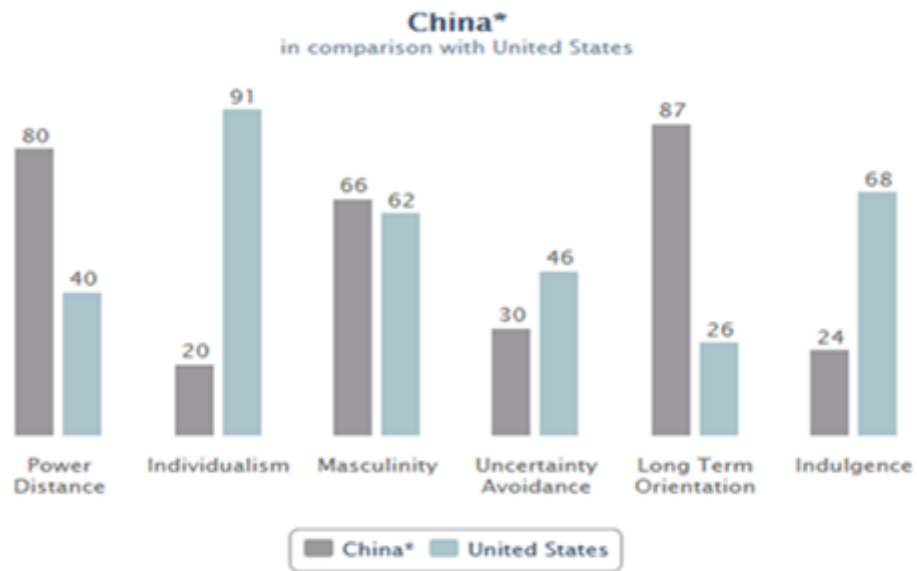
Own image. Source: Szulanski, 1996.

Appendix 3. Company Characteristics

Characteristic	Lenovo	IBM
Country and year of incorporation ¹	China (1984)	USA (1911)
Operational age before acquisition	20	93
Market value at DoA ²	46,009,788*	513,279,155**
Employees	Appx. 9,600	Appx. 10,000 (PCD)
Rank of Fortune at DoA ³	NA	19 th
Rank of worldwide PC seller ⁴	9 (2% market share)	3 (5.2% market share)
Key characteristics ⁵	<ul style="list-style-type: none"> • Top and most recognized IT brand in China • Major customers are Chinese personal consumer and SMEs • Products: Desktop (82%) and notebook (18%) • Efficient operational platform and extensive retail network 	<ul style="list-style-type: none"> • Premium Global PC Brand • Major customers are worldwide large and medium enterprises • Products: Desktop (40%) and notebook (60%) • Global network in sales, financing, and service support

Source: Zhou and Huang, 2014.

Appendix 4. Hofstede's Comparison



Source: Hofstede Centre, 2015

Appendix 5. Actions Recommended

ACTIONS	Additional info
Language training	Especially English for Chinese employees
Managerial and employee cross-exchanges	Rotating employees from IBM PC unit to Lenovo and vice-versa
Team building and a special team responsible for these activities	Special days for team building, meetings held with representatives from different organizational units, direct communication between units
Online learning platforms	Virtual learning and intranets
Virtual noticeboards	Information is available for everyone
"Help"-unit	To address the employees' concerns, questions and offer support after the acquisition
Cultural lessons and workshops	To deal with culture shock and stress
Cultural consultants/experts	Assist teams to work in cross-cultural environments
Develop reward system further	Increase motivation
Adaptation to market-like institutional culture	Clear organizational structure, less need for personal beliefs
Acquire highly skilled workforce with experience in dealing with change and uncertainty	With clear job tasks, expectations and requirements
Training days in small groups	Training through social activities
Create clear guidelines which apply to all units	Clear job descriptions, "no family member" hire policy
Increase internal R&D activities	By increasing R&D spending and attention to developing it
Creative workshops	To encourage employee creativity and create new ideas
Hire "gatekeepers"	Control knowledge flows in and out of the firm
Gradual increase in task difficulty	
Discussion panels	To discuss and evaluate shared goals
Use of expats	
Social events	Events outside work to build relationships and trust

Appendix 6. Country Characteristics

CHINA	USA
Culture (Hofstede)	
<ul style="list-style-type: none">• High power-distance• Collectivistic• Masculine• Long-term oriented• Low uncertainty avoidance• Low indulgence level	<ul style="list-style-type: none">• Lower power distance• Individualistic• Masculine• Short-term Oriented• Low uncertainty avoidance• High indulgence level
Country features	
<ul style="list-style-type: none">• Cheaper labor force• Afraid to “lose face”• Guanxi• Trust has to be earned• Indirect way of communicating	<ul style="list-style-type: none">• Diverse and flexible labor force• Risk taking• Monetary orientated• Direct way of communication
Legal system	
<ul style="list-style-type: none">• Fairly developed• Lacks enforcement mechanisms	<ul style="list-style-type: none">• Well established• Binding• Adaptive

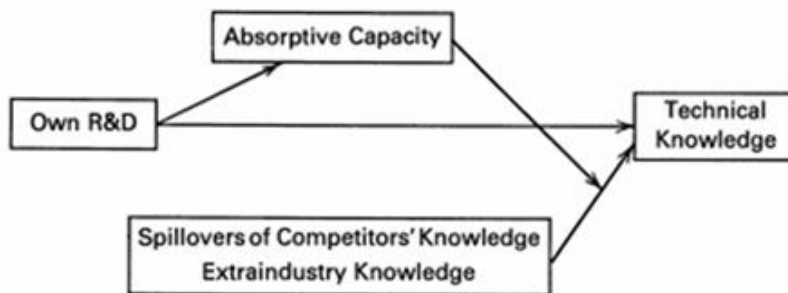
Sources: Hofstede Centre, 2015; Jiaxing and Yangon, 2015; Upton-McLaughlin, 2013; Hope, 2014; Wang, 2010; Child and Rodrigues, 2005; Lenovo, 2015; IBM, 2015; Chin and Areddy, 2014; Burns, Barton and Kerby, 2012; Business Environment Rankings, 2014; Leveraged Management Services, 2004; Rui and Yip, 2008.

Appendix 7. Managed and Entrepreneurial Economy Dimensions

Category	Entrepreneurial economy	Managed economy
Underlying forces	Localization Change Jobs <u>and</u> high wages	Globalization Continuity Jobs <u>or</u> high wages
External environment	Turbulence Diversity Heterogeneity	Stability Specialization Homogeneity
How firms function	Motivation Market exchange Competition <u>and</u> cooperation Flexibility	Control Firm transaction Competition <u>or</u> cooperation Scale
Government policy	Enabling Input targeting Local locus Entrepreneurial	Constraining Output targeting National locus Incumbent

Source: Audrestch and Thurik, 2004.

Appendix 8. Link between R&D and AC



Source: Cohen and Levinthal, 1990.