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Knowledge Management in Global Consultancy Firms: A Case Study of CGI

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ABSTRACT

Recent research emphasizes the importance of organizational knowledge for organisations to sustain a competitive advantage. Therefore, the literature of knowledge management and knowledge sharing has expanded in recent decades. MNCs are the organisations which have received most attention, since their structure is favourable to create and leverage knowledge. MNC consultancy companies are an often-researched category due their dependability on knowledge. However, little comparative cross-cultural research on how knowledge is managed by consulting MNCs has been conducted. This study investigates how and why a global IT consultancy MNC manages and shares its knowledge within and across culturally different subsidiaries, through an embedded case study that investigates knowledge management and knowledge sharing practices at a Swedish and an Indian subsidiary of CGI.

The report shows how knowledge management practices of a global consultancy firm are conducted. A learning and development-model serves as a means which allows the company to distribute its knowledge management related activities across different global subunits. Furthermore, the report finds that the subsidiaries handle certain knowledge management practices defined by the HQ in different ways and apply them to their local context. The identified factors as for why there are discrepancies, are the Characteristics of Knowledge and Billability or Learning for the Future. Finally, the Consultancy Knowledge Management Model (CKM-Model) is created from the above factors and theory. This helps answering how and why knowledge management is handled in a global consultancy firm, although more research on the applicability to other cases is needed.

Key words: Knowledge Management in MNC (Multinational Corporation), Knowledge Management Systems, Knowledge Sharing, Consultancy Company

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1 INTRODUCTION

This chapter introduces the reader to the research subject by first outlining the general knowledge management background, which is complemented with a more consulting specific aspect. The problem discussion is breaking down the literature and highlighting the research gap. Subsequently, the purpose of the study is presented, and the research question posed. The introduction ends with the delimitations.

1.1 BACKGROUND

In the ever more dynamic business world, the importance of knowledge is increasing (Du Plessis, 2007). The knowledge of the firm, that is knowledge of the employees and knowledge that is built into its structures, is argued to be the only way a firm can achieve a competitive advantage (Birkinshaw, 2001). Due to its importance it is of little surprise that there is an extensive amount of literature covering knowledge management (e.g. Alavi & Leidner; 1999; Davenport et al., 1998; Bhatt, 2001.) Similarly to the tangible resources of a firm, knowledge is viewed as a crucial resource for any firm (Bogner & Bansal, 2007). The knowledge-based view (KBV) further strengthens that argument, by stating that knowledge-related resources contribute with a higher likelihood to a firm's sustaining performance than the tangible resources (Grant, 2002; Bogner & Bansal, 2007). Moreover, the KBV proposes knowledge to be the primary source of value, whereas the value creation of a firm is explained by its ability to amass and use knowledge (Hsu & Sabherwal, 2011).

However, knowledge is oftentimes not evenly spread within a firm. This is the reason why knowledge sharing among organizational units, teams, and individuals is highly important for an organization to capture and create their knowledge (Wang et al., 2012). This not only helps an organization with the resource structuring but also with the capacity building, which are both known to increase the overall firm performance (Wang et al., 2012).

The topic of knowledge management, its creation and distribution has specifically expanded with a focus on multinational corporations (MNCs) (e.g., Gupta & Govindarajan, 2000). This, since the MNCs possess a unique structure that Bartlett and Ghoshal (1989) compare to a "differentiated network". Within that structure, knowledge can be generated in different parts of the organization and later on internally distributed to related parts (Minbaeva et al., 2014). Especially the ability to learn from its different national contexts and distribute these learnings

throughout the whole organization, is found to be a key advantage of MNCs (Bartlett & Ghoshal, 1989; Gupta & Govindarajan, 1991). As Bartlett and Ghoshal (1989) emphasize, the way an MNC is structured and organized can either facilitate or impede internal flows of knowledge. Therefore, the competitive advantage of an MNC is further reliant on its ability to manage and facilitate the inter-subsidiary knowledge transfer (Minbaeva et al., 2014).

Only transferring knowledge from one unit to another is not creating any value for the firm, if the receiving unit is not using the newly created knowledge. The success factor is therefore found to be in the receiving unit actually utilizing the knowledge in its own operations, on top of acquiring the knowledge (Minbaeva et al., 2014). Organizations can introduce several internal policies, processes, and structures that facilitate the intra-organizational learning (Inkpen, 1998). As pointed out by Ghoshal and Bartlett (1988), the knowledge flows in an MNC are facilitated by organisational units actively communicating with each other.

An important factor for knowledge sharing is the organisational culture, since that is guiding how people interact with each other (De Long & Fahey, 2000). According to Hendriks (2004, p.7) these two elements share a reciprocal relationship: *"Knowledge defines culture and culture defines knowledge"*. The organisational culture is seen as an essential reference element when trying to define knowledge. Furthermore, the cultural understanding is also valuable in understanding the knowledge (Schein, 2010). The organisational culture influences the degree of knowledge sharing activities happening within a firm (Hendriks, 2004). The way an organisation is implementing its style of management and following its existing management model is further shaped by the culture (Hendriks, 2004). Even though the organisational culture is a very important factor for knowledge sharing, it is not the only factor impacting it (e.g. Ipe, 2003).

The different characteristics of organisational knowledge have a strong influence on the distribution of knowledge as well (Ipe, 2003). The organisational knowledge is often conceptualized as consisting of explicit and tacit knowledge (Werr & Stjernberg, 2003). Explicit knowledge, "know-what", is recorded in the formal language, internal documents and databases, and it is easily codifiable and reusable (Smith, 2001). Tacit knowledge, or "know-how", is action-oriented knowledge based on practice and hard to express (Smith, 2001). Tacit knowledge mostly resides within the individual and is therefore hardly found in books, manuals or files (Smith, 2001). Important for the creation of organizational knowledge is a complementary use of both explicit and tacit knowledge (Nonaka & Takeuchi, 1995).

Once knowledge is created, there are two different types of interactions to share it. The two types of interaction are formal or informal knowledge sharing activities (Taminiau et al., 2009; Ipe, 2003). Formal knowledge is often in an institutionalized form as it is embedded in handbooks, documentations or educations (Nonaka, 1994). Informal knowledge sharing exists alongside the formal knowledge sharing, although the informal activities are not necessarily formed with the explicit intent of knowledge sharing (Taminiau et al., 2009; Ipe, 2003). Rather, it is often shared unconsciously and without any specific intention (Swap et al., 2001).

1.2 KNOWLEDGE SHARING AND MANAGEMENT IN CONSULTING FIRMS

Consulting firms are seen as knowledge intensive firms (Alvesson, 1993), since they function as some type of brokers for knowledge, both between their branches and their clients (Werr & Stjernberg, 2003). Their success is therefore heavily reliant on having an effective management of intellectual capital (Apostolou & Mentzas, 1999). The management consulting firm creates their services through using a combination of explicit and tacit knowledge (Werr & Stjernberg, 2003). Therefore, knowledge sharing is highlighted by many authors as being important and problematic in consulting firms, among others Alvesson (1993), Dunford (2000), Werr and Stjernberg (2003), Boussebaa et al. (2014).

Bessant and Rush (1995), find that firms need external input sooner or later and that consulting firms help disseminate best practices in the industry. This is practically the reason for why consultancies exist. Hendriks (2004) shows that knowledge sharing is a process, where knowledge transfer is a part of it. This means that consultancy MNCs need to be able to transfer their knowledge between their branches, to act in their capacity of knowledge brokers (Werr & Stjernberg, 2003). The consultancy firms also need to tap into external knowledge and gain these inputs, which they can achieve through tapping into the client knowledge (Fosstenløkken et al., 2003). When having acquired the knowledge there is a new problem which becomes evident, that is, how knowledge is shared internally. Boussebaa et al. (2014), find that global consultancies, and consultancies in general, often rely on Knowledge Management Systems (KMS), to facilitate the sharing of knowledge internally. The KMS are used to disseminate documentation and more explicit forms of knowledge in particular (Boussebaa et al., 2014).

However, Boussebaa et al. (2014) find that KMS are not necessarily used only as originally intended. Rather, they are often used more as an advertisement board for the individual consultant's knowledge or to find the correct person to talk to. Instead of using KMS as a way to immediately appropriate new knowledge, as they were first believed to be used (Boussebaa et al., 2014). A reason for that, is believed to be that consultants often face time constraints (Taminiau et al., 2009). Taminiau et al. (2009), find further challenges in that innovation and new ideas are mostly created in informal knowledge sharing with other consultants and superiors (Taminiau et al., 2009). Which could be another reason for the secondary use of KMS.

There are problems with knowledge sharing in consultancy firms, as the individuals value hinges on their perceived knowledge. This can lead to knowledge hoarding and trying to gain first-mover advantages in creating their own companies to move on new opportunities (Taminiau et al, 2009). Multiple authors found that the incentive systems exacerbate these challenges when the incentives are geared toward billability and billable hours rather than knowledge sharing (e.g. Dunford, 2000; Boussebaa et al., 2014; Taminiau et al., 2009).

1.3 PROBLEM DISCUSSION

As above mentioned, the important role of knowledge within the organizational setting is well emphasized in the literature (Argote & Ingram, 2000). Especially knowledge management within the MNC context is omnipresent (e.g. Gupta & Govindarajan, 2000; Minbaeva et al., 2003; Johnston & Paladino, 2007; Foss & Pedersen, 2004). The reason for this, is the organizational structure of MNCs. Which are viewed as differentiated networks, and therefore found to represent a favourable structure for knowledge sharing (Bartlett & Ghoshal, 1989). Their structure allows them to transfer and leverage knowledge in other parts of the organization (Bartlett & Ghoshal, 1989). The ability to manage these knowledge flows represents a competitive advantage of an MNC compared to other firms (Minbaeva et al., 2014).

