

# **HRM practices and international technology transfers (ITT) in the M&A context:**

A case study of the ITT between a Chinese medical  
enterprise and a Dutch company



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# Table of Content

Executive Summary .....	1
1. Introduction .....	2
2. Literature Review .....	5
2.1 Cross-border mergers and acquisitions and ITT.....	5
2.1.1 International technology transfers (ITT) .....	5
2.1.2 Uneven technologies distribution and cross-border mergers and acquisitions.....	8
2.2 Human resource management (HRM) practices .....	9
2.2.1 Staffing .....	11
2.2.2 Training .....	13
2.2.3. Performance-related rewards.....	16
2.2.4. Project-based HRM .....	20
2.2.5. Human Resource Management (HRM) practices in ITT process .....	21
2.3 The cultural and organizational factors in ITT .....	23
2.3.1 Cultural factors in ITT.....	23
2.3.2 Organizational factors in ITT .....	25
3. Research Direction and Research Methods.....	27
3.1 Research objective.....	27
3.2 Research question.....	27
3.3 Conceptual model.....	28
3.4 Research method .....	29
3.4.1 Single case study .....	29
3.4.2 Data collection methods .....	30
3.5 The case study introduction.....	31
3.5.1 Background introduction .....	31
3.5.2 Interviewing in this case .....	33
4. Results .....	37
4.1 The difficulties/challenges of the performance for the ITT.....	37
4.2 The criteria of the performance for the ITT .....	38
4.3 HRM practices in this ITT project.....	39
4.4 The cultural and organizational factors .....	46
4.5 The effects of HRM practices on the ITT performance .....	48

5. Discussion .....	54
6. Practical Implications .....	56
7. Limitations and Future Research.....	59
8. Conclusion.....	61
Reference.....	62
Appendix 1: Interview Questions for Project Managers .....	75
Appendix 2: Interview Questions for Employees.....	77

## Executive Summary

In the business world, international mergers and acquisitions (M&A) are often adopted. To localize technology afterward, international technology transfers (ITTs) are often carried out. Human Resource Management (HRM) practices can help the technology transfer process achieve better performance. However, human resource interactions within organizations are complex, and a generic definition of HRM can lead to inconclusive results. How human resource activities are implemented in organizations and how they function in ITT have to be emphasized and realized in detail.

Utilizing a case study of ITT between a Chinese company and an acquired Dutch medical company, this thesis analyzes the role of three HRM practices: staffing, performance-related rewards, and training in ITT. Thus, bringing clarity on how more specific features within HRM can be utilized to improve an ITT performance. The case study also defines criteria for the ITT process and establishes the difficulties in an ITT process and the implementation of HRM practices. Then it analyzes the role of HRM practices in ITT.

Based on the contingency theorists, the assessment clearly addressed the use of HRM practices aligned with the business strategies. The research agrees that it is crucial to acknowledge the situation of the business context, which requires consideration of industry, organizational structure, resources, etc. Interviews are used to collect data. The details of implementing the HRM practices within the organizations are also introduced. The criteria for the ITT are defined. The connections between HRM practices and the performance of ITT are built. Then models are proposed for the effects of training, performance-related rewards, and staffing on successful ITT. The models are disassembled into details.

In the studied case, the use of the HRM practices can benefit ITT performance by benefiting collaboration and communication between two organizations, transfer of tacit knowledge, and technology integration with local industries. The influence of training is the most recognized among the three HRM practices. Hard skills training is considerably more efficient than soft skills training with acquiring tacit knowledge. Recruiting and training can also help organizations gain abilities outside the organizations. Internal mobility helps transfer tacit knowledge and experience from the technology-giving side. The influence of rewards is relatively small. In the organizations studied, intrinsic rewards influence more the motivations of employees than extrinsic rewards. Cultural and organizational factors can significantly affect the implementation of HRM practices and the influence HRM practices had on ITT.

# 1. Introduction

Mergers and Acquisitions (M&A) is a strategy employed by companies to stay relevant in the rapidly changing industry by maintaining their technical prowess and competitive spirit (Fixson et al., 2017. Rossi et al., 2019). While much research exists on domestic M&As (M&As occurring in the same country), due to massive globalization new research is being done into the new and unexplored area of Cross-border M&As (Kiessling et al., 2021).

Cross-border mergers and acquisitions (M&A) are defined as “The corporate action of purchasing the shares or assets of another company in a foreign country (Changqi et al., 2010). Cross-border mergers and acquisitions (M&A) are prevalent in the context of globalization (Gu & Meng, 2021) as a popular strategy and an important alternative to internationalized strategic expansion for companies (Shimizu et al., 2004).

After cross-border mergers and acquisitions, to obtain knowledge resources, the technology transfer process is introduced. The technology transfer process is an investment in technology acquisition. After the completion of M&A or technology purchases, the acquirer hope aims to localize the acquired firm's technologies to allow for greater indigenous management autonomy in companies (Gu & Meng, 2021).

M&A and incoming technology transfer activities can be an effective way to increase competitiveness, especially for enterprises in developing countries. Technology transfer (TT) is a process that leads to the absorption and dissemination of technologies, equipment, resources, products (Kumar et al., 1999), and knowledge (Takahashi, 2005). This is an effective means for companies to obtain certain technical resources and develop internationally.

However, the process of technology transferring often faces frequent and well-documented poor performance outcomes and high failure rates (Rottig, 2011). Technology is never easily transferred from one organization to another. This is further complicated when two companies are located in different countries. Factors, such as changes in firm structure, the complexity of firm composition, and cultural differences (Shimizu et al.,2004) further complicate the problem. For this reason, this kind of transnational technology transfer between two geographically separated entities is treated differently than a normal technology transfer and is termed an international technology transfer (ITT).

Human Resource Management (HRM) has always worked to enable the human capital resources within organizations to contribute to strategic business goals more efficiently and to increase the personal satisfaction of employees (Cascio, 2015). Fair

implementation of HRM has been proven to be an integral component in ITT activities because human capital activities have significant effects on the performance of technology transfer (Ng et al., 2012). This is fairly intuitive as both technology acquisition and technology integration require the participation of human resources. In the ITT process, specific HRM must be in place to handle both personnel from partner organizations (implanted) and employees assigned to partner organizations (Miah & Wali, 2012). Reasonable human resource incentives (tools) will increase the ability of organizations in acquiring and integrating new technologies, promote bilateral communication, and improve the efficiency of technology transfer.

Enterprise HRM activities can include recruitment, training, organizational culture, cost management, organizational development, etc. However, there exists limited research into the influence of these HRM practices in the context of technology transfer. Generally, people assume those are all beneficial to organizations' activities, but how those HRM components can be beneficial in the process of successful ITT is not very clear. Therefore, the research question of the thesis is:

*How can HRM practices facilitate ITT, in the context of M&A?*

The research method is a single case study based on the ITT between a Chinese medical company and a Dutch medical company. HRM and ITT activities may vary in different cultural and organizational contexts. Due to the limitation of research time, this thesis will mainly focus on special cases under certain backgrounds. It will investigate the role of HRM practices in the ITT when enterprises from a typical developing country (China) acquired enterprises from EU developed countries (NL). In this case, the technology-receiving side (China) and the technology-giving side (NL) set up a technology transfer project team. More specifically the research focuses on HRM practices related to staffing, training, and performance-related rewards. Training, performance-related rewards, and selective staffing are among the frequently cited practices (Obeidat et al., 2016; Raineri, 2017). In this case study, these three are also the most obvious HRM practices applied, other HRM practices such as career opportunities are not very suitable for this case study because the organization has not been established for a long time. Overall, these three HRM practices are assumed to be the most investigable HRM practices in this case study.

The HRM practices in projects are often different from those in a single organization. Sometimes the HRM practices work in a unilateral organization, but they can also interact with both organizations at the same time.

As the master's thesis, this topic is highly connected to the program management of technology. It discusses how to better manage the technology transfer process in an enterprise under the common background of the business world: M&A. It proposed how to make better use of technology as a corporate resource, therefore, achieving

higher performance.

The remainder of the report is divided into 6 more chapters. Chapter 2 provides background information about this topic in the form of a literature review. Desk research is made for the concepts of ITT and the background of cross-border mergers and acquisitions. Then HRM practices are introduced, including staffing, training, performance-related rewards, and project-based HRM. The connections between HRM practices and ITT are also defined in this chapter. In Chapter 3, the research methodologies are introduced. First, it gives a simple conceptual model and then proposes the single case study as the research method and the interviews used to collect data. The results of the interviews are given in chapter 4. Then the discussion is presented in chapter 5. Practical implications are discussed in chapter 6, followed by limitations and future research in chapter 7. Following this, it provides a conclusion.

## 2. Literature Review

### 2.1 Cross-border mergers and acquisitions and ITT

#### 2.1.1 International technology transfer (ITT)

International technology transfers (ITTs) are "the process by which technology suppliers communicate and transmit technology across national borders to recipients through a variety of activities" (Nahar et al., 2006: 664). ITT was characterized by Maskus (2004) as a tool for the distribution of information effectively across national borders. Gaining new knowledge through ITT requires less time and money than producing it through a company's own R&D (Ciborowski & Skrodzka, 2019).

However, the ITT process is not always easy. According to Kumar et al. (1999), the technology consists of two main components:

1) The physical component: It consists of items such as products, tools, equipment, blueprints, techniques, and processes.

2) The information component: it includes these abilities such as management, marketing, production, quality control, reliability expertise, and functional areas such as skilled labor, etc.

Bozeman (2000) considered that technology and knowledge are inseparable. Because when a technological product is transferred or disseminated, the knowledge that helps build it should also be transferred. Without an innate or auxiliary knowledge base, organizations cannot employ physical entities on their own. Li-Hua (2006) studied the effectiveness of technology transfer in China and showed that technology transfer could not be carried out without knowledge transfer since knowledge is the key to developing and controlling technology. In order to learn technology, one must first take in the transferred knowledge and then internalize it.

However, technology or knowledge within an organization is usually in form of "tacit knowledge", and can be regarded as a company's "intangible asset" (Radosevic, 1999). Technology is rooted in the daily affairs of enterprises. Tacit knowledge, differing from explicit knowledge, is formed in the human mind as unique know-how. It is a tremendous repository of knowledge that is unspoken, unwritten, and concealed from view. It is gained as a result of individuals' direct interactions with others within the organization (Mohajan, 2016). The flow of technological information includes a significant amount of practical knowledge and experience. They are essential for the implementation and application of new technologies (Ciborowski & Skrodzka, 2019). Lin (2003) proposes that it will never be simple to transfer important technological



knowledge from one organization to another.

Technology transfer is a complex process involving the complexity of the technology, the teaching ability of the owner, the learning ability of the acquirer, and the complex interaction of both parties (Lee et al., 2010). It is also a collaborative process in which all parties involved have a decisive influence on the outcome. The following aspects often influence the process of a technology transfer:

1) The nature and intensity of the technology transfer process for a given firm are inextricably linked to the firm's area of concentration (the distance). The kind of transfer, the kind of contractual agreements, the kind of learning procedures, and the managerial practices necessary are largely determined by the distance (Amesse & Cohendet, 2001).

2) The abilities of acquires to absorb technology has a significant impact on the ITT process' quality (Amesse & Cohendet, 2001). According to Zahra & George (2002), absorptive capacity includes not only the transfer of knowledge but also the learning process of technical knowledge that is continuously absorbed by the human capital of the firm. A company may successfully absorb external knowledge but may run into issues utilizing the absorbed knowledge.

3) The firms' abilities to emit information outside of their frontier fundamentally impact the quality of the technology transfer process (Amesse & Cohendet, 2001).

4) The knowledge bases and organizations between the two parties will influence the technology transfer (Amesse & Cohendet, 2001). When the two parties have different knowledge and organizational bases, the ITT process might encounter difficulties.

5) Diverse environmental conditions. Al-Thawwad (2008) also stated that culture, language barriers physical environment, policy, and geographic location would all have a significant impact on technology transfer, and thus poses greater challenges than the domestic context (Cui et al., 2006).

6)The geographical distance between buyers and sellers will influence the absorption of technology (Amesse & Cohendet, 2001).

A lot of aspects need to be considered to improve the performance of technology transfer. The measurement of ITT is of considerable importance in many areas of management research. A high-performance technology transfer not only requires the successful acquisition of technology but also the integration to adopt the local market. Performance, however, is a complex construct; there isn't just one component that encompasses all the various ways it is proxied (Zollo & Meier, 2008). Sufficient interactions are required between two parties to ensure the technology is fully

understood. Other intangible components, like infrastructure and organizational culture, are also necessary to provide the necessary support (Lin et al. 2002). Organizations should devote more resources to building up local technological capabilities and acquiring foreign technologies. To reach a good performance in technology transfer, strategic decisions such as the allocation of resources for obtaining foreign technology and growing technological aptitude internally should receive comprehensive analysis (McDonald & Leahey, 1985). Licensing has a role in technology strategic planning (McDonald & Leahey, 1985).

ITT project-related technological competence can be observed from two aspects (Yin, 1992):

- 1) the level of absorption of the technology transferred.
- 2) the level of diffusion of the technology.

The two processes comprise a whole technology transfer. Reddy & Zhoa (1990) believed that successful technology transfer should enable the receiving company to absorb the technology and use it with the required quality standards and cost-effectiveness. The degree to which the recipients comprehend, master, and adopt the imported technology with certain adjustments is referred to as their level of absorption (Stewart, 1979); The more the technology is absorbed, the more the ITT project can increase in the recipient's technological competence. The degree to which the imported technology is incorporated into pertinent industrial processes and applications is referred to as the level of diffusion (Sahal, 1981). During the diffusion process, the technology may undergo significant alteration or even redesign. More dispersion denotes a greater degree of localization of foreign technology and a greater contribution to regional technological proficiency.

Günsel (2015) argued that the transfer of purely technological knowledge does not guarantee its effective absorption. The favorable effects of technology transfer on the innovation performance of technology-receiving economies would be diminished by isolated technological knowledge. Despite the so-called industrial production capability, this process also heavily relies on one's power to build, change, and adapt technology (Radosevic, 1999).

The hot topics dealing with international technology transfer are from several points of view: knowledge management, finance, management theory and practice, social web knowledge sharing, open innovation framework, business process management, and the Quadruple Helix model (Del Giudice et al., 2017). Technology transfer processes are influenced by external factors such as political regulation (Desa, 2012) or economic uncertainty, as well as internal ones such as IP management (Hall & Helmers, 2010), human resource management (HRM) practices (Liu & Vrontis,

2017), quality practice, and management commitment (Nguyen & Aoyama, 2014).

## **2.1.2 Uneven technologies distribution and cross-border mergers and acquisitions**

Cross-border mergers and acquisitions (M&A) is a business model that is often used when a company needs to introduce international technology transfer. For many reasons, technology is not equally dispersed throughout all nations and regions (Teece, 1981). In this context, international M&A is common. There are differences between the words “merger” and “acquisition”. Koi-Akrofi (2016) stated, "Mergers are different from acquisitions in that it is considered that two firms involved in a merger have nearly equal resources or size, while an "acquisition" refers to the situation that one of the two is significantly smaller." In this research, the definitions between two words will not be distinguished and both referred as M&A.

Cross-border M&A not only offers a tool for quick international expansion but is also a productive means for businesses to obtain new ideas and technology (Shimizu et al., 2004). A key driving force behind the purchase may be businesses' desire to acquire intellectual property or technological assets (Campi et al., 2019). Regardless of the technology, accessibility usually has an impact on cross-border M&A decisions (Campi et al., 2019).

Recently, there has been a larger increase in M&A in developing countries than in developed countries. Developing countries have increasing demands for advanced technologies to have competition for knowledge-intensive activities (Nepelski & De Prato, 2015). They have vigorously promoted cross-border M&A due to a lack of certain technologies. Developing countries such as China have strong imitation capabilities (Yin, 1992). M&A in this context can provide developing countries with significant opportunities for economic growth by filling technological gaps. ITT also benefits the acquired sides, Hansen & Gwozdz (2015) and Nahar et al. (2006) clarified that a successful international technology transfer can bring advantages to both sides of the company and even the country in which those companies are based.

More and more companies are investing in R&D-related activities abroad to build a new competitive advantage by discovering, accessing, mobilizing, and leveraging knowledge (Doz et al., 2001). Mergers and acquisitions are important in the division of labor between science-based firms (targets) and large and established firms (acquirers) (Granstrand & Sjölander, 1990). The innovation capabilities of smaller organizations are anticipated to be successfully transferred to larger acquiring firms through acquisitions. These firms are better able to capitalize on these innovations because of complementary assets such as product testing or product

marketing capabilities (Teece, 1986).

However, cross-border M&A has brought challenges for those companies, especially in the post-acquisition phase. The success of the deal depends highly on post-merger/acquisition integration, which is an element of the business dynamics, according to Saxton & Dollinger (2004). Given the joining of two distinct and disparate entities, this will not be that simple to do. Although M&A are common, about 70–80% of mergers and acquisitions fail to significantly outperform the annual cost of capital (Bruner, 2002). Only 17% of cross-border purchases, according to a KPMG analysis, increased shareholder value, while 53% destroyed it (Economist, 1999). Riad (2007) stated unequivocally that research has revealed that just 50% of mergers and acquisitions succeed (or fail) despite the great hopes of success fueled by the motives. Gerds and Schewe (2006) also argued that the failure rate is greater than 60%.

The reasons for failure in M&A are complicated. According to Bohlin et al. (1998), M&As differ significantly along several dimensions, including company size and diversity, industry characteristics, overlaps in products, markets, and customers, prior experience with mergers and acquisitions by the parties, whether the takeover was hostile or friendly, the relative performance strength of the acquired firm, and how much assimilation is desired or necessary. Gadiesh and Ormiston (2002) enumerate five reasons why M&A fails: Poor strategic justification, cultural mismatch, communication, organizational leadership challenges, poorly executed integration planning, and overpaying for the target firm. Cross-border acquisitions also often result in "foreign liability" due to the acquirer's unfamiliarity with the target country, culture, and system (Zaheer, 1995).

## **2.2 Human resource management (HRM) practices**

Arthur (1992) defined Human Resource Management (HRM) as all management actions that affect the organization's interaction (organization and employees) with its human resources. HRM practices are those used to carry out the "human resource" aspects of a management position, such as human resource planning, job analysis, recruitment, selection, orientation, compensation, performance appraisal, training and development, and labor relations. Pfeffer & Jeffrey (1998) proposed seven best HRM practices, namely 1) employment security, 2) selective hiring, 3) self-managed teams, 4) high compensation contingent on performance, 5) training to provide a skilled and motivated workforce, 6) reduction of status differentials, and 7) sharing information.

When examining HRM, there are several viewpoints. Theorists adopting a universalistic perspective think that increased usage of employment practices will always lead to better (or worse) organizational performance (Delery & Doty, 1996).

The productivity and profitability of a company are usually increased when investments are made in "best" HRM practices (Chatterjee & Pearson, 2000). In this view, some HRM practices are always superior to others, and all firms need to use these best practices (Guest et al., 2000). Those are generally considered to be:

- 1) Design effective compensation and recognition systems that reward people for their contributions.
- 2) Create clear job descriptions.
- 3) Decentralized decision making
- 4) Negotiate performance standards, outcomes, and measures based on employees' accomplishments.
- 5) Better collaborations.
- 6) Provide effective orientation, education, and training.
- 7) Conduct quarterly performance development discussions.
- 8) Internal career opportunities. (Jones & Wright, 1992; Arthur, 1994; Heaton, 2013; MacDuffie, 1995; Delery & Doty, 1996; Wiesner & McDonald, 2001; Guest et al., 2003).

Others discovered that the way human resources are managed within organizations needs to be in line with the business plan, which is more from the standpoint of contingency (Delery & Doty, 1996). Contingency arguments suggest interactions rather than the straightforward linear relationships inherent in universalistic theories (Venkatraman, 1989). Contingency theorists, for instance, have made an effort to demonstrate how certain HRM practices are consistent with various strategic stances and how these practices relate to business success. Therefore, in the contingency view, HRM cannot be defined alone, it must be aligned with the business background.

A positive association of HRM practices with the competitive advantage of organizations was reported in most cases (Guest et al., 2003). HRM practices are assumed to have a positive influence on organizational performance (Wright et al., 2003). Theriou & Chatzoglou (2014) proposed the relationship between best HRM practices, knowledge management (KM), organizational learning, and organizational capability (OC), and their impact on organizational performance. However, the link between HRM practices and performance is still not very clearly indicated in previous studies. Research on the HRM-Performance link doesn't have sufficient explanatory power (Fleetwood & Hesketh, 2006). Delery & Shaw (2001) pointed out a lack of understanding of the processes (how and why) by which HRM practices create organizational value and improve performance. Therefore, research is needed to better

connect HRM practices and organizational performance.

### **2.2.1 Staffing**

Staffing is broadly defined as the process of attracting, selecting, and retaining competent individuals to achieve organizational goals (Ployhart, 2006). When considering staffing in organizations, many people assume that this entails considering external candidates for entry into the organization. Internal staffing (promotion, demotion, termination, and relocation) is also important in the definition of staffing (Miller et al., 1998). HR flows entail including the flow of people into, through, and out of the organization. Effective staffing decisions are predicated on the ability of an organization to balance the HR inputs, outputs, and throughputs.

Staffing positions in organizations may well represent one of the most important HRM functions (practices), as who is hired into the job from outside the organization, as well as who is moved to another job internally (e.g., through a promotion decision), or who is moved out of organizations, should ideally reflect job-relevant decisions and the maximizing of critical knowledge, skills, and abilities which contribute to an organization's overall effectiveness and its competitive advantage (Judge & Ferris, 1992).

Staffing challenges faced by international organizations or projects are more complex than those faced by domestic organizations or projects (Shen & Edwards, 2004). When it comes to international recruitment and selection, multinational enterprises face more complicated situations and more options in terms of staffing methods, recruitment and selection criteria, and procedures (Shen, 2006). The design of international staffing practices can have a great influence on employee retention (Kopp, 1994).

There are various kinds of staffing approaches within international organizations, including ethnocentric, polycentric, or geocentric staffing. The first refers to assigning only nationals of the parent country to top-level management positions abroad and at headquarters. The second refers to multinational corporations filling top management positions in host countries with host-country nationals and equivalent positions in home countries with parent-country nationals. Finally, top management positions in the third approach are filled based on competence from a global pool of workers, regardless of nationality (Banai & Sama, 2000).

Any type of internal competence transfer may require the international transfer of employees. Therefore, beyond the mere quality of the technologies to be transferred, the process of employee migration transferring plays a crucial role in the successful use of technologies in a multinational company. Localization is an

appropriate mechanism in international tasks to balance the potentially conflicting goals of reducing the proportion of expatriates through localization strategies while promoting the international assignment of local employees. There is a range of options for global staffing, including short-term assignments (Tahvanainen et al., 2005); increased international business travel (Welch et al., 2007); global virtual teams (Welch & Fenwick, 2003); expatriates, etc. (Scullion et al., 2007). Local nationals can be transferred to headquarters on a semi-permanent to permanent basis, in addition to temporarily moving (Harvey & Buckley, 1997; Harvey et al., 2000).

However, this moving mechanism needs to take the availability of employees into account. On the one hand, if employees need international assignments but lack sufficient skills related, extensive training may be required, which incurs additional expenditures and may not always be practical. On the other hand, the willingness of the staff members is also important (Sebastian Reiche, 2007). The effectiveness of assignment-related moving methods may be impacted by how desirable the allocated moving countries are judged to be. The transfer must also consider any potential racial animosity between the transferee and members of the receiving country (Dowling, 2004). The ability of these practices to be retained may also depend on the distance. In reality, there won't be enough time to grow ex-pats if the locals have high turnover situations or short corporate tenures. The last aspect refers to the limited number of positions available for intraregional and international assignments. Here, the difficulty is to manage employee impressions while successfully matching candidates to open overseas roles (Reade, 2001). It must be taken into account that international assignments are often very expensive, which may reduce their applicability as staffing mechanisms for some multinational corporations (Black & Gregersen, 1999).

Multinational enterprises frequently choose staffing structures that minimize the threat of cultural conflict between parent and subsidiary businesses while also lowering transaction costs. The labor market in the host nation is influenced by sociocultural factors as well. One of the main reasons multinational firms hire expatriates and transfer managers is the shortage of managerial and technical expertise in some countries (Scullion, 1994).

It is suggested the growing importance of inpatriation – the transfer of foreign nationals to the HQ of the MNE (Collings et al., 2008). As has been stated, inpatriates play an important boundary-spanning role since they gain familiarity with both the corporate headquarters and regional operations.

With regard to recruitment, due to the challenging transferability of knowledge, it is quite important to recruit employees with relevant experience. Hamill (1989) noted that the employment of expatriates in acquisitions would be smaller in contrast to newly constructed plots. Different stages call for various types of managers. For

example, managers with entrepreneurial skills are more suited in the emerging stage, whereas, in the mature stage, cost-conscious management is more crucial. As a result, from stage to stage, recruiting and selection will differ. According to the management literature, MNCs must balance their usage of foreign workers and domestic employees to best adapt to the regional business climate. It is believed that ex-pat factories and expatriate employees may be required to obtain a smooth flow of technology.

### **2.2.2 Training**

An organization's workforce should be knowledgeable, skilled, and experienced in order to be successful. Training is the means for an organization to provide the needed knowledge or skills to new and existing employees and is a series of activities carried out by an organization for the purpose of continuous growth (Nda & Fard, 2013). Training has become an essential method in a dynamic and competitive market environment. In all HRM practices, training plays an important role in changing employees' mindsets about knowledge sharing and motivating them to achieve the same goal (Khera & Gulati, 2015). Effective human resource training and development tend to have both short- and long-term benefits for organizations (Nda & Fard, 2013). By enhancing employees' technical skills, training serves as an intervention that raises the caliber of an organization's products and services in the face of fierce competition. Training and development are tools that help human capital explore its flexibility.

Manju & Suresh (2011) assert that training and development are critical to the productivity of organizations' employees. Training has an impact on how people behave and do their jobs, which improves employee performance and leads to positive transformation (Satterfield & Hughes, 2007). And training is especially helpful when sharing tacit knowledge within organizations (Satterfield & Hughes, 2007). Not only does it improve employee resourcefulness, but it also gives them the opportunity to learn to work virtually and be more competent at work. Training and development have positive impacts on enhancing employee commitment, unlocking employees' potential, allowing employees to work more effectively, and improving their interpersonal and technical skills, teamwork skills, work confidence, and motivation (Hutchings et al., 2009).

Not only may training boost employee productivity, but it can also benefit organizational productivity. Training is viewed as a systematic approach to learning that enhances the performance of individuals, groups, and organizations and it can even contribute to the well-being of human capital, organizations, and society as a whole (Nda & Fard, 2013). Training in an organization is the key to unlocking



potential prospects for growth and development opportunities for gaining a competitive edge (Rama & Shaik, 2012). Training is one of the most common ways to communicate organizational goals to staff and therefore improve organizational productivity (Galanou & Priporas, 2009). Training is the most effective way to motivate and maintain high-quality human resources within an organization (Hutchings et al., 2009). According to Konings & Vanormelingen (2015), Colombo & Stanca (2008), and Sepulveda (2010), training is a tool that fundamentally affects the successful achievement of organizational goals.

Organizations need to consistently make appropriate investments in training to increase employee productivity. Organizations should spend a lot of money and time on training to help employees in developing work-related competencies (Noe et al., 2006).

There are two different categories of skills: **hard skills** and **soft skills**. In the corporate world, hard skills refer to the job-related knowledge and abilities that employees need to successfully carry out their job responsibilities. Soft skills are character traits that enable workers to thrive in the job (Laker & Powell, 2011). While soft skills reveal whether the employees are also good in person, hard skills aid in identifying individuals who are quantified in their positions (Laker & Powell, 2011). This indicates that for any individual to succeed in their position, there needs to be a solid balance between hard and soft abilities. From this perspective, there are two types of training: hard skills training (technical skills that involve working with equipment, data, software, etc.) and soft skills training (intra-personal skills such as one's capacity for self-management as well as interpersonal skills such as how one interacts with others.). With hard skills training, the trainee is taught on a need-to-know basis, whereas when learning soft-skill, the trainee is usually taught on a good-to-know basis. Anecdotal evidence has repeatedly demonstrated that training in soft skills has much lower job transferability than training in hard skills (Foxon, 1993; Kupritz, 2002). The following will discuss the reasons for unsatisfied results in soft-skill training.

The goal of technical training is to “reflect” the working environment, and thus it is more in line with transferring (Laker, 1990). Regarding the task's nature, the performance environment for hard skills is typically constant. As a result, hard-skill training operates within a more restricted setting than soft-skill training. Trainers can set up hard skills training situations to be almost identical to the performance setting. Real-life scenarios with soft skills have a lot more complexities and details than what can be shown in a training environment. The imprecision involved in the application of soft-skill training is due to the uncertainty involved. For example, what the trainee needs to know and in what contexts he or she needs to apply that learning (Laker & Powell, 2011). This has implications both in terms of training design and in terms of

the evaluation and measurement of training (Laker & Powell, 2011). A trainer can create more easy models or mimic the on-the-job circumstances of where, when, and how the training will be applied with hard skills (Laker & Powell, 2011). This is rarely achievable with soft skills. The training becomes significantly more challenging when real-life complexity is added to the application of soft skills.

When learning soft skills, trainees are more likely to experience negative outcomes than with hard skills. The reasons are the following (Laker & Powell, 2011):

- 1) Prior knowledge and experience.
- 2) Their own resistance.
- 3) Organizational resistance.
- 4) Less managerial support and greater managerial resistance.
- 5) Difficulty identifying training needs and objectives.
- 6) Less immediate and less salient feedback and consequences.
- 7) Less similarity between training and work or work environment.
- 8) A lower level of immediate and long-term proficiency in applying their training (mastery).
- 9) A lower level of self-efficacy.
- 10) Variations in the trainers' and instructional methods.

Due to the complexities mentioned previously, hard skills training is more likely to succeed than soft skills training (Laker & Powell, 2011). The hard-skill trainee is more likely to leave the training with a greater degree of proficiency or mastery than an individual who has received soft-skill training. Hard skills trainees may have higher training self-efficacy than soft skills trainees based on their previous success.

Soft skills training may only increase trainee anxiety because such training often introduces behavioral responses and cognitions that conflict with their previously held beliefs, values, and frequently used behaviors. Soft skills trainees generally interact with people rather than tools and devices and are therefore more likely to be plagued by competitive or alternative ways of responding (Charoensap-Kelly, P at al., 2016).

Given the perceived dismal effectiveness of soft-skills training, it is believed hiring employees who are already proficient in soft skills is more reasonable than assuming that they can successfully train such employees in related skills (O'Sullivan, 2000). However, although more efforts are needed in the transference of soft skills than hard skills, Rohan & Madhumita (2012) support that companies should invest in soft skills training like decision-making, teamwork, problem-solving, and

interpersonal relationships for employees. Because it might have a beneficial impact on organizational growth levels and employee performance.

### **2.2.3. Performance-related rewards**

There are two basic types of remuneration schemes:

1) Fixed level pay: earnings or salaries usually do not vary from one payment period to the next. Payment only rises when defined pay increases, generally on an annual basis. There may be compensation grades based on seniority, responsibilities, or age (Brauns, 2013).

2) Reward correlated with performance: the correlation may be on a daily, weekly, monthly, or annual basis. Depending on the quality or quantity of work, the payment for any given period may differ from that for any other period (Price, 2007).

A performance-related reward system (PRRS) is designed to reward employees based on their performance, with higher performers receiving a bigger share of the incentives available and vice versa (Leopold et al., 1999). They are notably linked to performance or contingent pay systems and are typically perceived to include socio-psychological as well as material aspects of rewards (Bozionelos & Wang, 2007). Following are some characteristics of performance management:

- 1) Individual and group responsibilities support the organization's goals.
- 2) All performance is measured and evaluated in terms of those responsibilities and goals.
- 3) All rewards are based on employee performance.
- 4) Organizational structures, processes, resources, and authority systems are created to maximize the performance of all employees.
- 5) The development and direction of acceptable organizational goals, as well as the pursuit of newer, more appropriate goals, are ongoing efforts (Price, 2007)

Armstrong (2006) defines performance as the accomplishment of quantifiable goals, which involves both what people accomplish and how they accomplish it. In order to determine what has to be done to develop those achievements, performance analysis must focus more on how results are achieved. Armstrong (2006) argues that one of the primary purposes of performance management is to align individual and organizational objectives. Alignment can be accomplished via a flowing process, allowing objectives to cascade from the top and allow team or individual objectives to be set considering these higher-level goals. To direct, manage, and enhance employee performance, performance management employs a number of "tools" (Brauns, 2013).

These instruments—reward systems, leadership, job design, training initiatives, and performance evaluations—can be viewed as a component of an effective human performance management system.

The term "reward" refers to all the monetary, non-monetary, and psychological benefits that a company provides for its employees in exchange for the work they perform (Waqas & Saleem, 2014). Swanepoel et al. (2008) distinguish between intrinsic and extrinsic rewards. Intrinsic rewards are self-administered and are linked to the job itself, such as the opportunity to do important tasks, a diversity of experiences, and feedback on the outcomes of the work. In other words, it is the satisfaction that a person feels after doing the job. Extrinsic rewards are those that an employee receives from sources outside of their place of employment. This refers to rewards received for performing the work, like a promotion or pay.