A strain of MNCs that are especially reliant on effectively managing intellectual capital to succeed are consultancy firms (Apostolou & Mentzas, 1999). These firms are generally described as "the archetype of a knowledge-intensive firm" (Alvesson, 1993; Starbuck, 1992). Hence, it is of little surprise that there exists an extensive amount of studies carried out with a focus on the consultancy business sector in general (Werr & Sjernberg, 2003). However, Donnelly (2008), argues that even though knowledge management is of fundamental importance for consultancy firms, research gaps are still existing in regard to how the

organizational and employee knowledge is being managed by these firms. Boussebaa et al. (2014) support this statement and further find that there exists only little research on the horizontal knowledge flows in what they call "global professional service firms", in effect consultancies and other service firms such as auditing. After having conducted his research at two European sub-units, Donnelly (2008), calls for more comparative international research on how knowledge is managed by consulting MNCs. Donnelly (2008) especially highlights the need for conducting a study involving culturally and geographically more distant sub-units. Furthermore, the research gap is found to be, whether knowledge management procedures conform to universal standards, or if they are conducted differently in culturally and geographically distant subunits of global consultancy firms. Donnelly (2008) further believes this gap can be bridged through conducting a cross-cultural study of different subunits of a global consultancy firm. The authors have not found studies covering this research gap with two global consultancy subsidiaries being the subject of study, since Donnelly highlighted it in 2008. The authors believe that the most likely explanation for this is that it is difficult to gain access to multiple branches of consultancy firms.

1.4 Purpose and Research Question

The purpose of this study is to address the above-mentioned research gap, existing in the cross-cultural comparison of knowledge management practices of a global consultancy firm. Through this, the report aims to evaluate how and why knowledge management practices are conducted within the global MNC, and how they are applied by the different subsidiaries, and to what extent the local context is influencing these practices. Furthermore, the study aims to qualitatively assess the MNC's ability of distributing organizational knowledge among and within different subsidiaries. The study accomplishes this by exploring existing differences and similarities in regard to knowledge management and sharing processes in the Swedish and Indian subsidiaries of a large global IT consulting firm, called CGI Sweden and CGI India respectively.

To fulfil the purpose of this study the following research question was posed:

"How does a global consultancy firm handle knowledge management and knowledge sharing in an international setting, and why is it handled in that manner?"

1.5 DELIMITATIONS

First, time constraints faced throughout the research process were a limiting factor of this study. Moreover, the point in time of conducting the study at the case company was further limited due to a predetermined time frame.

Second, the selection process of the respondents represents a further limitation of this study. One factor that limited the number of respondents was their relevance for the case and research topic, noticeable in only conducting three interviews with CGI India. Time and ability to access, as well as willingness to participate by the respondents, influenced this process and limited the number of respondents. The authors still believe that CGI India could be captured to a large extent through cross-referencing with CGI Sweden respondents that work closely together with CGI India.

Thirdly, to understand the overall picture of CGI's knowledge management, the authors access that through the Swedish subsidiary, not from the perspective of the actual HQ. To mitigate the potential Swedish subsidiary bias, the authors have had access to the Management Foundation (see Heading 3.3.2 for methodological use and Heading 4.1.1 for an explanation what the Management Foundation contains), which is the framework of CGI as a whole, from the HQ perspective.

2 THEORETICAL FRAMEWORK

This chapter presents a review of existing theories within the literature areas relevant for this case study. At the beginning the organizational knowledge is defined and its importance for the firm is highlighted. Later on, the favourable structure of MNCs regarding knowledge creation and distribution is described. Followingly, literature from the field of knowledge management is reviewed, where knowledge management is defined. In addition, critical factors that ensure successful implementation of knowledge management in organizations as well as possible reasons for potential failure of knowledge management are evaluated. The next part of the chapter consists of an in-depth description of knowledge sharing, and the factors influencing knowledge sharing activities. This is followed by a discussion of knowledge management and sharing in consultancy firms in particular, including KMS. Lastly, the chapter ends with the Theoretical Analysis Model.

2.1 DEFINING CHARACTERISTICS OF ORGANIZATIONAL KNOWLEDGE

Even though "information" and "knowledge" are oftentimes used interchangeably, a clear distinction between them can be made (Nonaka, 1994). Machlup (1983) defines information as being a flow of messages or meanings that might add to, change or restructure knowledge. Knowledge is organized and created by the flow of information, which is anchored on the beliefs and commitment of the holder (Nonaka, 1994). Information becomes knowledge once a person is able to process and make use of it. Once the knowledge is written down and articulated in words, text or graphics, it is converted to information (Alavi & Leidner, 2001). The organizational knowledge is characterized as consisting of two parts, which are referred to as tacit and explicit knowledge (Werr & Stjernberg, 2003). Explicit knowledge is knowledge that can be transmitted in systematic, formal language (Polanyi, 2009). Furthermore, Smith (2001) describes explicit knowledge as "know-what", that is recorded in internal documents, databases, and hence easily codifiable and reusable. Tacit knowledge on the other hand, is hard to communicate and formalize since it has a personal quality (Polanyi, 2009). It can be described as "know-how" and is action-oriented knowledge based on practice that resides within the individual, which makes it hard to express (Smith, 2001). Nonaka & Takeuchi (1995)

found that a complementary use of explicit and tacit knowledge is a prerequisite for creating organizational knowledge.

2.1.1 The Importance of Organizational Knowledge

Organizational knowledge is argued to be fundamentally important for an organization, since it allows the organization to create a competitive advantage (Argote & Ingram, 2000). The position of a firm within an industry and its structure, as highlighted by Porter (1980), are found to be less explanatory for firm performance than the organizational knowledge perspective (Williams, 1998). Organizational knowledge is further believed to be the only enduring source of advantage in a fast-moving and increasingly competitive world (Birkinshaw, 2001). Hence, knowledge is viewed as a vital resource to a firm, similar to the tangible resources. The KBV further emphasizes the importance of knowledge-related resources by stating that they contribute with a higher likelihood to a firm's sustaining performance than the tangible resources (Grant, 2002; Bogner & Bansal, 2007). The firm's ability to amass and make use of knowledge explains its value creation ability (Hsu & Sabherwal, 2011). However, oftentimes knowledge is not evenly spread within a firm, which is the reason why the creation and sharing of knowledge across organizational units, teams, and individuals is of utmost importance for any organization (Wang et al., 2012).

2.1.2 MNC Structure and its Potential for Knowledge Sharing

Knowledge, its creation and sharing, is of special importance in regard to MNCs. Due to the organizational structure of MNCs, these firms can facilitate and leverage internal knowledge flows. An MNC's structure is further described as "differentiated networks", where knowledge is generated in different parts of the organization and later on transferred to related parts (Bartlett and Ghoshal, 1989). Thus, the ability to internally distribute, create and facilitate knowledge and its flows on an inter-subsidiary level is one of the major competitive advantages of MNCs in general. However, the sheer distribution of knowledge from one unit to another, is not sufficiently valuable, unless the receiving unit is making use of the transmitted knowledge in its own operations (Minbaeva et al., 2014).

2.2 KNOWLEDGE MANAGEMENT

Knowledge that is not properly managed within an MNC is regarded as useless and obsolete (Ansari et al., 2012). Hence, organizations must implement a series of processes which allow

them to manage the knowledge in a way that adds value (OuYang, 2014). Even though there seems to be consensus among researchers that knowledge management's duty is to facilitate knowledge flows within organizations, knowledge management is being described in many different ways throughout the literature. Alavi & Leidner (1999) however, describe knowledge management as consisting of systematic and organizationally specific processes that acquire, organize and communicate tacit as well as explicit knowledge of employees. This is conducted in a way that other employees can use it to be more productive and effective in their work. According to Birkinshaw (2001), knowledge management consists of three main elements. First, informal knowledge flows between individuals should take place, which have to be encouraged by the firm. Second, systems that are able to codify knowledge possessed by a certain individual and allow for sharing of the knowledge among other employees within the organization are required. However, a problem highlighted by Birkinshaw (2001), is that oftentimes sharing of the most valuable knowledge is hard since that type of knowledge tends to be of a tacit nature and therefore is hard to write down and express. Thus, personal interaction is a useful measure to share this knowledge and make it a firm asset. The third element of knowledge management is that a firm needs to tap into new knowledge from outside the boundaries to update and renew the knowledge base (Birkinshaw, 2001).

2.2.1 Prerequisites for Successful Knowledge Management Implementation

2.2.1.1 Knowledge Based Culture

The organizational culture comprises common values, norms and beliefs of members that make them feel correlated (Ansari et al., 2012). With respect to knowledge, the organizational knowledge is defined by the organizational culture, since these two aspects are found to share a reciprocal relationship (Hendriks, 2004). The organizational culture is an essential reference element when trying to define and understand the knowledge (Schein, 2010). Thus, knowledge management and its level of success is highly dependent on the value and appreciation it has within the organization (Ansari et al., 2012). Having or creating a knowledge based firm culture is an essential prerequisite for a firm that wants to succeed with knowledge management (Davenport & Prusak, 1998). Such a culture can be reinforced by the leaders and the way they behave (Burns et al., 2013). The Knowledge Based Culture factor can be seen in below Table 1.

2.2.1.2 Structure

The organizational structure (see Table 1) is highly important for successful knowledge management (Ansari et al., 2012). The organizational structure not only determines how decisions are taken, it also determines the responsibilities for resources, humans, materials and organizational processes (Ansari et al., 2012). To increase the knowledge cooperation and distribution these structures must be organized in a flexible way (Walczak, 2005). Ruikar et al. (2006), state that a horizontal organizational structure allows for more flexibility since prompt and competitive changes in regard to the business environment can be undertaken. Therefore, it is the horizontal structure that represents a more suitable structure for the information era (Ruikar et al., 2006). Another important factor in creating a structure that allows for successful knowledge management is that the communication channels need to be smooth (Gupta et al., 2000).

2.2.1.3 Strategy and Leadership

Knowledge management must be in line with a firm's organizational strategy to be successful (Sunassee & Sewry, 2003). The knowledge management strategy that allows for best practices to be distributed across different subunits needs to be planned and implemented among the whole organization (Ansari et al., 2012). Furthermore, the leaders take on a vital role in implementing knowledge management throughout the organization (Choy & Suk, 2005). They are the ones responsible for creating a knowledge management strategy that not only aligns with the business strategy but also allows the organization to create value out of it (Mathi, 2004). Moreover, it is the leader's duty to allocate resources in regard to labour force, money and time to make knowledge management successful (Yew Wong, 2005). The Strategy and Leadership factor can be seen in Table 1 below.

2.2.1.4 HR

One of the social enabling factors of knowledge management are the employees, since they are the driving force behind knowledge creation and distribution. Moreover, they are the building block of any firm and therefore utterly important for it to be successful (Adenfelt & Lagerström, 2006). Hence, employees that are operating as end users of the knowledge management technology and systems must be skilled and in possession of the right expertise and organizational culture for it to be a success (Ruikar et al., 2006). According to Soliman and Spooner (2000), it is the human resources' duty to form the knowledge management team, to accelerate the knowledge management program, norm and reform the rules of knowledge

management, to assure the execution of an efficient knowledge management. The human affairs of an organization are therefore considered as a major factor for knowledge management within the literature (Ansari et al., 2012). The HR factor can be seen in Table 1 below.

2.2.1.5 IT

The IT infrastructure of a firm (see Table 1), is considered to be a key helper as well as an enabler of knowledge management (Davenport et al., 1998). IT's importance for knowledge management can be explained with its ability to store the knowledge repositories, increase transmission and access to knowledge and information, and allow for organizational group interactions (Holt et al., 2007). Furthermore, IT can also serve as an enabler in the creation process of knowledge, especially within a scientific environment (Alavi & Leidner, 2001). However, to allow for a successful knowledge management the IT must be constructed in a user-friendly and simple way which allows employees to use it without the help of IT support (Hasanali, 2002).

Prerequisites for Successful Knowledge Management
Knowledge Based Culture
Structure
Strategy and Leadership
HR
IT

Table 1 Prerequisites for Successful Knowledge Management

2.2.2 Failing Factors of Knowledge Management

2.2.2.1 Unwittingly Conducting Knowledge Management

Organizations have been known to manage their knowledge since a long time ago. Their formal organizational structures are usually built in a way that allows knowledge exchange to happen among the ones in need. More informal structures such as social networks consisting of people that meet up for lunch are further mechanisms of knowledge transfer (Birkinshaw, 2001). However, the sheer transfer of knowledge does not necessarily have an impact on firm performance. Arvidsson (1999), found that in many cases knowledge does not flow from best to worst performing business unit, which means that oftentimes worst-case practices instead of

best-case practices are being transferred between units. Hence, knowledge sharing is oftentimes happening in most of the firms, but rather in an ad hoc than a systematic way. In other words, knowledge management performed in a way that does not help the firm to evaluate "what it knows", can rarely be successful (Birkinshaw, 2001). The failing factor of Unwittingly Conducting Knowledge Management can be seen in below Table 2.

2.2.2.2 IT Used as a Substitute for Social Interaction

Birkinshaw (2001) argues that one failing factor for knowledge management is that people rely too heavily on IT. Oftentimes knowledge databases of firms are poorly used, instead the employees would prefer talking to colleagues rather than reading up on it on the company intranet. Even though IT provides valuable tools for interacting with colleagues, the social interaction between people is an important vehicle for learning and hence builds the foundation of knowledge management. Therefore, IT regarded as a substitute rather than a complement for knowledge management is at risk to fail (Birkinshaw, 2001). This also follows Bhatt (2001), where the interaction between the prerequisites are necessary. That is the interaction between IT or technologies, people and techniques are seen as necessary to not fail in the knowledge management. The failing factor of IT Used as a Substitute for Social Interaction can be seen in below Table 2.

2.2.2.3 Neglecting to Generate New Knowledge

Usually firms focus heavily on transferring and sharing their best practices among their organizational units. Even though that is of high importance in increasing the operational efficiency, the creation of new knowledge should not be neglected (Birkinshaw, 2001). This also follows the ideas of Fosstenløkken et al. (2003), that creating new knowledge is important, and one suggested way to achieve this is through tapping into client-learnings. Chan and Chau (2005), find that an organisation's knowledge management often is not nurtured or is outright neglected in regard to creating new knowledge, which often leads to failing knowledge management. The failing factor of Neglecting to Generate New Knowledge can be seen in below Table 2.

2.2.2.4 Introducing Techniques without Understanding

When introducing new techniques for knowledge management purposes, such as a new community of practice, the idea and concept behind it might sound tempting even though it is only about making people communicate with each other, which is a very traditional technique.

Whenever these newly framed techniques are not better understood nor implemented than the traditional ones, they represent a possible failing factor for knowledge management (Birkinshaw, 2001). Following the thoughts of Boussebaa et al. (2014), introducing for example centres of excellence or global training centres could become a failing factor if not properly understood and managed. This failing factor of Introducing Techniques without Understanding can be seen in below Table 2.

Failing Factors of Knowledge Management
Unwittingly Conducting Knowledge Management
IT Used as a Substitute for Social Interaction
Neglecting to Create New Knowledge
Introducing Techniques without Understanding

Table 2 Failing Factors of Knowledge Management

2.3 KNOWLEDGE SHARING

Knowledge sharing is defined as the action through which employees diffuse information to other employees across the firm (Bartol & Srivastava, 2002). Ipe (2003), describes knowledge sharing as being the act where knowledge is made available to other people within the same organization. According to Dawson (2000), the ultimate goal of knowledge sharing is the sharing of knowledge among employees and the distribution of knowledge to organizational resources and assets. Hendriks (1999), highlights the importance of knowledge sharing by stating that the movement of knowledge, which resides within individuals, creates a link between individuals as well as the organization, where it is finally converted into a competitive and economic value for the firm. Furthermore, the interaction between people possessing diverse knowledge can enhance an organization's innovation ability to a higher degree than otherwise possible (Cohen & Levinthal, 1990). However, Davenport & Prusak (1998) found that a lack of knowledge sharing in organizations has proven to represent a major barrier for effective knowledge management.

A prerequisite for knowledge sharing is a relationship between two parties, where one party possesses the knowledge while the other is willing to acquire it (Hendriks, 1999). Ipe's (2003), understanding of knowledge sharing between two parties is that individuals' knowledge is understood, absorbed, and used by the other parties, which means it is a conscious behaviour.

Hendriks (1999), further defines the process of knowledge sharing as consisting of two sub-processes. First, the knowledge owner follows an externalizing behaviour. Secondly, the knowledge winner is assumed to have an internalizing behaviour. The internalization can appear in different ways, it might be through learning by doing or reading and understanding the knowledge saved in the formal knowledge base. However, there are barriers such as space and time, as well as barriers that occur through different linguistic, cultural and social conceptual frameworks (Hendriks, 1999).

2.3.1 Factors Influencing Knowledge Sharing Activities

2.3.1.1 Characteristics of Knowledge

The characteristic nature of knowledge, which is tacit or explicit, as well as the value attributed to it can have a significant impact on how knowledge is shared within the organization (Ipe, 2003). Tacit knowledge is by its nature hard to codify, communicate, and use without the owner of the knowledge (Nonaka, 1994). Hence, tacitness of knowledge is seen as a natural impediment to successful knowledge sharing within the organization (Von Hippel, 1994). In contrast to tacit knowledge, explicit knowledge is easier to communicate and disseminate (Schulz, 2001). Therefore, it is known to have a higher ability to be shared among individuals. However, not every kind of knowledge that falls into the categorization of explicit knowledge is easily shared in an organization (Ipe,2003). Explicit knowledge that is standardized, general and context independent, also known as rationalized explicit knowledge, is shared easily since it has already been separated from its source (Weiss, 1999). Embedded explicit knowledge, which is personalized, professionally sensitive, narrowly applicable, and context specific is less likely to be shared with the same simplicity between individuals (Weiss,1999). Even though the tacitness or explicitness of knowledge can give some indication on how it is shared, the value that is attributed to the knowledge also plays a major role in the way it is shared (Ipe, 2003).

2.3.1.1.1 Potential Knowledge Hoarding

Knowledge is often perceived as valuable by the organizations and individuals and so is its ownership (Jarvenpaa & Staples, 2001). In several situations, individual knowledge is associated with individual reputation, status, and career prospects and therefore individuals can claim emotional ownership of that knowledge (Andrews & Delahaye, 2000; Jones & Jordan,

1998). Especially, in organizations where the knowledge of an employee becomes his or her primary value source towards the organization, sharing of that knowledge can decrease the employee's value and therefore diminish his or her motivation to participate in knowledge sharing activities (Alvesson, 1995). When knowledge creates power, people tend to hoard knowledge instead of sharing it (Gupta & Govindarajan, 2000). The characteristic nature of knowledge, the value attributed to knowledge as well as potential knowledge hoarding make up the Characteristics of Knowledge factor as seen in below Table 3.

2.3.1.2 Motivation

One motivator to share knowledge is reciprocity, especially when individuals realize that the additional value for themselves is dependent on the degree to which they share their knowledge with other individuals (Hendriks,1999; Schulz, 2001). Schulz (2001), found that the reception of knowledge from colleagues stimulates a reciprocal knowledge flow in the sender's direction, which is a major motivator to share knowledge in communities of practice. In such communities, knowledge sharing is found to result in increased levels of expertise and can further provide recognition (Bartol & Srivastava, 2002; Orr, 1990). However, reciprocity can also present a threat to knowledge sharing, especially when individuals feel like they are asked to share a large amount of valuable knowledge without receiving any, or only very little, knowledge or benefit in return (Empson, 2001; Ipe, 2003).

Another crucial motivator for knowledge sharing is the relationship between sender and recipient. This relationship consists of the two elements that are trust and the status and power of the recipient (Ipe, 2003). Andrews and Delahaye (2000), found that when trust is absent, the formal knowledge sharing processes and practices were not sufficient in encouraging individuals to engage in knowledge sharing with colleagues. Reasons for low levels of trust can amongst others be that employees perceive that their colleagues are not equally contributing to the knowledge sharing community (Kramer, 1999). According to Huber (1982), the status and power of the recipient further influences the motivation to share knowledge. Huber (1982) found that employees with low power and status tend to distribute knowledge to the employees with higher status and power, whereas these employees tend to distribute knowledge towards employees on the same level as themselves.