Performance and reward are closely correlated due to the fact that work can be more rewarding if what you desire at work can make it more fulfilling. As a result, rewarding work increases the likelihood that an employee will perform well. Hence, the reward is an important component of human resource management.

Armstrong (2002) suggests that an employee reward system consists of an organization's integrated policies, processes, and practices. The reward system usually aims at rewarding its employees in terms of skill, competence, and market value. An employee reward system is established within the framework of the organization's reward philosophy and policies which take into account the appropriate types and amounts of salary, benefits, and other forms of reward.

A performance management system is thought to serve the following purposes:

- 1) Reinforcing organizational values and norms.
- 2) Integrating individual goals with those of the organization.
- 3) Enabling people to express their opinions on the job.
- 4) Giving managers and employees a way to communicate performance expectations (Armstrong, 1991).
- 5) Performance Management Systems include a variety of tasks, indicating that they involve more than just evaluating an employee's performance.

The corporate and human resource management methods "drive reward management techniques and policies (Armstrong & Murlis, 2007). Corporate and human resource management strategies provide a stimulus for change and innovation in the management of remuneration. Rewards related to performance have been increasingly employed symbolically by employers as a lever for organizational reform (Poole & Jenkins, 1998).

It is reasonable to relate compensation and results of employee performance. Employees are motivated when they receive financial awards that are closely related to their performance (Altarawmneh & AlKilani, 2010). Fulmer et al. (2003) looked into the relationship between pay and job performance and discovered a positive relationship.

The purpose of Performance Management is a means of achieving improved results from the organization, groups, teams, and individuals by understanding and managing performance within a predetermined framework. Performance management is a technique to help establish and understand what is to be achieved, as well as an approach to managing and developing employees in a way that increases the achievement of short-and long-term objectives (Brauns, 2013). In fact, performance-related management systems can be essential for achieving organizational goals (Belfield & Marsden, 2003).

The following are the specific goals of employee rewards (Armstrong, 2002):

- 1) Assist in drawing in, keeping, and inspiring top talent.
- 2) Contribute significantly to the dissemination of the organization's standards, performance, and expectations.
- 3) Encourage behavior that will contribute to the achievement of the organizations' objectives and reflect the 'balanced score card' of its key performance drivers.
- 4) Support organizational transformation initiatives that focus on culture, procedure, and structure.
- 5) Encourage the organization's core principles to be realized in areas like quality, customer service, teamwork, innovation, adaptability, and response time.
- 6) Provide value for money. No reward project should be started unless it has been proven to bring value, and no reward practice should be continued if it does not.

Overly concentrating on performance, however, is not always a good thing. The "dark side" of performance management should also be investigated, which results from improper linkages to rewards. DeCenzo et al. (2016) endorse Armstrong's objective of performance management by stating that there is a risk of the employee's motivation declining in the absence of appropriate two-way feedback on their efforts and their impacts on performance. A performance management system may support employee development, although this is frequently hampered by many factors, the most significant of which are (Brauns, 2013):

- 1) The connection between personal choices and corporate goals.

- 2) Establishing and coordinating goals.
- 3) Differentiate the terms "reward" and "incentive."
- 4) The relationship between incentives and business performance.
- 5) Managers' presumptions and views with a motivation theory.
- 6) Performance evaluation as a management technique.
- 7) The emphasis on performance.
- 8) The impact on the employment relationship.

Disconnections between organizational performance, human resource performance, performance management, and incentive structures are possible on a variety of levels. Employees may be financially motivated when firms use financial incentives to motivate them, but will they be driven to do the things that effectively support business strategy? If organizations place too much emphasis on performance incentives, the risk of undermining the objectives may occur at the organizational and individual levels during the appraisal process (Mohpman & Mohrman, 1995).

How to set up a performance-related reward system with good feedback? The challenge then becomes finding the right incentives to achieve the goals after they have been defined.

Armstrong (2002) claims that “a performance-related reward system expresses what the organization values and is prepared to pay for.” It is governed by the requirement to recognize excellent performance and convey the right message about what is crucial to the organization. It is governed by the requirement to recognize excellent performance and to effectively communicate what is crucial from the viewpoint of the organization.

According to Armstrong (2002), from the perspective of an employee, the reward system should:

- 1) Treat them as stakeholders who have a stake in the creation of the compensation policies that affect them.
- 2) With respect to the work they do and their contribution, live up to their expectations that they will be treated equitably, fairly, and consistently.
- 3) Be transparent and upfront; they should be aware of the organization's reward policies and how they affect them.

Despite the fact that collaborative rather than individual methods of rewards are more popular, managements of larger-scale enterprises are more likely to establish sophisticated reward systems (Poole & Jenkins, 1998).

## 2.2.4. Project-based HRM

According to research findings, project-based organizations and diverse organizational transformations have a fundamental impact on human resource management (HRM) (Bredin & Söderlund, 2006). A temporary organization can be defined as “a temporally constrained group or system of interdependent organizational actors, organized to execute a complex job” (Burke & Morley, 2016: 1236). Generally speaking, temporary organizations differ greatly structurally from permanent ones (Samimi & Sydow, 2021). Projects, project management, and different project architectures can improve knowledge resource integration and boost flexibility (Bredin & Söderlund, 2011). Companies in various industries acquire traits resembling those of project-based organizations, especially in knowledge-intensive, fast-paced, and sophisticated product and system-producing industries (Hobday, 2000). According to Sydow et al. (2004), projects take place on four levels:

- 1) Organizational units, where the project is integrated into a functional or business unit.
- 2) Entire organizations, where the organization is entirely based on projects.
- 3) Networks that enable inter-organizational project collaboration.
- 4) Organizational fields, which offer a specific context for project-based organizing in a particular region or industry.

HRM practices have beneficial impacts on project-related performance. HRM practices can improve knowledge management by encouraging knowledge sharing through incentive programs, enhancing project-related expertise through training and development, and offering career advancement opportunities (Turner et al., 2008). According to Jackson (2010), project-based HRM practices are essential for developing knowledge resources and capacities and contribute to the process of knowledge acquisition and sharing. By increasing project team engagement, offering incentives to exchange best practices, and providing project-related skill training, HRM practices can increase the value of a project team's realized performance on results (Meng & Gallagher, 2012; Minbaeva et al., 2012).

Turner et al. (2008) assert those project-based HRM practices that contribute to project success are those that foster the development of a project team's unique skills and abilities, as well as those that encourage the team through project appraisals and rewards (both monetary and non-monetary). Also, the best HRM methods support individuals' competence, motivation, and opportunities for effectiveness (Boxall, 2003; Lepak et al., 2006).

Project-based work environments also appear to share some traits that highlight the significance of HRM. However, these traits put current HRM concepts and practices to the challenge (Turner et al., 2008). Competence, trust, change, and people are identified as the four key challenges for the analysis of HRM in POCs project-related environments by Bredin & Söderlund (2006). These difficulties regarding the functions of HRM (knowledge brokers, trust builders, change agents, and artist agencies, for example). Also, different forms of HRM practices are required for more decentralized and interactive organizations (Bredin & Söderlund, 2011).

The HRM at the operational level in a project-based organization requires the collaboration of four key players: HR specialists, line managers, project managers, and project workers (Bredin & Söderlund, 2011). The function of HRM practices in a project should incorporate these additional components of project management in addition to just facilitating project operations (Popaitoon & Siengthai, 2014).

### **2.2.5. Human Resource Management (HRM) practices in ITT process**

Management of human resources is essential to carrying out a company's business strategy effectively (Torbiorn, 1997). The process of technology transfer can be facilitated by specialized human capital.

Naito (1989) identified four elements in the technology transfer process: human resources, information, resources, and capital. Human resources are considered the most important factor in the whole process. Ng et al. (2012) proposed that in ITT, human capital is one of the important factors affecting effectiveness. Liu & Vrontis (2017) suggest that great HRM in the ITT processes can help to acquire companies respond more effectively to global challenges.

Research has shown that the use of HRM affects the absorptive capacity of knowledge, which is positively correlated with the degree of knowledge transfer to subsidiaries (Minbaeva, 2005). Utilizing human resources is part of applying knowledge (competency). HRM practices can increase the absorptive capacity of the acquired unit, thereby improving the overall efficiency of the knowledge transfer process.

Heslop et al. (2001) suggest that ITT comes from a range of skills and human resource activities, including cross-functional teamwork, communication between the two parties, etc. They believe inappropriate HRM in ITT will lead to certain situations, such as engaging in wrong tasks or allocating energy to unneeded resources. These jeopardize the project performance and even the cooperation between the two partners.



Hence human resource management plays a key role in how new technologies and knowledge are acquired during the technology transfer process.

HRM practices may be particularly important because they shape the motivations of individuals in ITT processes (Liu & Meyer, 2020). Researchers found that collaborative HRM practices enable the ITT from the target to the acquirer (Liu & Meyer, 2020). Minbaeva et al. (2003) suggest that HRM activities like investments in knowledge recipient absorptive capacity development, through the extensive use of training, performance appraisals, performance-based compensation, and internal communication, contribute to knowledge transfer in MNCs.

Minbaeva (2005) found that staffing, training, promotion, compensation, and assessment are expected to facilitate the transfer of knowledge to subsidiaries by influencing the competence and motivation of knowledge recipients. He also argued that some HRM practices that affect absorptive capacity are complementary.

Technology transfer may be influenced by talent management strategies (Collings, 2014; Tung, 2016). Human resource managers can recruit local talent with language skills and cultural competence for senior and mid-level interface positions, especially those who see the role of expatriates and returnees in multinational corporations in emerging economies (Meyer & Xin, 2018).

Ciborowski & Skrodzka (2019) emphasized that practical knowledge and experience are essential for the implementation and application of new technologies. Therefore, ITT requires the simultaneous flow of knowledge through multiple channels. In addition to the transfer of coding knowledge embodied in investment goods and documents, there should also be the need for training in human resources activities.

Lyles & Salk (1996) found that training programs are important knowledge acquisition mechanisms. They also claim that training programs are an important tool for creating connections between local and parent company employees, thereby fostering collaboration and knowledge exchange. Liu & Meyer (2020) also cited the need for specialized training and workshops to provide technical and soft skills within ITT.

Reward systems include motivational and organizational functions and are thought to play a role in attracting employees and ensuring strategic direction (Bourne et al., 2013). Rahman et al. (2011) argued that effective performance reviews and a transparent reward system are critical to retaining talent. They also found that financial incentive policies are generally considered to have the most significant impact on employee performance, followed by a diverse workforce culture. Lane and Lubatkin (1998) considered compensation practices and found that one firm's ability

to learn from another was determined by the relative similarity of student and faculty firms' compensation policies.

## **2.3 The cultural and organizational factors in ITT**

Some of the technology's standard operating procedures are ingrained in the transferor's organizational structure and culture, which the transferee may find challenging to imitate in a timely manner. So, in addition to the technology itself, technology transfer should consider organizational, and cultural factors.

### **2.3.1 Cultural factors in ITT**

One of the major drivers of the success and sustainability of investment and monetary interactions among nations and industries has been recognized as culture. The expansion of manufacturing activities from developed to developing countries through technology transfer channels is especially influenced by culture. Cultural diversity is crucial to the successful completion of cross-cultural technology transfer and is a significant challenge for managers leading global technology transfer projects.

Cultural distance is defined as the resulting vector of culture-based factors (i.e., languages, values, norms, or meanings) that impede the flow of information between partners (Johanson & Vahlne, 2017). The exchange of knowledge and learning can be hindered by cultural misunderstandings that have their roots in cultural differences. Mowery et al. (1996) noted that foreign alliances have lower levels of knowledge transmission than domestic alliances. Cultural distance is crucial for information sharing. The first hurdle to understanding partners is cultural remoteness. The biggest challenge in this situation may be the foreign partner's limited language skills because even well-coded information is inaccessible. Second, cultural distance makes it tough to understand the significance and value of nonverbal cues given by partner members.

From inception onwards, the partner's national and organizational cultures have the potential to deeply affect all aspects of collaboration, including knowledge management (Ren et al., 2009). Culture affects technology transfer through various moderators, such as attitude, motivation, and complexity (Erensal & Albayrak, 2008). All dimensions of collaborations during cross-national knowledge transfer in a business context can be impacted by the partners' organizational and country cultures. According to Kedia & Bhagat (1988), one of the organizational communication impediments is the perceived cultural difference between the transferor and the transferee, sometimes known as "gaps." Due to differences in organizational and national cultures, information that the transferor intends to send the transferee during the TT process may not be correctly understood. Cultural conflicts, misunderstandings,

and communication barriers brought on by cultural differences reduce information and learning flows and have developed into problems (Lyles & Salk, 1996; Simonin, 1999). National cultural differences could lead to interpersonal tension between local and foreign employees, which could impede the sharing of knowledge between them (Child & Rodrigues, 1996).

According to some research, the acquisition of tacit knowledge rather than the acquisition of explicit knowledge is more negatively impacted by cultural distance. Language and common values/meanings are two key areas where cultural distance creates issues. Language barriers may make it difficult to communicate, but this issue can be solved in a number of ways, including hiring bilingual employees and using bilingual documentation. Conversely, partner misunderstandings brought on by incorrect values and interpretations of non-verbal signals can be far more dangerous and difficult to resolve. First, in a nonverbal dialogue or observation, partner members cannot confirm that they are fully understood or that they concur with one another. As a result, experiential learning and feedback that contributes to the acquisition of tacit knowledge are disrupted (Evangelista, 2009). Second, miscommunication can breed mistrust (Hennart & Zeng, 2002), harming the connections and making partners reluctant to communicate and exchange information.

When subsidiaries are located in similar cultural contexts, inter-subsiary knowledge transfers are generally more successful (Lucas, 2006). Organizations located in individualist cultures favor transferring and absorbing more overt and independent information, while organizations located in collectivist cultures favor transferring and absorbing more overt and communal knowledge (Bhagat et al., 2002). If the residents or employees have a high tolerance for ambiguity, they tend to be more adept at transmitting and receiving tacit, intricate, and collective knowledge than those who have a low tolerance (Bhagat et al., 2002).

Ultimately, the impacts of cultural factors on ITT may never be completely free of problems. However, managers must have in-depth knowledge of both their staff and industrial technology management in order to reduce cultural issues (Nguyen & Aoyama, 2015). Training in cross-cultural work practices can benefit employees to work effectively with new technology in the multicultural workplace (Nguyen & Aoyama, 2015). Both sides should be aware of their different cultural values and use the appropriate interfaces to reduce cultural obstacles, maintain a cooperative environment, and transform cultural values into business values.

Management practices should take into account potential means of facilitating efficient cross-cultural technology transfer, such as supporting one another, consistently creating an environment of approachability for communicating and sharing ideas, and sharing ideas, feelings, hopes, and common concerns and business

values (Nguyen & Aoyama, 2015). These will help to achieve efficient technology transfer while reducing the impacts of national cultural differences, language differences, and other culture-driven obstacles.

However, given the nature of different technologies, cultural differences can have different impacts. When transferring certain types of technology, cultural differences are not always bad. Cultural differences, for instance, may push ITT teams to complete the technology transfer as fast as possible and to reduce the amount of time spent communicating technical information in order to get home on time (Lin & Berg, 2001). If the technology is simple to transfer, cultural differences may not be a serious issue, but they are essential for the successful transfer of a complex and innovative technology that necessitates significant interpersonal connections between working groups from both organizations (Lin & Berg, 2001).

### **2.3.2 Organizational factors in ITT**

The technology transfers (TT) in cooperative joint ventures (JVs) frequently involve trade-offs between the degree of protection of the proprietary technology, knowledge, and competencies as the source of the supplier's competitive advantage and the willingness of the technology supplier to transfer a significant amount of their technologies to the technology purchaser (Inkpen, 2000). Although technology transfers are the most effective way to internalize the partner's technologies, these transfers frequently involve several facilitators, actors, and complicated relationships between partners that directly affect the performance of the technology transferred (Inkpen, 2000).

The technology transfer outcome could have been significantly influenced or moderated by variables such as the size of MNCs, age of JV, MNCs' country of origin, and MNCs' types of industry. The knowledge transferred, the recipient of the technology, the supplier of the technology, and the relationship features determine the inter-firm technology transfer between international MNCs and the local recipients' enterprises (Abdul Wahab et al., 2009).

Technology transfer often involves organizational learning (OL). OL has been described by previous scholars as:

- 1) the process by which the organizational knowledge base is developed and shaped (Tsang, 1999).
- 2) the development of insights, knowledge, and associations between past actions, the effectiveness of those actions, and future actions (Tsang, 1999).
- 3) an intentional and unintentional organizational process that enables the

acquisition of, access to, and revision of organizational memory (Robey et al., 2000).