Furthermore, rewards for knowledge sharing are found to increase the probability of knowledge sharing activities (Gupta & Govindarajan, 2000; O'Reilly & Pondy, 1980). These studies suggest that changes in an organizations incentive system led to individuals feeling more

encouraged to share knowledge. Bartol and Srivastava (2002), found that a monetary reward system for knowledge sharing has an impact on the individual contribution to an organization's knowledge base, the formal interactions between and within teams, as well as knowledge sharing activities across units. However, no evidence has been found that knowledge sharing from informal interactions was affected through a monetary reward system, instead intangible incentives as the enhancement of expertise as well as recognition by other individuals were found to be a motivating factor (Bartol & Srivastava, 2002). The reciprocity and relationship between sender and receiver of knowledge as well as the rewards and incentive systems for the factor of Motivation in below Table 3.

2.3.1.3 Formal and Informal Sharing Opportunities

Taminiau et al. (2009) and Ipe (2003) highlight that there are both formal and informal opportunities that an organisation can create to share knowledge, that is Formal and Informal Sharing Opportunities (in below Table 3). Formal opportunities are represented by for example structured work teams, technological systems and training programs. Rulke and Zaheer (2000) name this as purposive learnings, which is a way for a firm to share knowledge. These are explicitly designed to disseminate and acquire knowledge and provide employees with a structured context where they can share knowledge (Rulke & Zaheer, 2000; Ipe, 2003). Channels directed towards purposive learning such as electronic networks are capable of connecting numerous individuals and ensure a fast dissemination of knowledge (Ipe, 2003). However, knowledge sharing that results out of formal opportunities is often of explicit nature (Nonaka & Takeuchi, 1995). Even though purposive learning plays a major role in allowing for knowledge to be shared, the literature highlights that the majority of knowledge shared is through an informal setting (e.g. Pan & Scarbrough, 1999; Truran, 1998). Informal opportunities, also called relational learning, consist of social networks and personal relationships that stimulate knowledge sharing (Rulke & Zaheer, 2000; Nahapiet & Ghoshal, 1998). They allow for a face-to-face communication, which itself is seen critical for trust, respect and friendship building and finally the willingness to share knowledge (Nahapiet & Ghoshal, 1998). Especially within communities of practices knowledge is shared and located in collaborative, complex informal networks (Brown & Duguid, 1991). The findings of Stevenson and Gilly (1991) reveal that even if clear communication channels within an organization are existing, employees prefer to make use of informal relationships.

Factors Influencing Knowledge Sharing Activities
Characteristics of Knowledge
Motivation
Formal and Informal Sharing Opportunities

Table 3 Factors Influencing Knowledge Sharing Activities

2.4 Knowledge Management and Sharing in Consulting Firms

Global consulting companies are described as being "the archetype of knowledge-intensive firms" (Werr & Stjernberg, 2003; Alvesson, 1993). They are seen as network-like firms that have the ability to create strong horizontal knowledge flows (Ghoshal & Bartlett, 1997). Werr and Stjernberg (2003), find that management consultancies work as brokers for knowledge. Using a combination of explicit and tacit knowledge, the management consulting firm creates their services (Werr & Stjernberg, 2003). Therefore, knowledge sharing is highlighted by many authors as being important and problematic (Alvesson, 1993; Dunford, 2000; Werr & Stjernberg, 2003; Boussebaa et al., 2014). One aspect which does not appear to be treated by any of the above-mentioned authors, is the fact that consultants usually face time constraints. According to Taminiau et al. (2009), consultants often lack time to share knowledge, more specifically new innovative ideas due to the high number of required billable hours. Løwendahl et al. (2001), describe the capability to learn from successfully completed projects, carried out globally, and distribute these learnings throughout the firm as an important core competence of a consulting firm. By diffusing the knowledge across the other units within the organization, the consulting firm can continually improve innovation and effectiveness levels (Løwendahl et al, 2001). Means that have been developed by consultancy companies in order to facilitate the distribution of knowledge include global training centres, global networking, and centres of excellence amongst others (Boussebaa et al., 2014).

A further source of knowledge that consulting companies can tap into, especially in regard to knowledge creation, are the clients they work with (Fosstenløkken et al., 2003). Knowledgeable and sophisticated clients are considered to be a key factor for developing new knowledge (Fosstenløkken et al., 2003). Firstly, because the consultants can directly learn from clients and their know-how. Secondly, the consultants can learn from their coworkers when returning from

the client's site with new and unanswered questions (Fosstenløkken et al., 2003). Thirdly, the learnings from the service delivery can increase the collective knowledge as well as the firm's overall service delivery processes (Fosstenløkken et al., 2003).

Tapping into clients' knowledge is one way to develop new knowledge, but to distribute existing knowledge other approaches can yield promising results. One such approach of distributing knowledge within consulting companies are the mentoring programs, which allow the companies to leverage personal knowledge and share knowledge between teams and projects. This should be structured to fit the case to reap the most benefits (Bjørnson & Dingsøyr, 2005). Armour and Gupta (1999), argue that mentoring programs can in many cases be more effective than written documentation and formal trainings. Especially in the IT consulting business, professionals need to constantly apply up to date information and stay up to date with the latest technology. Therefore, it is important to not only rely on formal trainings but complement these with hands-on and face-to-face assistance such as mentoring programs (Armour & Gupta, 1999).

An important factor for a well-functioning mentoring program is the selection of the mentor itself. The mentor needs to be well respected and trusted by the mentee or team, whereas the team or mentee needs to feel comfortable to ask for advice and pose questions. Furthermore, the mentors must have a high level of experience in order to generalize development techniques and apply such to future situations (Armour & Gupta, 1999). Openness towards new approaches and the willingness to change what they have done in past projects to fit new situations, is additionally found to be an important attribute of mentors when following the thoughts of Armour and Gupta (1999). Moreover, constant training of the mentors, both formal and informal, is important to ensure that mentors are in possession of the right soft- and hard- skills for their assignment. Additionally, the company needs to have a clearly defined mentoring plan, where the responsibilities are defined both for the mentor and the mentee. Finally, the mentoring programs are found to benefit the company the most when: a team is lacking experience, the technologies being applied are rapidly changing, and it is a challenge to apply the technologies to "real-world projects" (Armour & Gupta, 1999). Bjørnson and Dingsøyr (2005), also find that mentoring can reduce risks of knowledge erosion when an experienced employee quits, as the employee has shared their experiences and thoughts with the mentee(s).

2.4.1 Knowledge Management Systems

In conjunction with the above-mentioned factors, Knowledge Management Systems (KMS) are also seen as an important and widely used tool for knowledge management in global consultancy companies (Werr, 2012). Alavi and Leidner (2001), describe them as IT-based information systems that can be applied to manage organizational knowledge. KMS are developed to enhance and support organizational knowledge creation, storage, transfer, as well as application processes (Alavi & Leidner, 2001). Even though KMS cannot address and solve all the knowledge management issues, it can be a valuable support and an important enabler (Alavi & Leidner, 2001). KMS can support employees in various different ways by providing: Databases where experts within a field can easily be found and contacted; virtual working environments where people can work together and share knowledge; access to documentation and information from successfully concluded projects; valuable information about customers and their needs and behaviour (Alavi & Leidner, 2001).

When KMS are implemented correctly they not only allow organizations to be more flexible but also respond quicker to dynamic market conditions. Furthermore, they can increase innovation levels and productivity as well as facilitate decision making processes (Harris, 1996). Moreover, shorter proposal times, improved overall project management, increased staff participation, and overall cost reduction are found to be additional benefits that come along with a well-functioning KMS (Alavi & Leidner, 1999). However, where a clear strategy to implement new, and improve existing KMS is absent, the benefits of a KMS will be absent as well (Alavi & Leidner, 1999). Hence, organizations need to create a culture where employees are motivated to constantly engage in knowledge sharing activities. According to Alavi & Leidner (1999), motivation can also be created by introducing a reward and incentive system, which companies such as McKinsey, a global management consultancy firm, already have applied. At McKinsey, the number of publications as well as the frequency with which a consultant is making use of the KMS is an important factor in future promotion decisions (Alavi & Leidner, 1999).

2.5 THEORETICAL ANALYSIS MODEL

Below a visualization of the whole Theoretical Analysis Model is presented in Figure 1, that is built up throughout the course of this chapter. The Theoretical Analysis Model represents the most important factors of the theoretical framework of this study, which can be seen

individually in Tables 1, 2, and 3. These factors are complex and often interrelated, so as to avoid unnecessary confusion for the reader, the authors have decided to present the factors as a listing type of model. This model in Figure 1 is later on used to interpret and analyse the empirical findings.

As illustrated in below Figure 1, the theoretically most important parts, the Prerequisites of Successful Knowledge Management, that are identified in relation to this report are: Knowledge Based Culture, Structure, Strategy and Leadership, HR, and IT.

The most important or likely Failing Factors of Knowledge Management identified from theory are, as illustrated in below Figure 1: Unwittingly Conducting Knowledge Management, IT Used as a Substitute for Social Interaction, Neglecting to Create New Knowledge, and Introducing Techniques without Understanding.

Finally, the most important Factors Influencing Knowledge Sharing Activities from theory are, as illustrated in below Figure 1: Characteristics of Knowledge, Motivation (to share), Formal and Informal Sharing Opportunities.

Theoretical Analysis Model
Prerequisites for Successful Knowledge Management
Knowledge Based Culture
Structure
Strategy and Leadership
HR
IT
Failing Factors of Knowledge Management
Unwittingly Conducting Knowledge Management
IT Used as a Substitute for Social Interaction
Neglecting to Create New Knowledge
Introducing Techniques without Understanding
Factors Influencing Knowledge Sharing Activities
Characteristics of Knowledge
Motivation
Formal and Informal Sharing Opportunities

Figure 1 the Theoretical Analysis Model

3 METHODOLOGY

The methodology chapter discusses the method used to conduct this study and write the report, as well as motivating the author's' choices through the use of relevant theory. The chapter starts with the research approach, followed by the single embedded case study, then discusses the data collection, thereafter the research process is described, followed by the quality of research, and finally the ethical considerations. The research follows a qualitative case study approach, utilising an abductive research methodology, and seeks to answer the research question through collecting both primary data and secondary data. The data was then analysed in conjunction with the theoretical framework. The whole process was done in such a manner as to increase the quality of research while keeping high ethical standards.