The results of organizational learning include behavior changes and increased organizational effectiveness.

In ITT, organizational compatibility is a crucial indicator of the effectiveness of interactions. The beneficial effect of organizational compatibility on ITT quality may be strengthened through solid alliance management capabilities. The relational approach claims those interacting organizations can achieve tremendous success when their resources and competencies are complementary. But for many businesses, it can be extremely difficult to recognize and assess potential complementarities between technology transfer partners.

Only a few studies have examined the impact the organizational traits like age, manufacturing years, and ownership style on the successful implementation of technology transfer across nations (eg. Nguyen et al., 2012). Therefore, to gain insight into the overall technology transfer implementation, it is important to investigate further the influence of organizational characteristics on the relationships examined in this study.

## 3. Research Direction and Research Methods

### 3.1 Research objective

According to the literature review, HRM is crucial to the technology transfer process and performance, but how it works and how to properly link the HRM and the performance of ITT together is still an interesting topic to investigate. The main objective of this study is to investigate the role of HRM practices in a successful ITT in the context of M&A. And the research will put the objective in a specific case for analysis, due to the complexity of the commercial world.

To accomplish the main research objective, additional sub-goals below should be accomplished when investigating the case:

- 1) Point out the challenges of ITT in the context of M&A.
- 2) Specify criteria for assessing successful ITT.
- 3) Indicate how HRM practices may affect ITT performance.
- 4) Propose important HRM practices in technology transfer.
- 5) Assess the cultural and organizational factors in ITT.

The research cannot exclude cultural and organizational influence from HRM practices and technology transfer. The cultural and organizational factors will be analyzed in this single case study. The investigated HRM practices are training, staffing, and performance-related rewards based on the selective criteria introduced in chapter 1.

### 3.2 Research question

The most crucial and possibly hardest element of study design is creating the research questions (Bryman, 2016). Decisions regarding study design and methodology are influenced by the research questions. It helps to link the literature review to the data that will be collected. As a result, the formulation of research questions plays a significant part in many definitions of the research process because it is a step that guards against undisciplined data collecting and processing (Bryman, 2007). The main research question should answer the main objectives. Therefore, as follows

*How can HRM practices facilitate ITT, in the context of M&A ?*

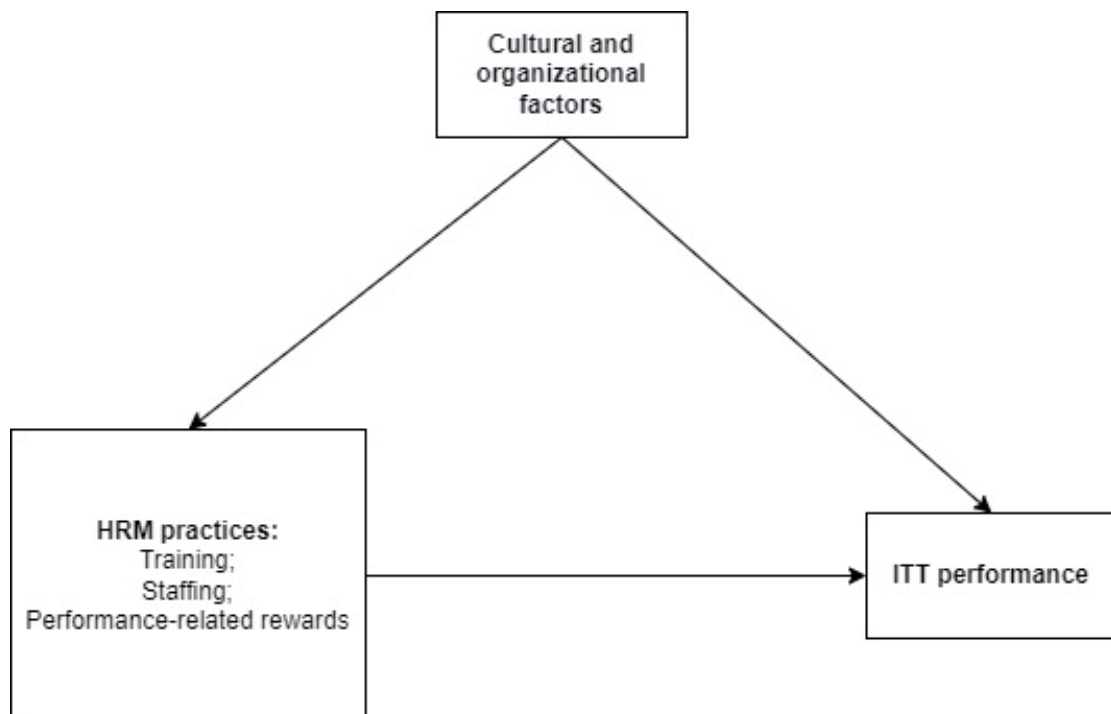
This research question will be applied in a single case study and the research will

give answers observed from the case. Some sub-questions are defined in the context of a single case study, to help with the sub-objectives given above.

- What are the difficulties/challenges for the ITT in the context of M&A?
- What are the evaluation criteria for the ITT?
- How can HRM practices influence the acquisition and integration of new technology?
- How can HRM practices increase the performance of the ITT projects from both the technology-giving side and the technology-receiving side?
- How do cultural and organizational structural factors affect the implementation of HRM practices during the ITT process?

### 3.3 Conceptual model

The conceptual framework helps determine the variables and the possible relationships based on logic, theory, and/or experience. It also can provide researchers with available opportunities for the knowledge to be collected into a structure (Miles & Huberman, 1994:18). The framework proposed is shown in the following figure.



**Figure 1. The conceptual model of the influence of HRM practices**

In this model, the independent variables are different HRM practices, and the dependent variable is technology transfer performance. Since the independent variables and dependent variables are relatively broad concepts, they are simply refined and will be detailed based on further studies. HRM practices can affect efficiency, communication, etc., which can have an impact on the performance of ITT. The performance of ITT also needs to be defined in detail. However, organizational behavior is complex, when doing single-case studies, the background needs to be considered, acknowledging the complexity of behaviors, experiences, and relationships (MacKinnon, 2011).

### **3.4 Research method**

In this thesis, a single case study will be introduced. It is qualitative research. Exploratory qualitative methods are useful for spotting potential connections, patterns, and trends. This study will study the connections or interactions between the use of HRM practices within the organization and the ITT performance. Answering the research questions requires understanding the procedures involved. Semi-structured interviews will be used for collecting data.

#### **3.4.1 Single case study**

Case studies help answer "how" and "why" questions, as well as generate and build theory in areas with little data or views (Yin, 1994). Qualitative case studies provide researchers with the opportunity to explore or describe phenomena using a variety of data sources.

Because of its flexibility and rigor, this approach is valuable for scientific research to develop theory, evaluate programs, and formulate interventions (Yin, 2009). However, qualitative case studies also are doubted as having insufficient data fairness (Hafiz, 2008).

Contextual conditions are related to the phenomenon under study. The problem is not isolated but intricately linked to political, social, and historical contexts (Stake, 1994). All these implications are important when studying the case.

The biggest limitation of case studies considered is that they do not actually provide a good basis for the generalization of findings. And this limitation is considered to be more severe if the study involves a single case. This usually manifests itself as a lack of external validity—the impossibility of extending the case study findings to populations of other cases (Donmoyer, 1990; Kennedy, 1979; Yin, 2009).



However, a single case study can create more complex theories than multiple cases study because researchers can precisely fit their theory to many details with a single case, while multi-case researchers only retain relationships that are replicated in most or all cases (Eisenhardt & Graebner, 2007, p. 30). Thus, single case studies could make important contributions to theoretical development.

In keeping with the research criteria, a single case study method has been selected to address the research questions. In a complex business environment, a single case study helps to gain a deeper understanding of the case rather than giving simple general conclusions.

A case with a Chinese medical company will be studied, where a Chinese medical company acquired a Dutch company and carried out ITT processes. It is the process whereby a large firm in a developing country acquires a Small and medium-sized enterprise (SME) in a developed country due to a lack of a particular technology. Foreign investment such as M&A that is driven by technology transfer has historically been a common practice and a crucial component of the strategy of many multinational corporations. This case is somewhat universal in the current business environment. Also, due to the policies and measures restricting market access in Chinese medical industries, with the effect of "forcing" ITT, the case is especially valuable.

### **3.4.2 Data collection methods**

The data collection method for different variables is interviewing. Interviews will be used to collect data needed in the conceptual model from both the HRM and ITT sides.

Interviews have long been considered to be an efficient method in the science research field. Qualitative researchers tend to provide detailed descriptions of individuals and events in natural environments, interviews are often considered a critical factor in research design (Weiss, 1995). In addition, interviews have advantages like high return rate, incomplete answers, involvement, in reality, controlled answering order, and relative flexibility. However, the interviews also have disadvantages, such as being time-consuming, small-scale study, cannot ensure anonymity, the potential for subconscious bias, and potential inconsistencies (Brown, 2005).

In this thesis, semi-structured interviews will be adopted. The semi-structured interview is more flexible than the structured interview because it achieves depth by providing the interviewer with the opportunity to explore and expand upon the respondent's response (Schmidt, 2004).

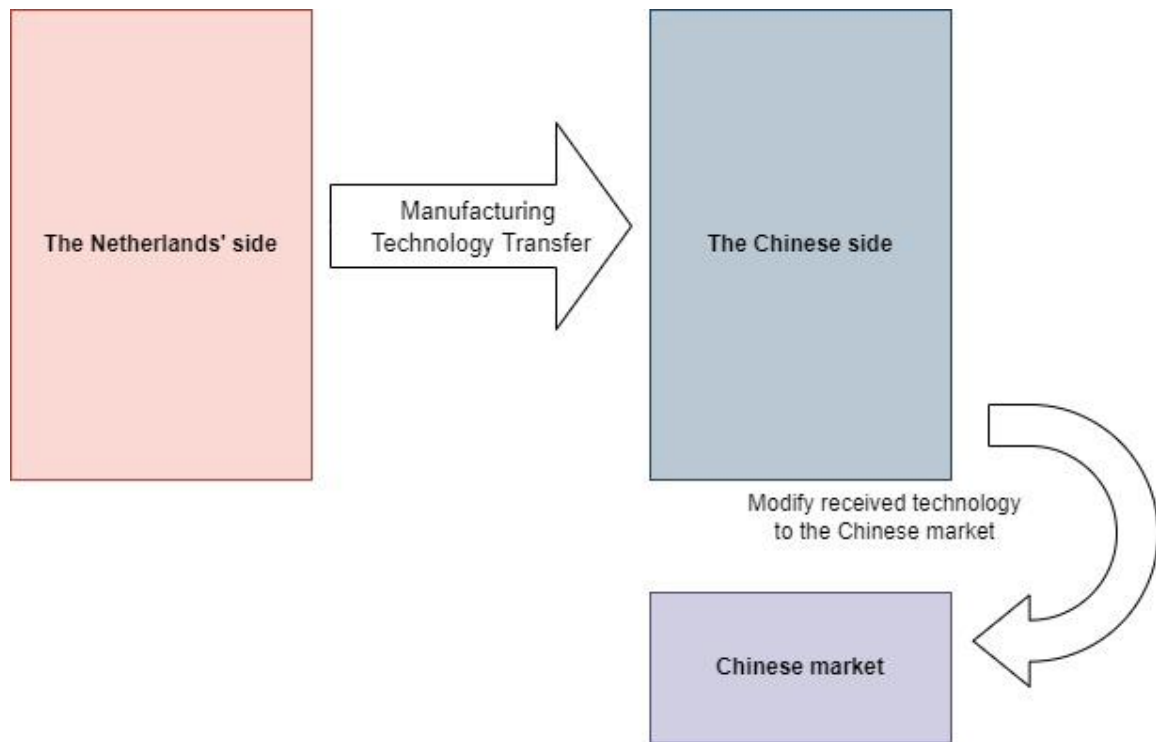
The interview sample for this study was nine people. Those interviewees are selected from both sides of the project team. They take on different roles in the organization, ensuring sample diversity. The interview content has been recorded with a tape recorder with the interviewee's consent. In order to protect the privacy of participants, after the data is transcribed, the recordings will be destroyed. The interview results will be anonymous, and no specific personally identifiable information (PII) will be included in this thesis.

## **3.5 The case study introduction**

### **3.5.1 Background introduction**

The M&A had happened between the two companies one year before the ITT project started. After the acquisition, the parent company included the acquired foreign companies as a separate branch in their main organizational structure. They kept the Dutch company's management structure while having a few adjustments. The parent company has an international management team for managing those acquired international companies, and the Dutch company is also under its supervision. The Chinese project team aimed for the ITT project was newly set, in order to satisfy the needs of ITT while keeping the original organizational structure. The Chinese team has great autonomy but still needs to follow the structure and rules of the parent company.

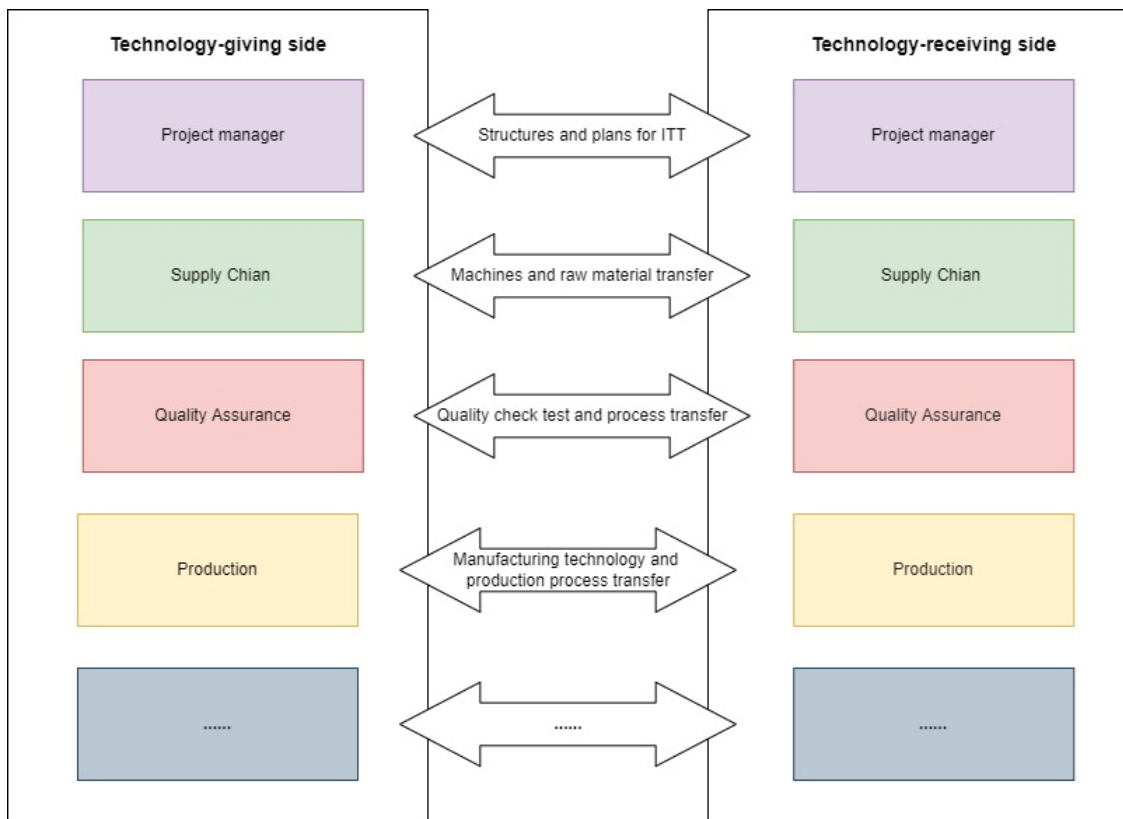
The technologies transferred between the bilateral companies are based on manufacturing technologies. The Dutch company has opulent experience in producing intraocular lenses. And the Chinese side is hoping to localize those production technologies to adopt the restrictions on importing medical supplies in China while gaining greater productivity. The technology transfer process involves knowledge transfer and technology transfer, including equipment transfer, process transfer, and quality testing transfer. Production-related tests or experiments, QA processes, machines, raw material, etc. also need to be transferred. The transfer in medical industries requires high precision in the technology acquisition process. Also, the technology integration process is also needed to adapt to local policies in China. China and the Netherlands have different systems of medical quality standards. Thus, the technology transfer process is not only easily "copy and paste". Those factors make the technology transfer process more challenging.



**Figure 2. The ITT project**

Measuring the performance of the technology transfer is difficult. Specific criteria need to be adopted in different backgrounds. In this case, two main kinds of criteria are used. The first kind is project implementation, whether the project is proceeding step by step according to the timeline and aligned to the requirements. The second criterion is the quality of the samples produced during the technology transfer process. Because the technologies transferred are manufacturing technologies, the quality of the samples largely reflects the transfer's success.

In this case, the bilateral organizations set a technology transfer team responsible for the technology transfer project. There are complete personnel structures on both sides of the team and the design of the project team is based on the Dutch company. The team consisted of the project managers, technical engineers, process engineers, quality engineers, supply chain leaders, and R&D employees from both sides. The roles responsible for similar parts of the project on both sides communicate with each other and learn. Therefore, they collaborate and help with the project.

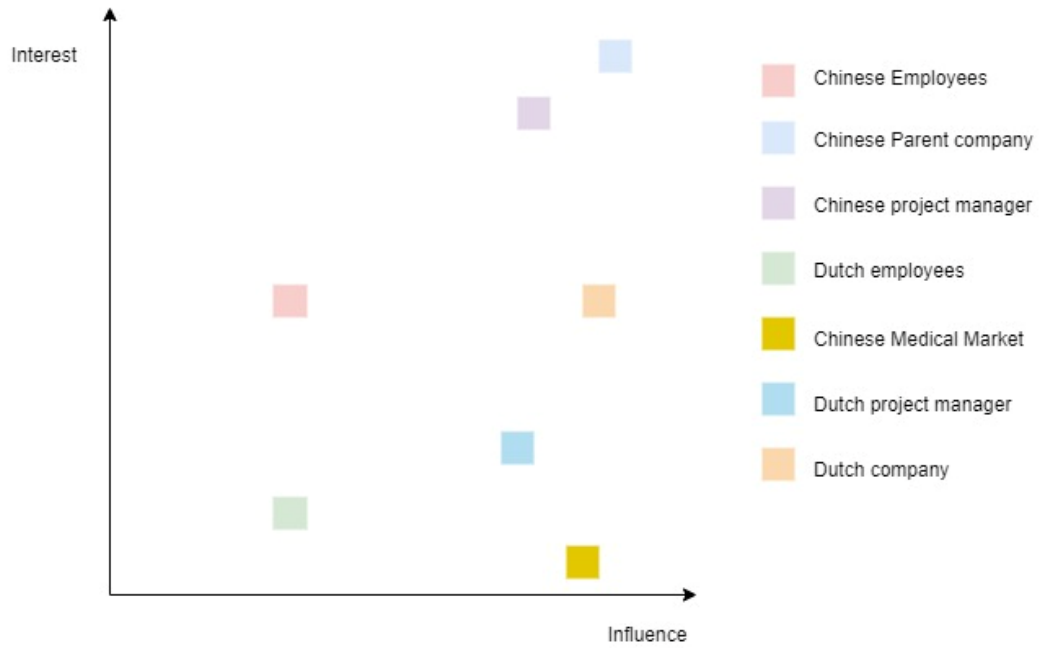


**Figure 3. The structure of the project team**

From the HRM perspective, this project team uses HRM practices including staffing, training and performance-related rewards. Bilateral organizations have their own HRM structures, but at the same time, within the project team, HRM practices are newly adopted by the needs of the project. Therefore, the study can look not only at the impact of these HRM practices, but also at the motivation behind their adoption by the project managers, making the link between HRM practices and international technology performance clearer.

### 3.5.2 Interviewing in this case

The main stakeholders of this case are showing in this figure 4.



**Figure 4. The influence and Interest of stakeholders**

In this case, the stakeholders associated with HRM practices are mainly project employees and project managers. Based on the stakeholder analysis nine interview subjects were introduced, as shown in the table. In the result analysis, the interviewees will be referred by referrals in this list:

<b>The organization of the interviewees</b>	<b>The role of the interviewees</b>	<b>Referral</b>
The Netherlands' side	Project manager	PM-N
The Chinese side	Project manager	PM-C
The Netherlands' side	The supply chain director	Employee-NS
The Chinese side	The supply chain director	Employee-CS
The Netherlands' side	The machine operator	Employee-NP

The Chinese side	The process engineer	Employee-CP
The Netherlands' side	The quality control and R&D employee	Employee-NQ
The Chinese side	The quality engineer	Employee-CQ
The Netherlands' side	The technology engineer	Employee-NT

**Table 1. Interviewees**

Interview subjects were selected from both the Chinese and the Netherlands organizations. The sample of interviewees covers different departments and roles in the bilateral structure and includes project participants at different occupational levels/genders/educational levels. Differentiation of interview samples can aid in a full range of scrutiny. The HRM department is not included in the interviewees because the Human resource departments in both companies are not focusing on the ITT project. They are more in charge of the general HRM practices in the whole company. The management of Human Resources can no longer be viewed as an activity relegated to the Human Resource department. Strategic Human Resources management should be the responsibility of every related manager (Brauns, 2013). Some HRM practices are the domain of the project manager rather than either the HRM department (Keegan et al., 2012). This case is also the situation where the HRM departments don't really make the HRM practices decisions. The decisions and implementation of related HRM practices mainly involve the project manager and employees of this project. Therefore, the research subjects are stakeholders including employees and project managers, rather than the HRM departments in both companies. The project managers are the two main decision-makers in the HRM practices of the ITT project. However, interviews with only project managers may not be so precise as managers typically insist that their management is good and the employees are satisfied with everything, but that may not actually be the case. The employees are also included in the interviews, not only because they are the direct beneficiaries of the HRM practices used, but also because their answers can help examine the results from more points of view.

About interview questions, in addition to general questions, questions such as personal professional experience and the project introductions, more topic-related questions such as the HRM practices used and the performance of technology transfer

were also collected to examine the research questions. A pre-defined interview structure is introduced. However, during the semi-structured interview, the interview questions were adjusted according to the responses of the interviewees.

## 4. Results

### 4.1 The difficulties/challenges of the performance for the ITT

In this case study, the Chinese enterprise bought the Dutch company and then conducted the technology transfer project to transfer the production technology from the Dutch side to China. The parent company built a new factory in China for the ITT and the related production line. A joint organization consisting of employees from both the Chinese side and the Netherlands side was introduced for the ITT process.

When being asked about the difficulties within the project, the PM-C argued that manufacturing technology is relatively straightforward and, therefore, easier when transferring compared to other technologies. He said: “The manufacturing technologies to be transferred are not very difficult to be understood. The transfer mainly focuses on the operational parts and didn’t involve many innovations process; therefore, we didn’t encounter that many difficulties.”

However, the ITT process may not be as easy as PM-C described. There are many factors at play. Most importantly, due to the sensitive nature of the medical domain where precision is of the utmost importance. Further complicating the matter are the policy and regulatory differences between The Netherlands and China. Therefore, the technology integration process needs some effort. The technology transfer process is not as easy as PM-C described.

Almost all employees in this project team encountered some difficulties in the technology transfer process. Although the difficulties varied across different departments, in summary, the reasons are mainly in the following categories:

1) The **difficulties of transferring tacit knowledge**. The years of experience accumulated by the technology-giving side are difficult to transfer to the technology receiver in a short period of time. The Netherlands side is familiar with the technology and has plenty of experience in production; therefore, it did not need any normative or descriptive records from the initial stages. For example, the Netherlands side had not set up clear standards for product quality because they mainly used experience and have experts in determining it.

2) The **different focus on the daily work routine** of employees from the technology-receiving side. The Netherlands side focuses more on the product's production rather than transferring the technology more efficiently. The needs from the Chinese side and the motivations from the Dutch side are, to some extent, not very



matched.

3) The **different markets and policies between the Netherlands and China**. The integration process is needed on the Chinese side, which requires extra effort.

4) In the first stage, the **technology-receiving part's needs are often unclear**, therefore some misunderstandings occur. The complete product production process needs to be transferred. However, it is not easy for the technology receiving side to see all the details of the entire production process in advance until it is formally put into production. As a result, some less obvious tasks, technologies, or knowledge can easily be overlooked. By the time they realize it, it is usually late.

The employees from the technology-receiving side agreed that the technology integration was more difficult compared to the technology acceptance, while the technology giving side does not have many perceptions of the difference between the two phases.

## 4.2 The criteria of the performance for the ITT

In the early stages of the project, the PM-C and the PM-N discussed and broke the whole project into specific tasks. Timelines are designed for tasks. According to PM-C and PM-N, the whole process of technology transfer will last four years, and now is the second year of the project. As of the time of writing the thesis, the tasks that have been finished are:

- 1) Project planning.
- 2) Raw material and machine shipping.
- 3) Learning of production technology.
- 4) The production process building in new Chinese factory.

The tasks that still need to be completed are:

- 1) The product samples production (partially completed, only some testing samples were produced)
- 2) Process validation.
- 3) Product registration.

Whether the tasks are completed on time is one of the project's Key performance indicators (KPIs). KPIs are the key driving factors to achieving corporate strategic goals and are evaluation indicators for core events (Pan & Wei, 2012). KPIs will be used to judge the success of the project. The samples are to investigate the quality of

production. PM-C said: “the best way to assess the performance of technology transfer is by investigating whether the outcome of this technology is good enough.” Therefore, in this project, there are two main indicators of the performance of the technology acquisition process:

- 1) The **quality of samples that will be produced**. It indicates the precision of the transferred technology. The produced samples will be examined by the Dutch QA employees and they will give them a rank (pass/not pass). The Chinese team hopes to have a close pass rate compared to the Dutch daily production. The production speed still needs to be improved. The quality of the produced products in China is capable of using but still, the pass rate is not as good as in the Netherlands.
- 2) **Whether the tasks are finished follow the timeline**. It indicates the efficiency of the acquisition. Most tasks can follow the timeline made before, but there were some postpones as the Netherlands side was also busy with the Annual Quality Inspection. There are also some delays caused by force majeure.

The product registration and process validation are more involved in technology integration because it is to meet the requirements for commercial production under Chinese medical industry policy. In the technology integration process, the criteria are based on:

- 1) **Whether the tasks are finished follow the timeline**. It indicates the efficiency of the integration. There were little tasks about integration started, but the tasks that were already started were all on time.
- 2) The official results of the **review by the relevant external organizations**. This sheds light on whether the technology is properly aligned with the Chinese market and policy.

### 4.3 HRM practices in this ITT project

In this case, only local employees are adopted to management positions. Bilateral project managers are selected from experienced senior management of their original organization. They are all locals in their home countries. And the department managers are also selected from locals. On a weekly basis, PM-C and PM-N have project meetings to update the project in sync. PM-C will sometimes introduce the new requirements from the Chinese side to PM-N, and PM-N will judge the feasibility of the requirements based on his experience.

As the PM-C showed, a variety of HRM practices were introduced during the

project. The two ordinary organizations had completely different HRM structures, and the HRM practices were mainly applied to the Chinese team. The use of HRM practices in the Chinese team is based on the human resources structure of the parent company and the PM-C adopted different HRM strategies in different stages. Conversely, the PM-N stated that the HRM practices used in this project on the Netherlands side are not significantly different from the daily HRM practices. However, some HRM practices work coordinately on both sides of the project team, for example, the hard skills training, needs to be collaborated by bilateral organizations. Although technology givers are not very conscious, their work with the project indeed involves and is influenced by those HRM practices.

Most employees did not have a deep perception of the application of HRM practices in this project team. Especially for staff on the Netherlands side, the usage and influence of HRM practices in this project were not very obvious, therefore, they easily ignored the benefits HRM practices brought. Employee-NS said that he saw the project tasks as part of his daily work, and he felt that it was more the perception of the job and the sense of responsibility that influenced his involvement in this project. He also stated that, for him, some of the new tasks were pretty challenging, but his willingness to learn is a motivation for him, rather than HRM practices. Despite this, the research still found that the implementations of HRM practices were ubiquitous in the technology transfer project team.

#### 1) Staffing

Staffing, especially recruiting, is the most perceived HRM practice by employees in this case, as it often has directly impacted themselves, the organizational structure, or the people they work with.

In this case, recruitment took place only on the technology receiving side, as the technology transferor already had a complete staff structure and the Chinese team was newly built. The ITT project requires human resources as the parent company didn't have the technologies and relevant staff before. So apart from some management positions, other roles in the Chinese team are planned by the PM-C and recruited after approval from the parent company.

The PM-C tried to bring in the right staff for the project by recruiting. He believed recruitment was almost the most important HRM practice in this project. He explained, "It is impossible to transfer all the employees with relevant skills from the technology-receiving part. So, recruiting domestic employees is the way to gain relevant human resources. Recruiting professionals with relevant experience and skills can help the knowledge and technology learning in technology transfer." He also felt that, in addition to experience, the staff recruited for the technology transfer should have a strongly holistic view, as technology transfer is more likely to involve

unforeseen situations than day-to-day production activities. About two third of the Chinese employees are members hired for the duties and tasks required by the ITT project. After the ITT process is finished, their roles will be retained to ensure daily production activities.

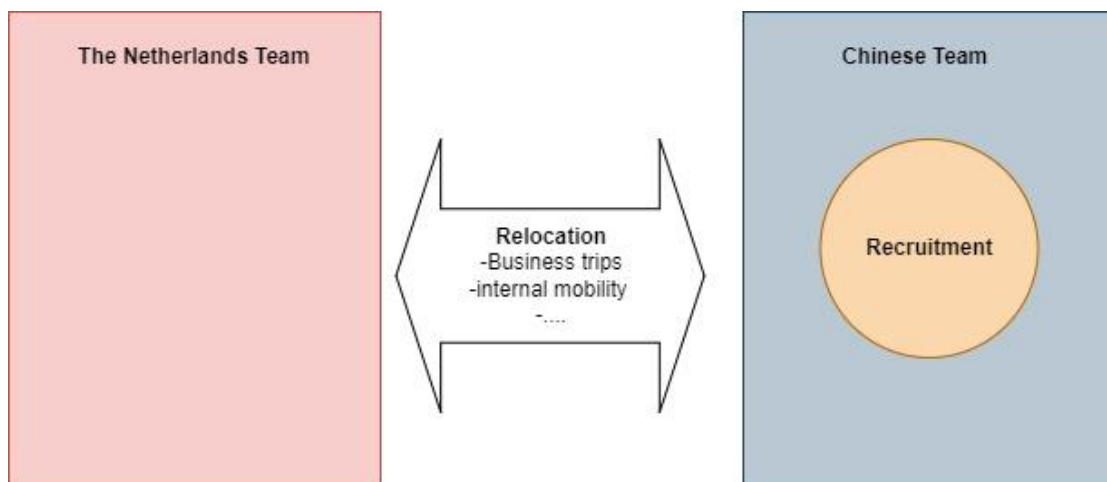
Almost all employees believed that recruitment can help with bringing new employees with specific talents to the organization. They also insisted that the standard of recruitment was important because it directly affected the future composition and cooperation within the organization. Therefore, Employee-CP suggested that recruitment would be better if involve the entire department. He believed it can bring the most suitable candidates to the future team. Employee-CS and Employee-CQ felt that more consideration was needed for the soft skills of candidates in recruitment because they thought soft skills can affect collaborations within the team. Those employees who have better language and communication skills seem to meet fewer difficulties in their work because they have fewer misunderstandings and less reliance on “middlemen” for information sharing. Employee-CQ added: “The candidates should not only know how to work independently in particular tasks but also need to be able to work with multiple departments. Because the technology transfer project is high-demanded in collaboration.”

In this case, employees from the Netherlands side were transferred to China for short-term assignments. Those business trips would last about 2 to 3 months. The two selected employees in the Netherlands’ team would take charge of tasks to help with the set-up of production steps and the training of Chinese employees with related or similar responsibilities. Employee migration transfer needs to be carefully considered since it is expensive. As PM-N introduced, the selection of the staff to be moved was mainly based on their experience and skills. At the same time, the leaving of the transferred employees must not affect the functioning of the original organization. The transferred roles are staff with extensive experience in technical operations and quality inspection. They are not irreplaceable in their original organizations. But their hands-on experience in a variety of production-related duties can make great efforts with the set-up of the production lines in the Chinese factory because they can accurately identify and solve problems encountered in production.

PM-N also argued that the personal wishes of the employees also needed to be considered. Factors like whether they like the culture of the country they would be moved to will influence their attitude toward the moving activity and whether they will perform as expected. In this case, both Dutch employees to be sent showed curiosity about the Chinese culture. PM-C stood in another point of view, concerning the following tasks when the employees were successfully transferred, adding that: “the duties of the employees from the technology giving part after the transfer need to

be defined in advance. A clear pre-defined plan can help the employees have the right expectations and have time to gain the relevant skills they lacked.” To meet the requirements from the Chinese side, the skills the two employees lacked were trained before transferring.