3.1 RESEARCH APPROACH

This research follows a qualitative case study approach. The aim of this study is to create an understanding of the knowledge sharing and knowledge management in an international setting, with the case company providing the context and further boundaries. The research question the authors want to answer through this study is the following: *"How does a global consultancy firm handle knowledge management and knowledge sharing in an international setting, and why is it handled in that manner?".* The authors find the boundaries between culture, local context, and strategic decisions to be unclear as these variables could affect each other. Following the thoughts of Yin (2002), the case study approach can be positively utilized when empirically researching "why" or "how" questions, particularly when "/.../ *the boundaries between phenomenon and context are not clear /.../*" (Yin, 2002 p.13). The authors' choice of a qualitative case study is in line with these arguments.

The authors found that knowledge management of a global consultancy firm, where two culturally distant subsidiaries are investigated, and location specific knowledge management practices and differences are evaluated and analysed, is lacking in the literature (Donnelly, 2008). Even though there exists a large number of researches in the area of knowledge management and sharing (e.g. Ansari et al., 2012; Birkinshaw, 2001; Alavi & Leidner, 1999), with many of them focusing on the MNC context, the above was found lacking. Following Eisenhardt's (1989, pp.548-549) arguments a case study is *"Particularly well-suited to new research areas or research areas for which existing theory seems inadequate."*, and further

useful in incremental theory building. The authors aim to develop the theoretical understanding in this field by applying a case study with multiple sources of information. Ghauri (2004) discusses that a case study should utilize multiple sources of information such as personal interviews and documentations. Following the ideas of Ghauri (2004, p.110), who argues that "*The main feature is therefore the depth and focus on the research object, whether it is an individual, group, organisation, culture, incident or situation.".* Building on these thoughts, a case study is found to be a suitable tool for fulfilling the aim of the report.

3.2 THE SINGLE EMBEDDED CASE STUDY DESIGN

The authors decided to carry out an "embedded case study", incorporating the analyses of an additional, culturally distant subunit complementary to studying the main unit. The main focus of the research was the Sub-Business Unit Sweden West (hereafter called CGI Sweden), however gaining insight into an Indian subsidiary (hereafter called CGI India) was seen to be a valuable tool for comparison. This led to insights and an extensive analysis of the overall case that would barely have been covered without the embedded case study design. However, the embedded case study tried to not over exaggerate the attention to the subunit, since it could lead to ignoring the holistic aspect of the case, which is in line with Yin (2014). Similarly, Verschuren (2003), states that even if the main focus is on a single case such as one Sub-Business Unit, an analytical comparison of separate sections may serve as a mean of gaining valuable insights about the whole organization.

According to Merriam (1998), a case study is required to be empirically descriptive, particularistic and heuristic. The empirically descriptive aspect of this study is found in the description of the current knowledge sharing routines and processes as well as the KMS in place at the case MNC. Evaluating the knowledge sharing activities in regard to the global setting of an MNC, the varying cultural settings and the dynamic industry the MNC finds itself in adds the particularity to the study. Finally, providing the reader with a progressive understanding of the investigated phenomena, that is the analysis that aims to provide valuable and concrete implications for the case organization's knowledge management and sharing routines, provides the study's heuristic nature. Thus, all the required aspects of a case study according to Merriam (1998) are fulfilled in this study.

3.2.1 Choosing the Case Study

The authors chose CGI as the case company, where two sub-units were chosen to be the focus of the study. The reason for selecting CGI as the case organization was due to access to internal resources, an understanding that knowledge management and sharing was a key activity, and a willingness and openness to have the practices studied. Drawing on the thoughts of Merriam (1998), the choice of the case company represents a convenience sampling. Furthermore, CGI is an MNC, and MNCs are seen as "differentiated networks" with a high potential to leverage knowledge and resources (Bartlett & Ghoshal, 1989). This in combination with CGI being in the consulting business, one of the archetypical businesses reliant on knowledge management (Alvesson, 1993), is seen as advantageous for the study. In addition to the consulting business itself, they operate in the IT sector, which is a fast moving and highly dynamic sector and is therefore even more reliant on knowledge sharing and knowledge management practices. Furthermore, by investigating knowledge management practices at two different subsidiaries of CGI, the authors were able to add an additional international layer. This was achieved by gaining access to Indian team members, that are working together with CGI Sweden. Thus, the use of an embedded-case-study approach further increases the understanding of the knowledge management in the global company, its international setting, and its subsidiaries in culturally distant countries.

The decision process of finding a suitable case enterprise started with an expansive screening process according to the previously mentioned criteria and the potential of getting access to interview partners and internal documentation in order to get an extensive understanding of how the organization is dealing with knowledge sharing, and why it is handling the knowledge management in the manner it does.

In sum, the authors believe to have chosen a suitable case study for the outlined research field, which is supported by Merriam's (1998) thoughts. Merriam (1998), argues that a case should be chosen on the condition that new findings can be gained from it, as it must not only match the purpose of the study but also allow for the research question to be answered.

Moreover, the case of this report can be characterized as being a critical case, since CGI Sweden is embedded in a dynamic environment and exposed to transformations, to which it has to correspond to (Yin, 2002).

3.3 Data Collection

3.3.1 Primary Data

3.3.1.1 Choosing of Interviewees

Through discussions with the contact person at CGI, the most beneficial interviewees were chosen, managers with insights, regular shop-floor employees, that is consultants, with different experiences both in years of working and teams, as well as the Indian team for a within-study comparison and differences in cultural settings. Throughout the study, new individuals were identified to be interviewed through continuous contact with the contact person as well as following leads that arose from the interviews that were conducted, the list of interview respondents can be seen below in Table 4.

Person	Title	Location	Date	Interview Duration	Medium
A	VP 1	CGI Sweden	6 February 2019	1h	Face-to-face
B	Management	CGI Sweden	6 February 2019	1h	Face-to-face
C	Consultant	CGI Sweden	20 February 2019	1h	Face-to-face
D	Management	CGI Sweden	20 February 2019	45min	Skype
E	Management	CGI Sweden	21 February 2019	1.5h	Face-to-face
F	Consultant	CGI Sweden	22 February 2019	30min	Face-to-face
G	Consultant	CGI Sweden	27 February 2019	1h	Face-to-face
H	Consultant	CGI Sweden	27 February 2019	1h	Face-to-face
I	Consultant	CGI Sweden	5 March 2019	1h	Face-to-face
J	Management	CGI Sweden	5 March 2019	1h	Face-to-face
K	Consultant	CGI India	7 March 2019	30min	Conference Call
L	Consultant	CGI India	8 March 2019	30min	Conference Call
M	Management	CGI India	14 March 2019	30min	Conference Call
N	Consultant	CGI Sweden	14 March 2019	1h	Face-to-face
O	VP 2	CGI Sweden	20 March 2019	1h	Face-to-face
P	Focus Group: VP / Management	CGI Sweden	20 March 2019	1h	Face-to-face

Table 4 Interview Respondent List

3.3.1.2 Interview Process

The interviews were conducted in a semi-structured way, that is through some guiding questions in an interview guide but allowing the authors to follow-up on interesting areas or press for further details in an interactive process (Bryman & Bell, 2015). The interviews, as seen in Table 4, were mostly 1 hour long, with some exceptions. The exception of one interview in Sweden where the authors were shown how to navigate some internal systems and internal documents, where the interview was about 1 hour and 40 minutes long. The interviews conducted with the Indian employees were approximately 30 minutes long due to time constraints as they operate in a different time-zone, which in turn limits the time they can

interact with the Swedish parts of the team. Interviews with the Indian employees were conducted through conference calls due to the distance and time constraints involved. The authors argue that through cross-referencing with managers and employees at CGI Sweden that work closely together with CGI India, the three short interviews with CGI India were enough to give the necessary data. The authors use CGI India to cross-reference and as a way to ensure the cross-cultural aspects are taken into consideration, and therefore the available time was deemed as enough to reach these aims.

Main themes being discussed with all respondents were in regard to the knowledge management, routines and processes of knowledge sharing, internal knowledge management systems and their usefulness, the respondent's experiences in international teams and projects, cultural and time zone impacts of working cross borders, and time constraints in documenting and reporting. More specific questions were posed to managers in regard to their involvement in creating routines, culture and environment meant to facilitate knowledge sharing and help in the international knowledge management. Toward the consultants, more thorough questions on experiences were asked and how their reality is. For the Indian employees, questions were posed in regard to knowledge management systems, knowledge management, knowledge sharing and sharing learnings, international teams, and working across time zones and cultures.

To minimize misunderstandings, the authors took notes during the interviews as well as recorded the interviews. Afterwards the interviews were transcribed while removing words such as "ehm", "eh", "so", and other similar words used for gaining room to think and elaborate in speech. After compiling the empirical data and creating an initial analysis, a focus group discussion was created with 16 managers from CGI which gave feedback on the preliminary findings and added new insights. As Yin (2002) indicates, a case study should use multiple data sources, which was achieved through multiple interviews on all levels, through extensive search through internal company documents, internal company platforms as well as the focus group discussion.