Also, the process engineer from the Chinese side was relocated to the Netherlands and would stay for a quite long time (about 5 years). Employee-CP would mostly work and learn in the Netherlands and sometimes travel to China to collaborate with the process engineers located in China for production-related tasks. This process engineer has overseas work experience and high language skills, so he is a perfect fit for this internal mobility role.



**Figure 5. Staffing in the ITT project**

## 2) Training

According to PM-C and PM-N, the training in this project encompassed production processes, product processing, product packaging, logistics operations, equipment use, product inspection, industry training, regulatory knowledge systems, and cultural differences and communication skills. They agreed that hard skills training was beneficial in manufacturing technology transfer because these technologies to be transferred have a high demand for operating, which can be gained through hard skill training.

During the technology acquisition phase, hard skills training was introduced, focusing on operations and knowledge related to these technologies. PM-C and PM-N introduced that because of the operational level of the technologies to be transferred, hard skills training had to be conducted offline. Therefore, for example, the training receiver of the machine operation training was the process engineer who was sent out from China because he can receive day-to-day training in the Dutch production line easily. The Netherlands employees who were moved to China took on the tasks of

some of the training for the local Chinese employees. PM-C also described the need to bring hard skills training from outside the two organizations, mainly from specialists with experience in relevant fields. These external trainers are more familiar with the Chinese medical industry's market, regulations, policies, and requirements; therefore, they can be helpful with the technology integration process.

When was asked about the soft skill training, PM-C replied: “The soft skills training in this project focuses on the organizational culture and industry-related knowledge. For example, for all newly recruited Chinese employees, I gave general introductions on the basic information about ITT. This training is mainly to increase the employees' awareness of the importance of collaboration and teamwork in this project.” PM-C believed it would let the employees have an overview of the project and thus, help them carry out better teamwork. Also, for Netherlands' project members, similar soft skill training was introduced by PM-N.

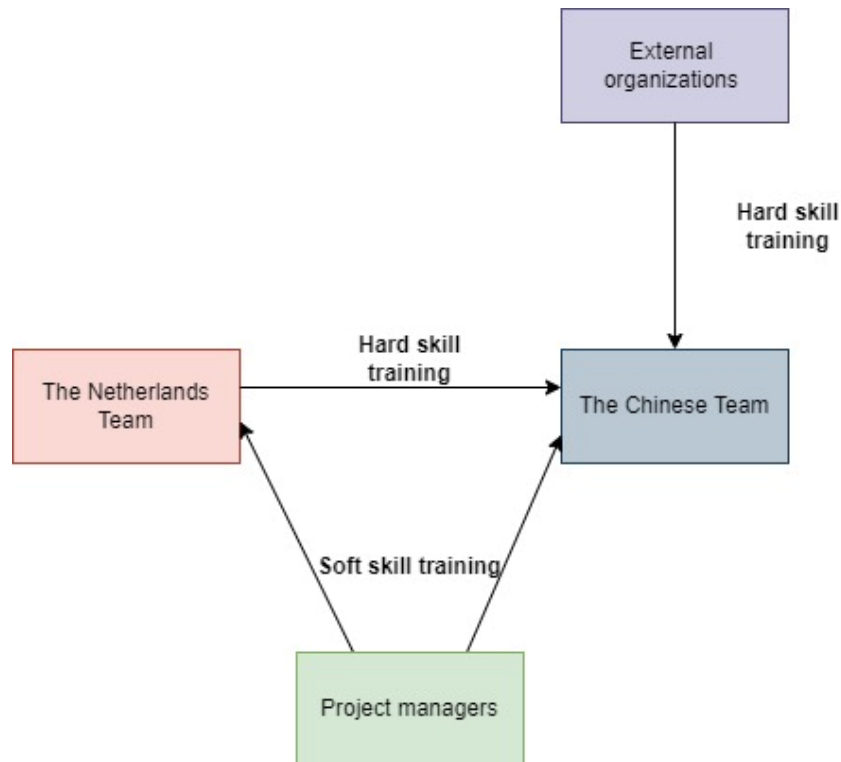
All employees involved in the project received soft skills training on communication, project objectives, cooperation, etc. PM-C and PM-N were the main trainers. Employee-NT, Employee-NQ, and Employee-NP took on the main role of the internal hard-skills trainers. The Employee-NQ and Employee-NP who were sent to China were also trained as trainees to gain more skills required for their tasks in China. For example, Employee-NQ, who was responsible for R&D and quality control, had to learn the process of validation again even though it would not be needed in her daily work, as well as some basic supply chain knowledge. Employee-NQ was also given additional training about the maintenance of machinery.

“The soft-skills training and the hard skills training together influence the technology transfer process,” PM-C emphasized that the success of the technology transfer depends on the effectiveness of both kinds of training. PM-N, on the other hand, considered hard skills training to be more important as it can bring more obvious results or benefits.

Reviewing the results of the training is important but also difficult. According to the PM-C and PM-N, the training results were not linked directly to employees' performances. The main assessment method of training was still only theoretical assessments. Training is usually effective when it is highly linked to the trainees' daily work because the training can influence their performance in their daily work. However, for other training, how to make the trainees receive the training content more efficiently is an unsolved question. In this case study, it can only rely on the motivation of the employees themselves.

Almost everyone agreed that training was an indispensable HRM practice in technology transfer. Employee-NQ, Employee-NP, and Employee-CP believed that training was the most important HRM practice. They also said that they were usually

more energetic when being trained with new knowledge, as they can increase their personal skills. Employee-CQ thought more soft skill training should be brought into this project, while Employee-CP argued that it was more important to put attention towards hard skill training.



**Figure 6. Training in the ITT project**

### 3) Performance-related rewards

Both PM-C and PM-N agreed that rewards can promote motivation among employees and influence their willingness to succeed in their tasks. However, PM-C also said: “Too many incentives can also lead to employees not focusing on the process and collaborations but only on the performance-related tasks. Performance-related rewards may be detrimental to the project's performance in that way.”

PM-C introduced: “Different forms of rewards were set up for employees on both sides of the organization. Extrinsic rewards for the Dutch employees are hardly ever in monetary form but the travel rewards. Because in the Netherlands, the average salaries of employees are relatively higher.” Employees from the Netherlands side would be invited to China for cultural exchange activities when conditions permit, this is more the form of extrinsic reward for them.

For Chinese employees, appropriate bonuses would be offered for the high performance of employees. PM-C introduced that performance-related rewards existed in the project, but there were no detailed criteria for rating performance.

Differential rewards for individuals exist, with special rewards being allocated to better performers, but these are not often or always pre-defined. PM-C said: “Setting up the performance-related reward system is complex, and usually, no single reward system fits everyone in the project.” His defense was proved by employees when they were asked about how much they care about the rewards they would receive, the answers are different, as they had different individual experiences, money perceptions, and current positions. Those might determine his or her perception of monetary incentives and the impacts on his or her performance.

Rewards are more in the form of nodal project rewards in the Chinese team, which is, that when employees collaborate to complete some tasks and finish certain stages of the project, rewards will be received by all employees involved in this phase. PM-C said: “those nodal rewards can help combine the tasks for individuals and the strategies or goals for teams.” PM-C explained there are also annual incentives for the Chinese team, which are based on the parent company's compensation structure. At the beginning of a year, the individual's annual bonus-related performance is defined. At the end of the year, PM-C will review the performance of the employees and give bonuses accordingly. However, both PM-C and PM-N indicated that there were not many extrinsic rewards in the project teams.

However, the employees also argued that they didn't have a clear overview of how the reward system work. Employee-CQ said:” I knew there were rewards but I didn't how the rewards are defined.” Employee-NQ and Employee-NS also said they didn't really know if bonuses would be given if they finished all tasks. The unclear connection between rewards and performance made employees less able to tie their performance to the organization's strategies. Employees did not see themselves as stakeholders in performance systems or organizational strategies.

Intrinsic rewards played a bigger role than material rewards in this project. PM-C kept detailed records of the time the Dutch employees contributed to the project and sent regular thanks letters in hopes the Dutch employees were made aware of the value of their work in the project. At the same time, PM-N also described that for the Dutch employees, he usually gives compliments as intrinsic rewards. "My attitude influences the motivation of the participants, and when I show more enthusiasm for the project and give enough encouragement to the employees, they are likewise more motivated."

For Chinese employees, intrinsic rewards are more in the form of human care given by PM-C. PM-C usually expresses thanks to employees in Chinese organizations for their hard work on specific days (birthdays, special festivals) and gives some rewards such as some extra half-day vacations, team dinners, etc. PM-C also gives monthly praise to outstanding Chinese employees in monthly project



meetings.

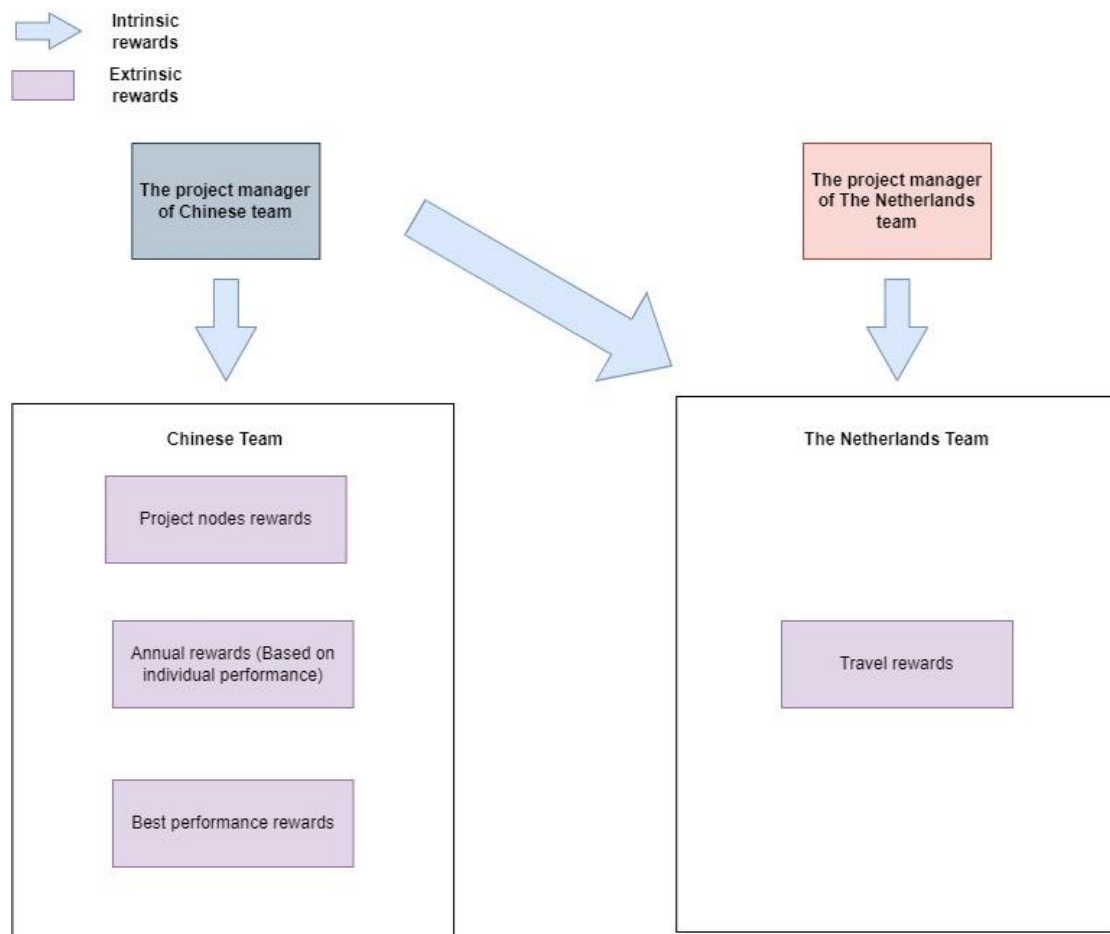


Figure 7. Performance-related rewards

#### 4.4 The cultural and organizational factors

Although the Netherlands team and Chinese team can use English as their working language, almost all employees interviewed reported some communication barriers during work. As Employee-CP said:” The communication barriers have led to inefficiencies such as misunderstandings and extra time spent communicating.” Employees from both sides felt that the language environment in technology transfer made them experience more difficulties than they would have in a native language-speaking environment.

Working culture differences in the background of the two organizations also impact the efficiency of the technology transfer process. PM-C indicated: “Chinese employees are used to ad hoc tasks, and they do not mind working extra hours, but this working pattern didn’t seem very feasible to Dutch employees”. This difference in working culture led to misunderstandings from both sides. The Chinese employees

sometimes thought that it took too long to get feedback from the Netherlands side, while the Netherlands employees thought that the Chinese employees were too pushy. These misunderstandings might lead to complaints and affect the bilateral employees' working experience.

But the cultural differences also brought benefits. For example, it seems like employees who are interested in cultural differences are often willing to spend more time on communication. At the same time, Employee-CP thought the negative effects of cultural differences on this ITT can be minimized if both sides show respect for the other culture. The application of proper HRM practices can also play a role. For example, communication barriers and differences in work environments can be overcome by recruiting employees with language advantages and employees with experience in international companies. Soft skills such as communication skills and the knowledge related to cultural differences acquired through training can also help to collaborate.

PM-C and PM-N said it took considerable time for them to synchronize the organizational structures of both sides at the beginning of the project. But still, there were some differences in the organizational structure and the division of labor between the bilateral teams. In the Netherlands, there were many more employees, so working tasks were often split up into departments and assigned to a dedicated person. In contrast, on the Chinese side, due to the relatively small number of project staff, one person was usually responsible for a module independently or even must collaborate or work across modules. That made some tasks go unattended or extra time spent looking for the counterpart accountable for the study, leading to even more inefficient work.

Employees with previous experience working in multinationals were preferred in this project as it seemed like most department managers in the project had experience working in foreign companies. PM-C described the need to take the cultural background into consideration when recruiting. “We are happy that our employees, especially those who need to interface directly with the Netherlands side, have good language skills. In order to minimize cultural barriers, I took that into consideration in the first stage of recruiting.”

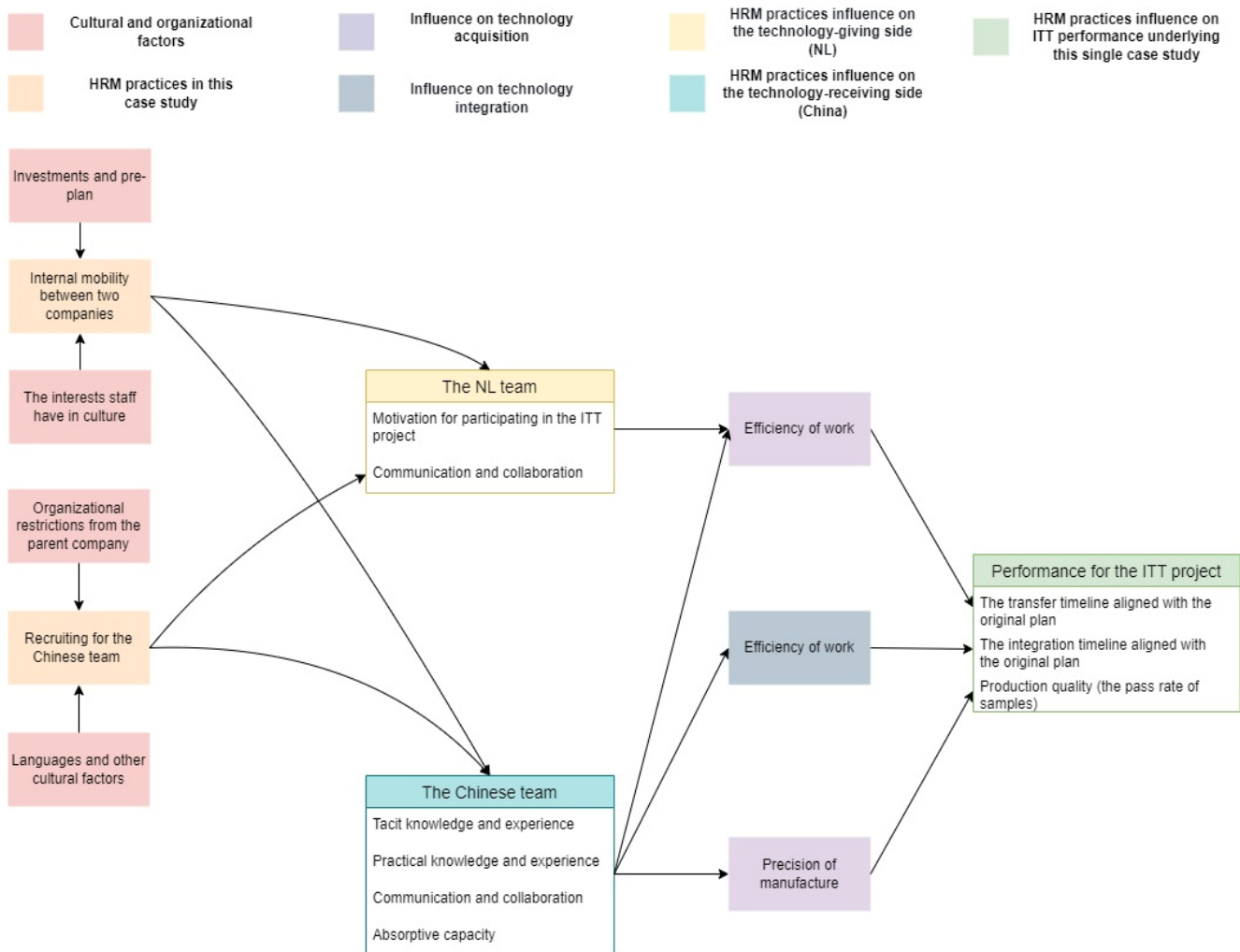
The setting of performance-related rewards was related to the remuneration system under the national mainstream. PM-C said: “The different average base salaries between two different countries had an impact on the implementation of extrinsic performance-related rewards. As the Netherlands' side has a relatively higher salary, so the extrinsic rewards might have less impact on them.” The point of view had been proved by interviews with employees. The Dutch employees are generally less motivated by money. Also, PM-C mentioned that performance-related rewards

within the project team also received institutional and organizational restrictions from the parent company. Compared to extrinsic rewards, the implementation of intrinsic rewards is almost independent of organizational and cultural factors.

The most significant cultural factor affecting training was the language. There is no doubt that misunderstandings in training caused by language can affect the effectiveness of training.

### 4.5 The effects of HRM practices on the ITT performance

In the context of the case studied, how the application of HRM practices regarding staffing, training, and performance-related rewards influence this ITT project performance will be introduced in this section.



**Figure 8. How staffing affects ITT performance in this single case study**

Recruiting and internal mobility are the two main used staffing-related HRM

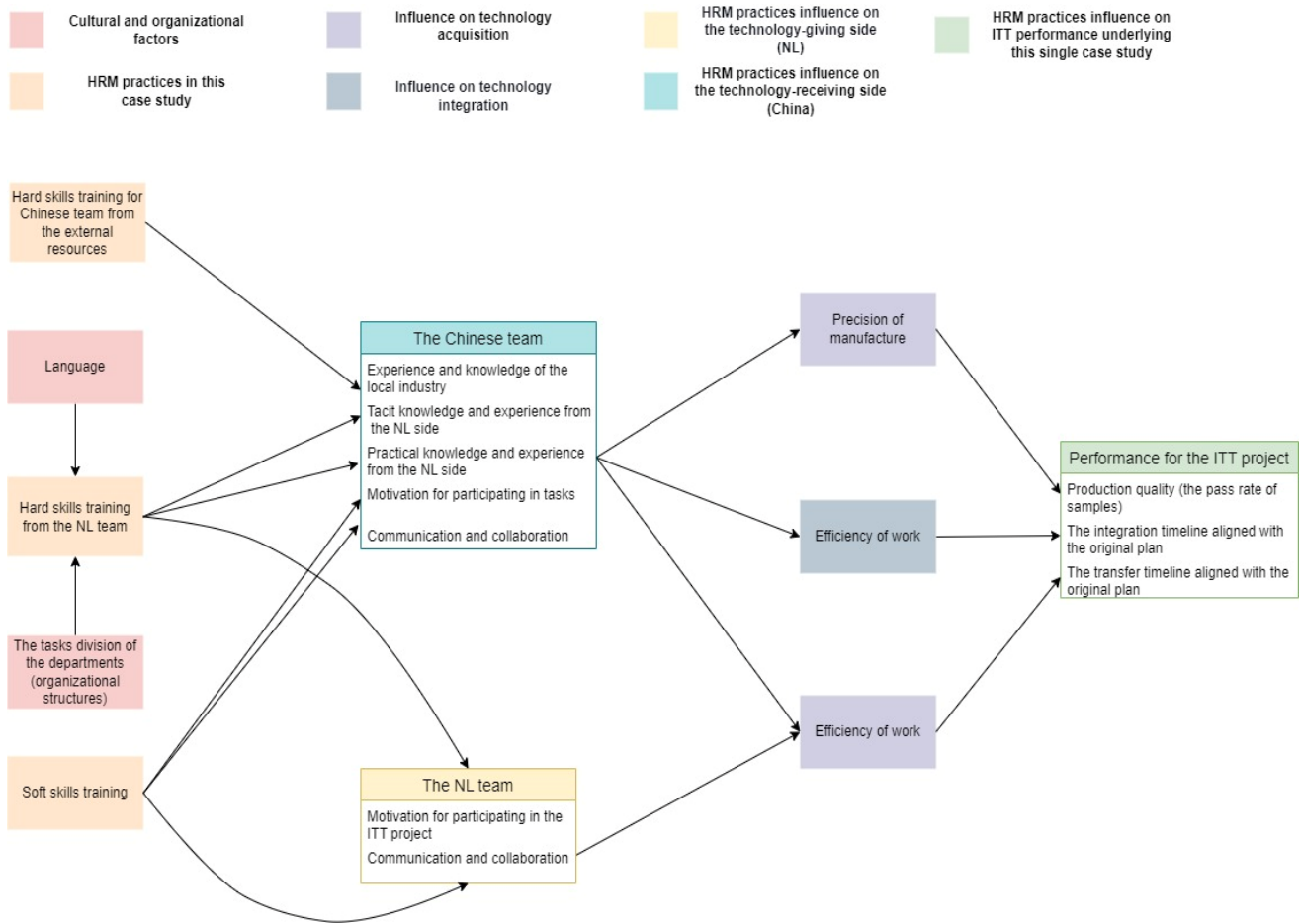
practices in this case study, they both influence the staff structure within the joint project team.

As shown in figure 8, recruiting is influenced by organizational factors (constraints from the parent company, etc.) and cultural requirements (requirements for cross-national work). PM-C said: “It was not only my decision when posting a new job advertisement, I have to consider the budget, the restrictions from the company, and so on.” And he said the most important thing he thought about in a candidate was not the experience or abilities, but whether this person can fit well with the demands of multinational tasks (cultural differences).

Recruiting employees with good language skills and relevant experience can ease the learning curve in this project. PM-C said: “Those employees are considered with better learning abilities for those technologies.” Therefore, they can improve the absorptive capacity of the organization. And the related experience they bring to the organizations can play an important role when facing tasks. Employee-CP thought recruiting people who are relatively compatible with the culture of the bilateral organization was also conducive to a good atmosphere of cooperation, therefore, increasing the efficiency of communications.

Staff relocation between two organizations helps to place human resources in the right position. The right internal mobility can help with knowledge transfer, especially the transfer of tacit knowledge. PM-N thought the moved employees can play an important boundary-spanning role since they can bring practical knowledge and experience to the technology-receiving team. The experience they have can help the technology-receiving part understand technology better and quicker. However, Employees-CS thought that the benefits brought by relocating employees were significantly small compared to the cost, and she thought the advantages could also be brought by recruiting and training. However, Employee-CP disagreed: “Transferring staff from the technology-giving side, no matter in what form, is the most efficient way to help us gain the experience from them by making more interactions easily.” After the employees are moved, those unsolved or unclear questions that cannot be clearly addressed from the technology-receiving side were solved efficiently.

The cultural factors can affect the willingness of the transferred employees. Another realistic factor is, that transferring employees across national boundaries usually means higher capital investments. It is important to consider whether those staff relocations are beneficial and how to maximize their benefits.



**Figure 9. How training affects ITT performance in this single case study**

As shown in figure 9, language is the most important cultural factor that influences the efficiency of training. Better communications can bring better performance for training while good-conducted training can also help with better collaborations later on.

Another factor is the organizational structure. If the job duties were assigned to different departments in two organizations, organizing training would be hindered. Because the departments from the technology-giving side might think it was not their duties to train the employees of other departments on the technology-receiving side.

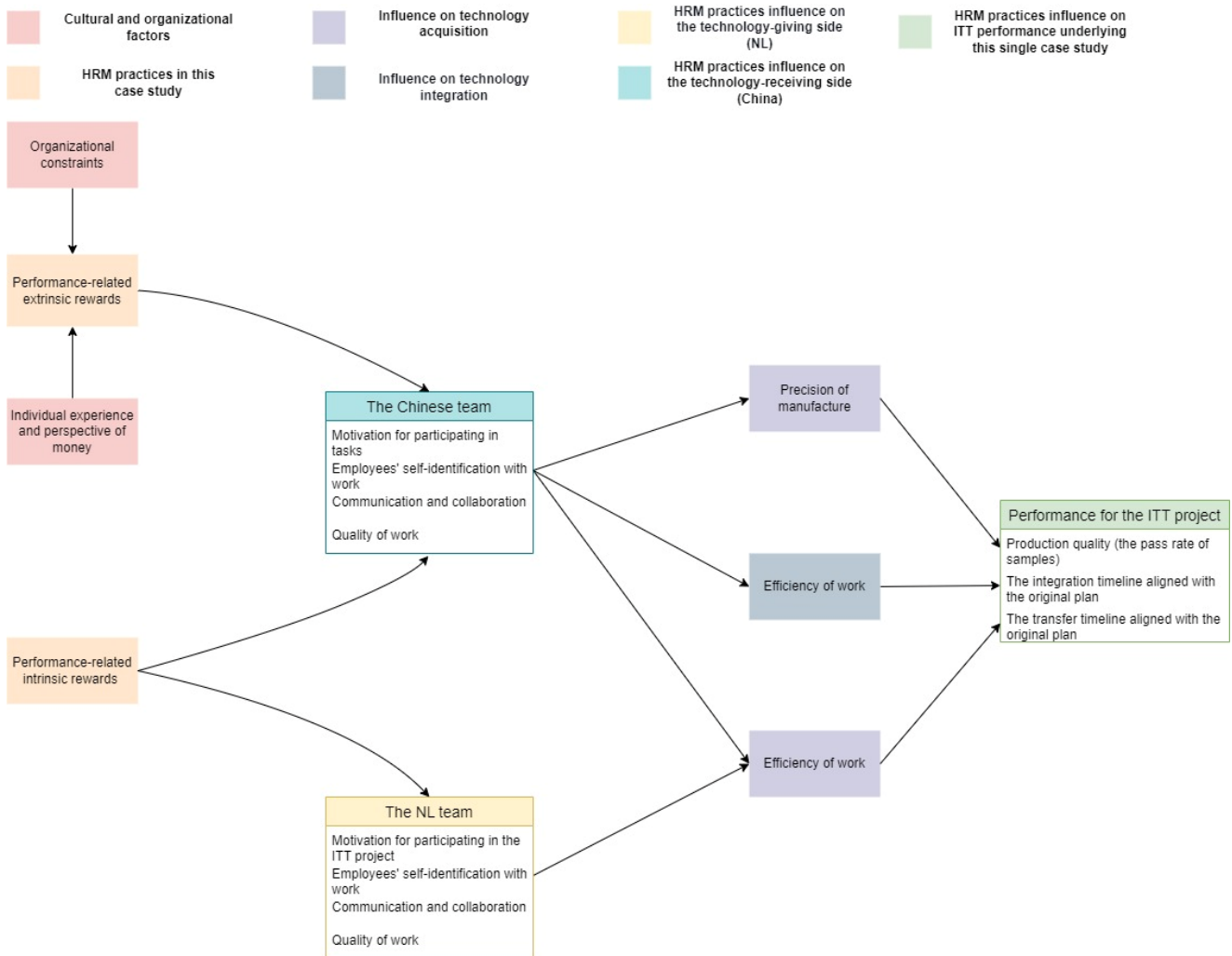
In the technology acquisition phase, hard skills-related training was given by the trainers from the technology-sending side and the trainees on the technology-receiving side. This training helped the transfer of tacit knowledge to the technology-receiving side. Employee-CP said “Without the offline training I received in the Netherlands, it might take a long while for me to understand all the technologies. But when I can see the process and be taught by experienced staff, I learned quickly.” Employee-CQ, who stayed in China and only learn things from documents and videos,

complained that sometimes she found it was difficult to figure out how some procedures work on the Technology-giving side. No doubt, employees from the technology-receiving side can gain knowledge and be more efficient in their work through training, thereby helping organizational productivity. However, the outcomes of short-term training may not be obvious, especially for tacit knowledge. Employee-CP said: “I always found new things to be trained, and I need to practice. So, more time in training will be beneficial.” Long-term training is needed from the technology-receiving side to have a better comprehension of the technology. Also, the results of training need to be evaluated better, otherwise, the training may be less efficient and bring little benefits.

Training across departments and nations is likely to support the coming collaborations since it provides a chance in communicate. As Employee-CP said, “Training also can affect cooperation within the two organizations, since the training itself is a process of communication, making two organizations closer.” Hard skills training conducted with the cooperation of both teams is a way of bilateral communication. Employee-NT said: “I enjoyed the time I spent when training people, it made me know more about how the project in China is now.” Other employees from the technology-giving side also agreed that although training may give them extra tasks, they still feel motivated through giving out training. More exchanges between the two sides can help them know each other better and therefore conduct better collaborations afterward, which may fasten the acquisition process.

In the technology integration phase, the training from external sources such as outside experts with local industry experience can guide the technology-receiving side through the challenges of the integration process. Employee-CQ and PM-C both said external support was needed when they were trying to align technology with the local policies.

Soft skills training related to the cultural and organizational factors of both sides can be beneficial for collaborations with the two organizations. Employee-NS said when he was new to a technology transfer project, the training in project background allowed him to get to know the core needs of the technology transfer and, therefore, understand his tasks sooner. Employee-NS and Employee-CP agreed that training related to collaboration was beneficial in helping the two organizations work together. However, Employee-NP, Employee-NQ, and Employee-NT thought soft skill training was not as efficient as hard skill training because the results of soft skill training were too abstractive. People can argue that soft skill training brought them advantages but usually, no one can describe it comprehensively.



**Figure 10. How performance-related rewards affect ITT performance in this single case study**

Likewise, the bonus system is also affected by organizational factors, especially the performance-related rewards in the parent company.

Appropriate intrinsic rewards can bring a sense of satisfaction and motivation to project members, making employees aware of their value and encouraging them to approach their work with a more positive attitude. Intrinsic rewards can be a good incentive for both sides, especially the technology-giving side. PM-N said: “Everyone in this team is pretty motivated when they found their efforts are really influential for the Chinese team, making them more willing to take charge of tasks and complete tasks with better performance.”

The role of monetary incentives is controversial. Employee-CP believed that rewards were the most important way to influence employee motivation. “The establishment of performance-related rewards can affect employees’ motivation and even employee retention.” But his argument was not supported by all other

interviewees. Although all employees agreed that receiving specific monetary incentives gave them a sense of identity, employees with different personal experiences and different values of work had different attitudes towards rewards. The interview includes a ranking question: "What do you value most in work?" The results showed that employees with relatively less working experience often overlooked the influence of rewards among people with more experience. For some employees, extrinsic rewards are maybe not as effective as intrinsic rewards in motivating them. For example, Employee-NS said the feeling of satisfaction that work brought to him gave him the motivation of taking on tasks. Employee-NT said he didn't really care much about the rewards he can receive from this project. Rewards can be a benefit, but even without them, he can still be motivated to do his work. Employees-CQ also said: "After all those years of working, I have already realized that work is not always for money. I am satisfied with the salary I can earn, the feeling of satisfaction I can get from work is more valuable for me."

Performance-related rewards can also sometimes harm overall project performance. PM-C said: "I don't want to relate everything to rewards. Because it can cause employees to focus too much on their tasks rather than choosing to collaborate with someone or deal with sudden tasks. Including all tasks in a project in the performance system from the beginning is impossible, the technology transfer process necessarily needs to take account of teamwork and unexpected tasks." However, the evidence of this opinion was not shown within this project.



## 5. Discussion

In the case study, HRM practices (staffing, training, and performance-related rewards) helped form a highly skilled and motivated workforce that helped share, explore, and create resources and knowledge for ITT. Aligned to the literature study, the research with the single case study indicated that HRM practices can boost the acquired team's absorptive capacity (Minbaeva, 2005), therefore enhancing the process of overall ITT. HRM practices also aided in resource allocation (Heslop et al., 2001) and encourage inter-organizational cooperation (Liu & Meyer, 2020) for this ITT project. Project managers, rather than HR departments, were largely responsible for structuring HRM practices in project-related ad hoc organizations because they knew better about what the project needed.