3.3.2 Secondary Data

One set of secondary data was collected through one full day of searching through the documented internal processes from the company's Management Foundation, where several hundred pages were browsed, and analysed. Due to how the Management Foundation is built, that is split into in different parts and sub-parts, the exact number of pages is unknown. The

data consisted of best practices, routines, processes, channels to go through before being able to publish best practices and so on. The data was added to the empirical data and later fit into coded headlines. Furthermore, data was collected through different internal documentations of the company structures, company presentations, and company templates. Further data was collected by going through company discussion portals and company knowledge sharing portals. The different secondary sources were mainly used to gain a deeper understanding of the formal knowledge sharing and management routines and processes. This was done to create an understanding of the planned way-of-working and the available knowledge management systems. This could then be contrasted against what the interviewees discuss and the realities they faced, both as consultants and managers. All of the secondary data was incorporated into the primary interview data and coded in the analysis process, as per Heading 3.4.1. Through this procedure the authors followed Yin's (2002) suggestions of collecting multiple sources of data.

3.4 THE RESEARCH PROCESS

This study follows the ideas of an abductive approach, which is a combination of deduction and induction, making use of theory testing and generation (Bryman & Bell 2015). After acquiring a broad understanding of the organization, the initial empirical questions were based on the conceptual framework, which served as the "theoretical blueprint" and therefore guiding the process of the initial empirical data collection and analysis (Yin, 2014). This approach follows the deductive approach, where the research and existing theories serve as a starting point, which is to be tested in reality (Bryman & Bell, 2015). Once the data was collected, the authors turned to the theory, reviewed the findings, and revised whether the semi-structured questionnaire covered all parts of the proposed theoretical framework as well as making sure that all of the now relevant theory was part of the theoretical framework. Furthermore, the authors ensured that the case specific theories were part of the literature review. This form of adapting and reorganizing the theory after the study was partly carried out represents an inductive approach, where the theory is built on the empirical findings (Bryman & Bell, 2015).

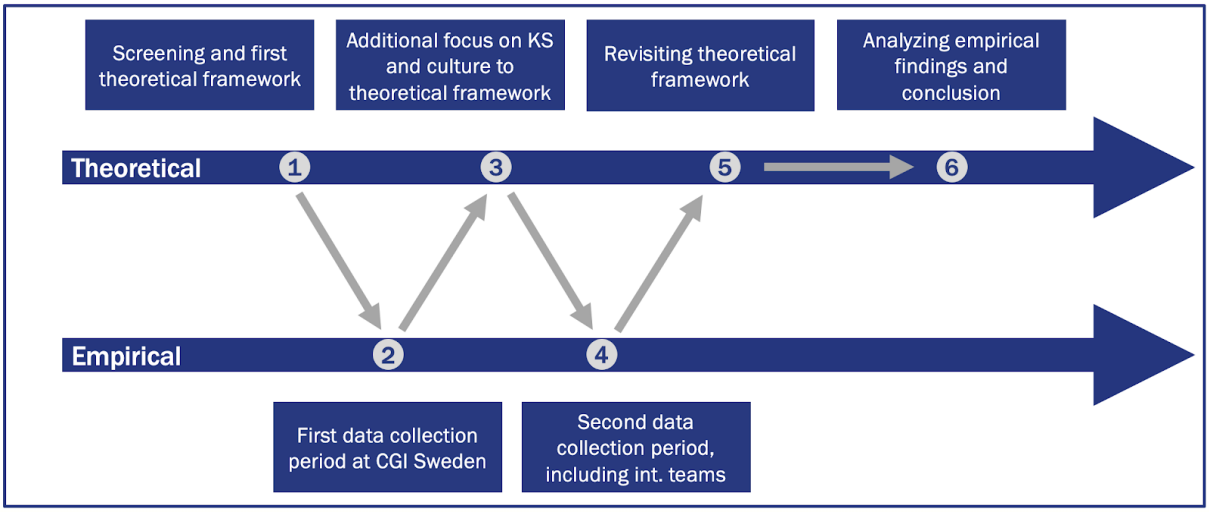

Figure 2 the Research Process Illustrated

- The research process of this study, illustrated in the above Figure 2, consists of six different stages. The first step, step 1 in Figure 2, consisted of a first screening of the current literature with the aim of identifying a research gap within the knowledge management literature in relation to the consultancy business, where global consultancies were identified as less researched but still of interest. Thereafter, a first theoretical framework was created.

- The second step represents the first data collection period, which was solely carried out at CGI Sweden in Gothenburg, step 2 in Figure 2. The data collection process at this stage focused on interviewing CGI employees from the different managerial levels in order to get an introduction into the knowledge management practices and the overall structure of the SBU. Of further interest was the organizational structure and acquiring an understanding of how different teams are organized, how knowledge management is practiced, as well as what communication paths they are required to follow. A few consultants were interviewed as well, to compare the viewpoints and see if additional theory needed to be added.

- Once the second step was concluded the authors advanced to the third step, step 3 in Figure 2, where knowledge sharing, and the role of culture were found to be critical factors for the case study. Hence, the theoretical framework was revised and complemented. Furthermore, much attention was paid to how the MNC structure itself represents an advantageous structure for leveraging knowledge as well as consultancy-

specific literature. Moreover, knowledge management and knowledge sharing, as well as KMS literature with and international perspective was considered helpful in deepening the understanding of the present case.

- The fourth step, step 4 in Figure 2 represents the second data collection period, where the authors were able to gain fine grained follow-up data building on the previous collected data relevant to the case. By interviewing consultants with direct customer contact, a better understanding of the internal processes which occurred within CGI Sweden could be gained. Furthermore, the authors had the ability to access an Indian team, CGI India, which could shed light on the different knowledge sharing practices that occurred in a cultural distant environment.

- During step five, step 5 in Figure 2, the authors once again consulted the literature in order to put these new findings into perspective. Especially the knowledge sharing, and more consultancy-specific literature was found helpful since it added a more in depth understanding of the case.

- Finally, in step 6 of Figure 2, the empirical and theoretical findings were analysed, which will be further described below in Heading 3.4.1 Data Analysis Description.

3.4.1 Data Analysis Description

The empirical and theoretical findings were analysed by reading through the transcribed interviews multiple times, as well as the collected secondary data, and then codified into 16 different headlines. The headlines appeared through theory, as well as emerged from the empirical data consisting of both primary and secondary sources. Throughout the data gathering process, the authors continuously went back to theory and re-adjusted the theoretical framework as well as fine-tuned the interview guide as well as searching for relevant secondary data. The last version of the interview guide can be found in Appendix 1.

Through the process of analysing the data, the authors also triangulated the data through presenting the preliminary findings for a Focus Group. The Focus Group consisting of 16 managers and VPs, as well as the subsequent discussion increases the trustworthiness of the findings. The authors began the analytical process with theoretical coding, which was then confronted with empirical data, such as CGI's 70/20/10-Model for Learning and Development against the Prerequisites for Successful Knowledge Management. Then the theory was updated

and once again confronted with empirical data. The empirical data and theory coded headlines were throughout the process reduced to fewer headlines and summarily analysed in step 6 in Figure 2, which led to the conclusions of this report.

The authors argue that the empirical data show that the national culture context captures the differences less, than the organisational knowledge-based culture does. Especially when considering the diverse national culture of India. The interviewed employees furthermore are continually in contact with CGI Sweden as well as with other international employees. The national context is therefore too hard to pick-out of the organisational knowledge-based cultural context and the company culture of CGI. Which is why the authors do not touch upon the embedded national cultural context of CGI Sweden and CGI India. The interconnectedness, the types of knowledge, customer- or delivery-centricity and the organisational knowledge-based culture are rather seen as the deciding factors.

3.5 Quality of Research

3.5.1 Internal Validity

To increase the degree of internal validity of this research, the following measures were taken by following the thoughts of Merriam (1998): First, the authors acquired an understanding of the case organisation and its national and global operations in regard to knowledge management and knowledge sharing. Additionally, the existing knowledge management and knowledge sharing literature was reviewed to gain an in-depth overview. Second, the authors used data triangulation through multiple sources, both primary and secondary data. The interviews were conducted by both authors to confirm and cross-check the empirical findings. The third measure taken was peer examination where colleagues were asked to comment on the data and plausibility of the emerging findings through multiple meetings and discussion seminars throughout the research process. Furthermore, in line with Merriam's (1998) member-checks, the authors presented tentative interpretation of the data for 16 managers at CGI, out of which 3 managers had been interviewed. Through the following discussion it was noted that the authors were interpreting the reality in a similar manner and presented plausible results from the research.

3.5.2 Reliability

In order to ensure a degree of reliability of the study the authors follow Merriam (1998), and have explained the assumptions and theory behind the study in the introduction chapter and theoretical framework chapter. The basis for selecting informants is explained in the methodology chapter. The context of the gathered data is explained in the introduction chapter as well as the empirical findings chapter where the case is described. Furthermore, the authors have used triangulation through multiple sources as described in the methodology chapter. The authors have described in detail the collection of the data and the selection of interviewees through a collaborative process with the company supervisor, in effect using a convenience sampling method. The categories were derived through a combination of using categories from the theoretical framework fitting to the empirical data and categories that became evident from the empirical data where additional theory was sought. In line with Dubois and Gadde (2002), having a large number of sources and multiple interviewees for gathering the empirical data for this case study, the accuracy was improved. Furthermore, by having an interview process where the authors were able to repeat questions and get continuous clarification, an additional level of profundity was provided (Ghauri, 2004).

3.5.3 External Validity

The purpose of this study is to provide a different perspective and to gain deeper insights into a specific case and context. To heighten the generalizability of the study, the authors make use of rich, thick description that is providing enough details about the context and methodology for the reader to draw their own conclusions as to in what regard this case is applicable to the reader's own situation (Merriam, 1998). Furthermore, this study is an embedded case study with two culturally distant contexts being studied, which gives the reader a greater range of situations to possibly apply these findings. As the external validity is connected to how much the study can be applied to another situation, in effect the generalizability of the study (Merriam, 1998) the authors hope to give the reader as many situations as possible to consider.

3.6 Ethical Considerations

The interviewees were not forced to participate, nor were they rewarded. The authors did not ask personal questions to avoid interfering in the interviewee's private sphere and offered to redact any part they did not mean to mention. The interviewees were additionally offered

anonymity to increase the likelihood of truthful responses and minimize perceived risks, as well as the freedom of avoiding answering a question. The respondents were informed and agreed to the authors recording during both interviews and the Focus Group discussion, following the guidelines of Merriam (1998). Finally, all interviewees were initially informed about the aim of the study to avoid deception (Bryman & Bell, 2015).