For this case study and given the manufacturing background of the technology and the strategies company adopted for localizing the whole production, the most effective HRM practices are regarded as staffing and training. This is primarily because these two HRM practices directly help the acquisition process of tacit and practical knowledge. Training-related employees generally considered training to be the most important HRM practice. The project manager on the technology-receiving side, on the other hand, thought staffing was more important because he looked at problems from a more macro perspective and ignore some practical details.

Staffing-related HRM practices can promote ITT performance in this case study, however, the costs and gains were under the constraints of the parent company and needed to be balanced. Recruiting the right people for the technology-receiving side helped communication and cooperation within the two organizations, brought experience and knowledge into the organizations, and increased the technology-receiving unit's ability to absorb new technologies (Judge & Ferris, 1992). Employee relocation also played a significant role in technology acquisition, by delivering expertise and knowledge from the technology-giving side. However, it should also be considered carefully since internal mobility overseas requires a large amount of investment.

In this case, training initiatives are proved to be crucial methods for knowledge acquisition (Lyles & Salk, 1996) and they can improve cooperation and communication while boosting employees' willingness to take part in technology transfer (Liu & Meyer, 2020). In general, the adoption of training has complemented the technology transfer process with the knowledge of various domains required for technology transfer. Aligned with what Foxon (1993) and Kupritz (2002) suggested, hard skills training in this ITT project seems to be more effective than soft skills training. When combined with the expertise and knowledge that technologies need,

hard skills training—whether it comes from internal or external sources—can enhance both the effectiveness and performance of the technology acceptance and integration. Outside training is highly beneficial in the technology integration phase, while training between the two firms occurred more frequently in the technology adoption phase. Soft skills training worked more in conjunction with hard skills training to improve performance levels. Because it was not directly tied to the technology requirement and there was no efficient review mechanism. Soft skills training was proven to be indispensable in fostering communication and collaboration between the two enterprises, although it seems way less important.

Performance-related rewards in this case can boost employee motivation by raising awareness of their work, which in turn can promote efficiency in both individual work and organizational performance. Intrinsic rewards played a bigger role than assumed. There were no significant negative effects of performance-related rewards on collaboration, despite project managers' concerns about the damage of fully integrated employee performance with rewards. Same as Brauns (2013) said, untransparent and unclear rewards systems were not highly motivating for employees since they were hardly aware of what they can gain from their work. Although Rahman et al. (2011) and others believed that incentives played a significant role in technological transfer, many employees in these two companies asserted that cultural interaction was more vital because it decided whether they could be happy at work. Also, in this case, the correlation between learning capacity and similarity between compensation policies of student and teacher firms, proposed by Lane and Lubatkin (1998), was not discovered.

## 6. Practical Implications

The practical implications will adopt a contingency view of HRM. The single case study has limitations in generalization due to the social complexity, however, the findings of this study can offer recommendations and directions. The directions and recommendations should take the business context into consideration.

Training is considered to be the most effective HRM practice in this technology transfer. This conclusion can be extended to similar manufacturing or other practical technology transfers because those technologies usually have a high demand for the experience or tacit knowledge from the technology-giving side, and training can be a continuous practice in aiding that. When the implementation conditions of training cannot be met, staffing can help meet the conditions or optimize the learning process.

Project managers should make employees more aware of how HRM practices work in organizations based on the results of the case study. When designing the HRM practices on the ITT team, on the technology-receiving side, HRM practices may concentrate on enhancing the absorptive capacity to effectively absorb the knowledge transferred. Intuitively this makes sense, as absorptive capacity increases the knowledge-acquiring performance will increase as well. For the technology-giving side, the focus can be on increasing the motivation of their employees. In the context of this use case M&A, the original organizations of the technology-giving side usually still need to work for the daily production activities as those employees in this case. Therefore, the tasks related to technology transfer are extra work for those employees. How to reduce those employees' resistance to these tasks needs to be considered when similar situations occur, ensuring that the technology-giving side maintains sufficient motivation for the related tasks. In countries from a similar geo-political area such as the European Union employee motivation has similar effects (Lorincová & Hitka, 2018). But this perhaps cannot be generalized to countries that do not share such similar properties (e.g. ITT between two developing countries across continents), as work culture in different countries may result in employee motivation having a different effect on the ITT process. But still, this provides a great empirical indication of where future research can exploit the finding of this case study.

For technology acquisition in this case, good cooperation and communication are the basic conditions for both explicit technology transfer and tacit technology transfer. This conclusion can be applied in most cross-culture technology transfers. HRM practices, therefore, should focus on how to facilitate bilateral communication and cooperation. For technology integration in this case study, HRM practices play a more prominent role on the technology-receiving side since they play the main role at this stage. HRM practices (e.g. hard skill training from external experts, recruiting people

with relevant skills) can bring in external forces that aid technology integration.

The cultural and organizational factors are complicated. For the cultural and organizational differences between the two organizations, some measurements can be taken in this case. For example, to eliminate misunderstandings with information sharing, one information-sharing system that is accessible to both parties can be built. This system can incorporate requirements from participating sides to ensure the system is able to meet the function as expected. Some cross-cultural activities can be helpful to create a similar cultural environment or at least make two parties understand each other's culture. These cross-cultural activities can be performed online and thus are not constrained by physical distances separating the participating firms. Solid alliance management capabilities need to be employed to enhance the compatibility between two organizations allowing technology-transfer interacting organizations to complement their resources and capabilities.

Recruitment for the technology-receiving side in this case can try to involve relative employees from the technology-giving side. Because it can not only test the candidates' communication abilities but also help in finding the candidates with skills needed for the transferred technologies since the receiving side (NL side) knows better about the needed skills for the ITT. It can be applied when the technology-giving side has the motivations in the participant. Recruiting decisions in this project team were made mainly by the project manager, however, it may be better to be more up to the department manager to decide (while taking others' suggestions into consideration). Department managers know better about the challenges and detailed tasks, so they can better know what kind of candidates may better match their current needs. However, this primarily depends upon the organizational hierarchy and roles and responsibility division within that organization. Thus, this can be done with the consultation of the HR manager and project managers to decide who will partake in this role. Employee retention is also important for the long-term benefits, as the experience that employees gain during the technology transfer phase also often comes into play later in the technology integration process and the later daily manufacturing work.

For employees, especially those on the Netherlands side, unplanned training tasks can interfere with their work and create resistance among them. A clear understanding of the responsibilities of the bilateral departments, so as to prepare a well-defined initial training plan may help project managers with avoiding situations like this. If bilateral communication were brought in the development of training plans, the plans may also be better made since the misunderstanding can be eliminated. The technology-giving side may know better about the technologies' requirements, while the technology-receiving side knows better what the Chinese team needs. In the selection of personnel to receive and give training, as they did in the case, giving

priority to employees' interests and abilities in cross-cultural communication may be beneficial. For such employees, training will become more of an interest than a burden. At the same time, the training strategies can be aligned with the employees' individual development, this may be especially motivating for employees who have high career pursuits. When employees find that training also helps their future career development, their attitude towards training might be more positive as some employees mentioned in their interviews. Hard skills training given by the Netherlands' side, in this case study, was carried out in the real manufacturing lines. If this condition cannot be met in other cases with complicated processes/machines /backgrounds, it may better also be carried out in a similar working environment because training in a fully consistent environment helps trainees gain experience quickly. And, when those trainees start their work on the technology-giving side, they can easily notice what is wrong with the required environment. The results of hard skills training in this case may be viewed from the perspective of hard skills results and can be tied to personal performance. In general, production-related techniques can mostly be judged by experienced employees by the quality of the product produced by the trainees. Soft skills training can be carried out in various and more interesting forms. Also, trying to conduct soft skills training with both sides at the same time, such as organizing cultural exchange activities, can help the employees achieve more bilateral interactions in this case.

The setting of performance-related rewards needs to be clear to employees in this case. In most technology transfer projects, not only how incentives can be used to improve employee performance, but also how they can be used to promote employee cooperation should be considered. Designing a reward system that links the performance of both sides to facilitate cooperation might be helpful in this organization. The idea is that employees from two sides can work together and achieve certain goals to gain some rewards. The rewards would be more attractive if those consider the cultural and organizational background. The two organizations can adopt different rewards and reward systems due to organizational and cultural differences. However, the design should always avoid potential cultural or organizational conflicts. But for those organizations that merge and align a lot in HRM structures, the reward systems should better be the same to avoid possible negative attitudes on one side. Bilateral employees can also be encouraged to give intrinsic rewards to the other side. The affirmation of the technology-giving side may give the employees from the technology-receiving side more momentum. The appreciation by the technology-receiving side may also motivate technology transfer activities.

## 7. Limitations and Future Research

The limitations of this research are the following:

1) Generalization. Business activities are always complex. It is difficult to guarantee that research on the relationship between HRM practices and technology transfer performance would lead to the same conclusions in all cases. The qualitative analysis brings more descriptive details, but the limitation is that it cannot always be generalized to larger populations with the same degree of assurance as those from more quantitative analyses. This is owing to the fact that it is not determined if the research's findings are statistically significant or the result of chance.

2) The limitations of the sample. This study uses a single case analysis, which is a small sample. The benefit of a single case study is that it can be carried out with more careful research. However, evidence generated from multiple case studies is stronger and more reliable and can clarify whether the findings the results are valuable. For the interview, this study attempts to achieve the diversity of the interviewee sample, but, still, the limitations are there with a small number.

3) The limitation of the case itself. As of the end of the study, questions about the performance of technology transfer were not well answered due to the project's current phase. As described by the project manager, because the technology transfer is still going on, the results of the technology transfer can be expected but haven't happened yet. The indicators of the technology transfer performance of this project will take some time to it can be analyzed. In addition, the case does not discuss the financial influence of the HRM practices because, in the context of the case, economic benefits are temporarily put aside and not discussed when implementing the HRM practices. In other business cases, however, financial factors are usually important.

Regarding future research, we suggest the following directions:

1) Towards Generalizability - Our single case analysis brings forth various interesting findings, however, they are fairly limited in terms of their generalizability. To complicate the matter further, HRM practices within each organization tend to be unique. Despite this limitation, we can find innovative ways to achieve generalizability, below are a few suggestions -

a) Past research has intriguing insights into converging and diverging theories for HRM practices (Farndale et al., 2017) within and across countries. Summarizing these converging aspects of prior scientific literature and subsequently correlating them with our findings will be a great initial step towards generalizability.

b) Another way to achieve generalizability is to increase the sample size of the study itself. To optimize the selection of samples and achieve maximal generalizability one can consider taking single samples from countries that share a geo-political region or perhaps where the socio-economic structures are similar. For this, existing literature can be consulted. In general, as sample sizes increase the more statistically significant the results will be and the more acceptable toward generalizability.

c) A within the organization and between the organization study can be performed to establish the clear differences between participating organizations. This will not only help us dichotomize the practices between the organization but also provide data points for specific contexts, which we can then utilize to identify organizations with similar contextual differences. Subsequently, using this information we can identify samples that match the contextual clues and apply the finding of the studies to those cases as well.

2) Researchers can try to investigate more kinds of HRM practices. For example, HRM practices such as labor relations can also play a role in promoting ITT performance.

3) Future research can extend or test these models to more cases in different contexts. Studies about technology transfer in different fields can be conducted. Business background can also be a variable. More formations than M&A can also be a study direction. Closely integrating the implementation of HRM practices with different company strategies can give a contingency prescriptive for HRM.

4) The characteristics of technologies can have influences. Technologies with more R&D or innovation processes can have different requirements in HRM practices.

## 8. Conclusion

The case study can provide some practical experience for other researchers trying to build the connections between HRM practices and international technology transfer (ITT) performance. In the context of M&A, an empirical analysis of an ITT is conducted in the medical manufacturing industry between a developing country in the East (China) and a developed country in the West (The Netherlands). It is discovered that HRM practices related to staffing, training, and performance-related rewards can lead to better performance in ITT in the context of M&A. Case study qualitative analysis showed that both recruiting and moving and training can alleviate the difficulties of transferring tacit knowledge, while performance reward is more related to employee motivation. HRM practices also benefit the communications and collaborations in ITT. In this case, it was found that HRM practices are integral to organizational behaviors. According to the results, the design and implementation of HR practices need to be adjusted according to the context and technology transfer strategy needs. But that in itself is not enough as cultural and organizational factors also play a vital role and should be considered when designing the ITT process. Cultural differences, language, organizational structure, and restrictions of the parent company may affect the implementation or the effectiveness of HRM practices. But at the same time, employees' interest in culture may also be one of the motivations for their participation in ITT.



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# Appendix 1: Interview Questions for Project Managers

## General questions:

- 1). Can you introduce me your personal professional experience and your current position in the organization?
- 2). What is the ITT project you are taking over?
- 3). What is the timeline/general plan for the whole project? (Step 1/Step2/...)
- 4). Can you introduce the current status of the ITT project/ which step is the ITT project now?
- 5). How do you measure the performance of this ITT project? Do you have KPIs for that?
- 6). Which part of ITT project is more difficult? Technology acquisition or technology integration?

## HRM practices related questions:

- 1). HRM practices can be defined as activities/measurements required to perform the routines of human resources in an organization, such as recruiting, training, staff development, compensation management (rewards according to performance), and encouraging employee involvement in decision making. So, can you give me a general view of the HRM structure for this ITT project?
- 2). What kind of HRM practice do you use most in the ITT project?
- 3). What kind of HRM practice do you think is most beneficial in technology acquisition?
- 4). What kind of HRM practice do you think is most beneficial in technology integration? (Technology-receiving side)
- 5). What are the differences between the HRM practices used in this project and the HRM practices in general companies?
- 6). Do you use different HRM practices in technology acquisition process and technology integration? Why?
- 7). Did the cultural and organizational differences between the two organizations cause some difficulties in ITT projects? If so, how did you deal with those difficulties?
- 8). Did differences in bilateral organizational structures create problems with HRM integration? What measures did you take to help merge the cooperative organization between two countries?

## Staffing:

- 1). Did you hire new employees for this project? What departments are they belonging?
- 2). Did you move staff from one side to another? What is the moving for? (What are they going to help with this project after moving?)
- 3). From your point of view, what kind of staffing works better in this ITT project?
- 4). How organizational (and cultural) factors may affect staffing decisions in this project?

### **Performance-related rewards:**

- 1). Can you introduce me the main structure (on both sides) of performance-related rewards on ITT projects? What types of rewards do you use in the ITT projects (For example: Intrinsic Rewards/ Extrinsic Rewards...)? In your view, which type is most beneficial?
- 2). Did the reward systems of employees change in the ITT projects?
- 3). How can the reward system facilitate the ITT process?
- 4). Do the performance-related rewards on both sides have consistent effects? If not, which party is more motivated by that? For the less-motivated part, how can the design of the structure be better?
- 5). Will the performance-related rewards system make employees promise things they can't?
- 6). How organizational (and cultural) factors may affect performance-related rewards decisions in this project?

### **Training:**

- 1). What kind of training do you think is more important in ITT projects? (Training on hard vs soft skills/training on knowledge vs training on operation vs other training)
- 2). What kinds of training have been done in the ITT projects, and how were the outputs? What part of the ITT project did those training for? (Are those directly related to the technology or not?)
- 3). Who received those training? Are they skill-related?
- 4). Who gave those training? Were they communicated well? How to evaluate the quality of the training?
- 5). Were the outputs of training included in employees' performance-related rewards design? If so, did it somehow motivate the employees?
- 6). How organizational (and cultural) factors may affect training related decisions in this project?

## Appendix 2: Interview Questions for Employees

- 1). Can you introduce me your current role and job in the ITT project?
- 2). Can you introduce me some of your current tasks in the ITT project?
- 3). What obstacles are encountered in your job with the ITT projects? What do you think are the reasons for those difficulties?
- 4). Are you aware of the HRM practices used in the ITT project? Which one is the most efficient one in your point of view?
- 5). What do you value most in work? Rate the following: 1. Realization of personal value. 2. Job recognition 3. Money 4. Job completion 5. Good work environment and effective communication 6. Promotion
- 6) Has this ITT project affected your job role?
- 7). Did you receive any training due to the requirement of ITT projects? What are they?
- 8). What did you gain from those training and how did you use those skills gained in ITT projects? (for those who received the training).
- 9). Did/Will you get extra rewards for the tasks you completed in ITT tasks? If not, what is your motivation for those tasks?
- 10). Can you give me an example of the rewards you received from completing a task?
- 11). How did you balance your daily work and the extra tasks from ITT projects?  
(For the technology-giving part)
- 12). With work related to the ITT projects, which HRM practice influenced your motivation the most in daily work? Which HRM practice benefited your efficiency the most in daily work?
- 13). Can you introduce some examples like the cultural differences, organizational structure differences, and other aspects that affect the international technology transfer process?