4 EMPIRICAL FINDINGS

This chapter describes the empirical findings of the study which have been derived from 16 interviews from CGI Sweden and CGI India, and a focus group consisting of 16 managers in CGI Sweden, as well as various internal and external documents. First the case company, CGI, will be introduced with some company history, philosophy, and the company structure. Secondly, the overall setup of CGI is explained from CGI Sweden perspective with a focus on knowledge management, knowledge management systems, knowledge sharing and is finished with overall international knowledge management perspective. Thirdly, it is described how these aspects are handled in practice by employees in CGI Sweden and is finished with CGI Sweden's perspective on international co-operation. Fourthly, it is described how these aspects are handled in practice by employees in CGI India and is finished with CGI India's perspective on international co-operation. The second to fourth parts also touch on the respective respondent's thoughts on why it functions as it does, as well as what differences there are internationally, how they occurred and why.

4.1 CASE COMPANY INTRODUCTION

CGI has at the moment of data collection in spring 2019, approximately 74 000 employees spread over the world, with offices on four continents. The Swedish branch is one of the larger ones with approximately 4 000 employees and is a part of the Northern European branch of CGI with about 9 000 employees. After the purchase of Acando in late spring 2019, these figures have increased with 2 100 employees spread over the Nordics, Baltics and Germany. CGI is originally from Canada and was founded in 1976, the owner is still active in the company and his daughter is following in his footsteps (CGI, n.d.). The family and other top executives annually conduct a world tour to present the figures of the previous year and the strategy for the coming year, during the tour any and all employees are allowed and encouraged to ask questions, according to managers.

4.1.1 CGI History

In the first ten years of its conception, the founder of CGI together with the growing team, built the basis of CGI's principles and beliefs. These principles and beliefs were documented and came to be what is today the CGI Management Foundation. As CGI is active in IT consultancy services, a business which is highly knowledge intense, constantly changing and very dynamic.

This in combination with the founder's experiences have led to a framework of routines and processes to follow and build culture, the CGI Management Foundation, practically making up the backbone of the company. The Management Foundation contains best practices and templates for everything from project leading, to financial targets, risk assessment guidelines, organisational structures, role descriptions and more. Already in the first ten years the IT business changed a lot, and CGI had to adapt with the changes and started a system integration part to the previously only consultancy (CGI, 2017).

The changes to the market continued, and in 1986 CGI started to buy other companies as well, then CGI was valued at $25 million and the company they bought to enter into the whole spectre of IT services, including outsourcing, was valued at $8 million. A few years later globalization was identified as important, which led to more international expansion following clients, and to ensure the same quality, services and culture, the Management Foundation was implemented in 1992 (CGI, 2017).

4.1.1.1 CGI Growth Strategy

To keep a similar culture in the company has been in focus from the management side. CGI has employed a growth strategy of organic growth in combination with mergers and acquisitions, the company has been willing to continuously adjust but not truly alter their own internal culture. This as it is seen as one of the larger competitive advantages they have to offer, in combination with their global competences, market reach and ability to keep their budget. CGI has since its founding made three purchases that almost doubled its size, in the 1980s to 2000s. The largest purchase more than doubled the size and was made in 2012, where CGI bought Logica and went from 31 000 to 68 000 employees (CGI, 2017).

4.1.2 CGI Today

At the end of the empirical data gathering for this thesis, CGI also purchased Acando, a Nordic IT consultancy company with 2 100 employees. This shows that CGI is still pursuing the same strategy as before with its organic growth coupled with purchasing other actors that can create synergies and still stay in line with the CGI culture. The history has shaped CGI and the company is staying true to its CGI Constitution, culture and the Management Foundation built around these (CGI Sweden, n.d.).

4.1.3 CGI Philosophy

CGI has from the beginning had a very similar philosophy, "*help the clients achieve success, sustaining long-term growth and providing fulfilling career opportunities to our members*" (CGI, 2017, p.1). To ensure that this philosophy is actually followed, CGI has created four guidelines, the Dream, the Vision, the Mission and the Values.

The dream consists of three aspects, the firs one of them being the aim to create an environment where employees enjoy working together. Therefore, CGI assembles and retains extraordinary talent on a global level who share this dream. The second aspect of the CGI dream is that CGI employees are shareholders of the company, creating more long-term thinking. The last aspect is sustainability for the various stakeholders (CGI, 2019).

CGI's vision is: *"to be a global world-class end-to-end IT and business consulting services leader helping our clients succeed."* (CGI, 2019, p.4). Being recognized by the clients as the expert of choice due to the deep experience and knowledge in IT and the industry sectors as well as the commitment to the client. CGI should also create good financial results and take care of its members and the communities it is active in (CGI, 2019).

CGI strives to help their clients succeed through creating outstanding quality, competence and objectivity as well as delivering the best services and solutions.

Partnership and quality, in long-term relationships on the basis of enthusiasm, competence and commitment are to be the basis of the CGI values. The values are lived through the culture which is based on these values and being innovative and initiative allowing. Furthermore, the members (employees), a stable financial growth, and recognising the value of diversity are areas of focus (CGI, 2019).

4.1.4 CGI Company Structure

The structure of CGI is built on strategic business units that cover important markets or areas, these are then further split into country level business units and then sub business units. Each Strategic Business Unit has large freedoms and responsibilities in regard to decisions, staffing, and financial performance goals. This structure and thinking goes down all the way to Sub Business Units, where each sub-level reports to the one above but also has their own financial responsibilities and strategic goals, making CGI into a multifaceted organisation. This report is further looking into the Strategic Business Unit North Europe, with a focus on Sweden and

more specifically the Sub Business Unit Sweden West. Furthermore, the Asian Strategic Business Unit, is also researched with a focus on the India Business Unit. The structure is visualized in the below Figure 3, where the blue units are part of the research while the grey are not part of the research but are shown to give the reader a more holistic understanding of the company structure. This report will use CGI Sweden as synonymous with the studied Sub Business Unit Sweden West and CGI India as synonymous with the studied CGI Business Unit India.

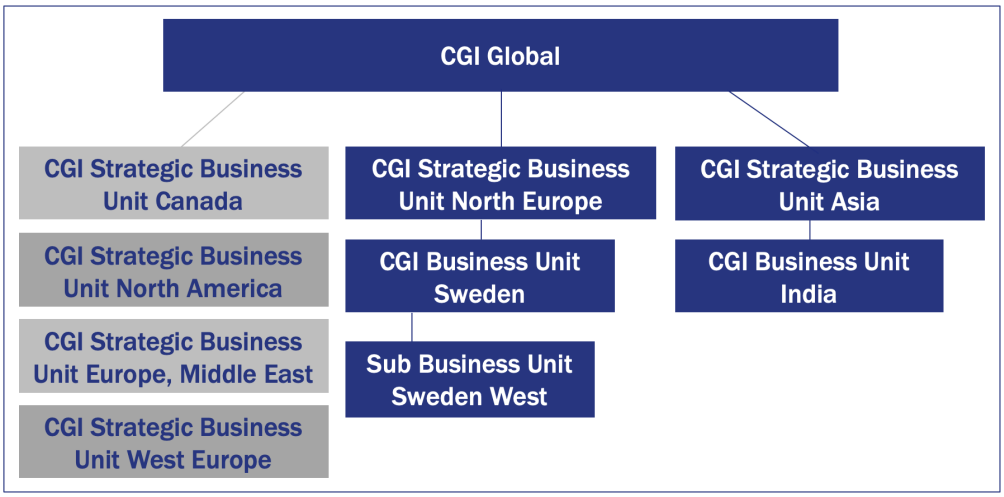

Figure 3 CGI Global Company Structure

4.2 KNOWLEDGE SETUP AT CGI

4.2.1 Knowledge Management at CGI

The Management Foundation is the base that CGI stands on and gives guidelines to the desired behaviour and culture of the business. This is in turn interpreted and encouraged by leaders throughout the organisation to ensure that knowledge is premiered, and the culture is aligned with the overall views and goals. Being aware and actively working with knowledge management is considered important and an area worth focusing on to both increase delivery quality and develop employees.

> *"Leadership is very important, making sure that people understand that it is expected from them to get new knowledge, develop competencies further, gain new experiences and skills and keep track on what is going on."*
>
> – Management Respondent

"Knowledge sharing is very much about a culture, it has to be Top-down, leading by example. For instance, I have a section of reading recommendations, which I include every time I write my monthly report that I send to the leaders and members. I hope this sends signals to work on competence development."

– Management Respondent

The above quotes show the importance that is assigned to the leaders in ensuring that the culture is continuously developed and followed by everyone. That developing oneself should be a focus and something that is desired both by the employee themselves as well as CGI. One participant in the Focus Group went so far as to say that if someone in the participant's unit didn't develop their competences and gain new knowledge, they would run the risk of becoming obsolete to the market in three years.

4.2.1.1 CGI's 70/20/10-Model for Learning and Development

As a part of the Management Foundation, CGI and its managers built a model of how it is believed the employees develop and learn, it is called the 70/20/10-model as illustrated in Figure 4. The model shows that the employees have 70 % of their learning during the daily work in projects, 20 % of the learnings are achieved through networks and interactions, while the last 10 % are represented by more formalised learnings, courses and similar. To ensure the possibilities for the employees to learn, the manager has a performance development session at least once a year with their employees.

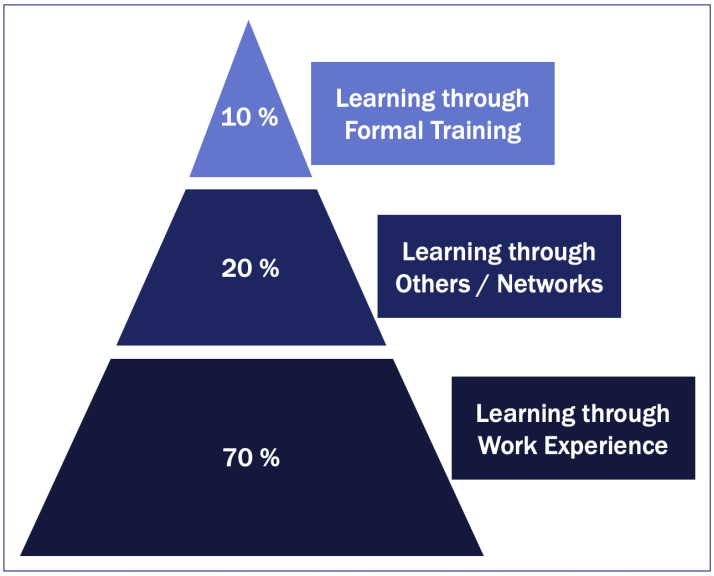

Figure 4 CGI's 70/20/10-Model for Learning and Development

The 70 % of the learnings that are during the daily work in projects are often taught by more senior employees to more junior employees. The senior employee can either be from CGI or from the client, that means there is some level of cross-learnings. There is also a great part that includes learning by doing, where the employee is learning through actually working with the tasks at hand. This is one of the larger parts of the 70 % according to the management respondents. Here there is often also involvement from the client, where the client supports the employee in learning while working. The mentoring program is a part of the 70 % but can also be seen as part of the 20 %, mostly it serves the purpose of developing the employee to fit into a new role and as such is mostly counted into the 70 % of learnings even though it has great networking implications. Occasionally the more junior employee is the one teaching the more senior one, often in a more specialised or niche-area. The employees do not only learn through these types of senior-junior interactions, they also make use of their networks when coming across a challenge that they cannot solve by themselves or do not have the knowledge to do so efficiently.

The 20 % of the learnings is said to be through learning from others, or networks, here the employees learn not only majorly from seniors, but also from peers. The network part of the model is the hardest to determine, as the knowledge flows are flowing in many different directions. There is both peer-to-peer interactions, senior-to-junior, junior-to-senior, manager-to-employee, employee-to-manager and also inside-outside CGI flows. These flows can be client-consultant or consultant-client, or consultant-consultant from different companies. There are many other semi-formal or completely informal networking sessions as well, some of the management respondents highlight the “Learning Lunches”, where the participants gather and discuss a topic over lunch and share their learnings and insights. There are After Works, dinners, social gathering and sometimes the consultants take initiative and create their own groups or events that share knowledge and are an important part of building a community and culture. There are also internal platforms and communities that are tools to facilitate knowledge sharing. The internal communities are called “Practices” and “Competencies”, these are split into areas of relevance for the consultants and are on a national basis, and each practice and competence are managed by a “Lead”. The practices are dealing with more external matters and are more project delivery oriented, while the competencies are more toward internal learnings and creating knowledge through co-creation and sharing of expertise. Both areas are also used as something like advertisement boards for expertise according to VP 2, who uses the competencies to get in touch with the correct expertise when it cannot be found in the network

or available documentations. This means they practically function as an extension of the personal network according to the managers. The 20 % of learnings are often also tightly interlinked with the 70 % of learnings from the actual work, as most learnings happen in the meeting between persons and are therefore largely network-based, according to the manager respondents. Furthermore, the managers highlight the importance of the network not only for learnings, but also for selling new projects, for climbing the career ladder and for getting assigned to projects that are interesting to the individual consultant.

The 10 % of learnings that are formalised are easier to measure, as it is in regard to formalised lessons or courses. To facilitate this, CGI gives access to multiple online platforms for learnings, have lectures, external educations and multiple internal platforms and communities for different specializations according to the management respondents. The formalised learnings are often from one "teacher" or leader to a group of people, either there in person or dispersed online. The exception is often in the internal platforms and communities, where it can often be more discussion based. One important aspect of this which is highlighted by the managers is to acknowledge the external competencies that are available, and so they have learnings and sessions with external experts in interesting areas, which are open for the consultants to sign up for. This is especially common in regard to a system or similar where the software is owned and created by a different company. One of the most important aspects which are highlighted, is that as CGI is a leader in the industry, and as it is such a dynamic industry, they need to gain the knowledge of the front-runners in the various IT fields, as this changes year by year, or even more often in some cases. Even though the formalised learnings are easier to measure, the internal platforms and communities still function as a type of network to learn and share knowledge as well as having more formalised learning sessions.

4.2.1.2 Documentation

The structure of documenting learnings in projects is left to the individual manager, there is a loose guideline to follow, but there is no step-by-step process or structure, rather a guiding towards documentation. The management respondents find that documentations of learnings in projects occasionally suffer due to time constraints in the budgeting of the project, where other prioritizations need to be made. One manager when talking about documentation and the time-prioritization dilemma said:

"*I do think that, we as leaders, could allow for a little bit more time to document things.*"

– VP 1

While one consultant was adamant to create documentation, even if there is not enough time budgeted in the project and said:

"I always make a 'Lessons Learned' – from a test perspective. So that the next person can look at the pitfalls. I also like documentation, so I also put it on the homepage [SharePoint], with manuals, guidelines et cetera."

– Consultant Respondent

A second consultant stated that:

"When I went into this one project and started the project, there was no documentation from what's been done before even though it was used in production because the previous employees thought it to be unnecessary and boring. So, I had to re-do that part, and that takes time and effort and costs the project unnecessarily."

– Consultant Respondent

These quotes do prove that both managers and consultants are aware that some knowledge definitely can be worth to create documentation about, although there is a time-dilemma involved and sometimes also an unwillingness to create documentation. One manager mentioned that they are currently the only person with a lot of knowledge regarding their client, some up-and coming projects, and currently being conducted projects. Further flagging that if something were to happen that they could not show up the next day, some projects would have to start from scratch while up-and-coming projects would never be realised. They further continued with knowing that it is a margin business and it is simply impossible to have someone shadow them for 8 hours a day, the risk has to be taken to some extent, although maybe it could be mitigated somehow.

4.2.1.3 Knowledge Management Systems at CGI

All management respondents mentioned the multiple tools that are available in their current knowledge management systems, but in the same breath they continued with the current tools being insufficient in fulfilling the needs of the employees. Most of the managers believe that the culture at CGI is toward supporting knowledge sharing, but that right now the largest challenge is probably in the tooling.

The currently available tools in CGI's knowledge management system arsenal are:

- CynerGI (intranet platform)
- CynerGI Conversations (intranet platform and forum function)
- Proposition Catalogue (containing project propositions, sales presentations, training materials and so on)
- Ensemble Sites (internal file sharing servers)
- SharePoint - used for each project and overarching
- Skype
- Webex (internal meetings system)

In CynerGI, it is mostly top-down communication, where the company disperses information or knowledge and the employees can partake that which they find to be of interest to them. The information on the platform is controlled and there are employees responsible for publishing articles or posts on the platform to be able to control the information flows, making it mostly one-way communication.

CynerGI Conversations has another role as compared to CynerGI, it instead acts more as a place of discussion, where posts are not controlled and the employees can connect to each other, share articles and knowledge more freely. The knowledge flows here are both senior-junior, cross-border, peer-to-peer, manager-to-employee and employee-to-manager. The position or seniority of the employee has a less important role as information can flow more or less freely between participants in the group on the platform.

The Proposition Catalogue is managed by one or a few managers, where they choose project propositions, sales presentations and offers, training materials and fact sheets and so on. The Proposition Catalogue is a one-way communication, but it is a tool which can allow the employees to use templates and previously accumulated knowledge to speed up their own work by building on previous material. This is relevant for those consultants that have sales ideas, need to create offers or build on a structure for their project delivery. It is more useful for client-oriented positions rather than delivery-oriented positions. The information in the Proposition Catalogue is derived from other employees that can send the templates to the responsible manager(s) and have them added to the catalogue for others to build upon.

The Ensemble Sites is more of a file-sharing system, which includes a large amount of documentations, the documentation is mostly standardisations for processes, ways of working and templates to speed up work. The information is useful for most employees, although different documentations and templates are useful for different positions. The documentation can be considered as a collection of CGI spanning best practices, mostly in regard to internal issues rather than client-oriented issues.

SharePoint is the most commonly used tool for employees to become knowledgeable of the new project or new position. Many documents, guides, learning sessions and templates are stored on SharePoint in project or position relevant folders. The documentation in the projects is updated by project members for future as well as current project members' benefit.

Skype is often used to communicate internationally, as well as to record learning sessions or meetings to be able to share those on SharePoint. Skype is seen as one of the better facilitating tools for communication, learnings and sharing knowledge. Skype is also used when communicating with those that are not a part of CGI or do not currently have their CGI computer available.

WebEx is an internal communication program often used for conference calls and meetings where some are present physically while others are dispersed and instead participate over link. This system only works on CGI computers and is therefore limited to internal communication only.

VP 2 highlighted that some of the systems are not truly relevant to all the members, depending on the role some are more relevant than others. One management respondent claims that one of the larger problems is that the KMS only work on the company network or laptops, while in Sweden the main device that is always in use is the phone. The laptop may very well be issued by the client and so the employees do not see very much sense in bringing their CGI laptop as well. Therefore, being able to access the internal platforms through the employee's phone would greatly increase the user friendliness and usability of the tooling. The respondent further continues with theorising that the reason for the internal tooling to be confined to internal laptops is probably due to them being "owned" by the Canadian offices, while Sweden is much more progressive in this regard.

4.2.2 Knowledge Sharing at CGI

4.2.2.1 Necessary Factors

Management in CGI Sweden identifies some main factors for knowledge sharing: culture and willingness to share, personal networks to know who to talk with, trust to dare to share, time to share, and the correct tooling to actually be able to share.

Today CGI Sweden management find some parts to be further evolved than others, the corporate culture is seen to be mostly aligned toward knowledge sharing and trust has in many cases been built and is being built and maintained continuously. Through the culture based on knowledge and sharing, which is mostly international, the organisation mitigates national differences in that regard. Further the willingness to share knowledge, both on a management level and an employee level is seen as high. Furthermore, they all agree that the tooling is currently insufficient for the task of sharing and disseminating the knowledge that is already located within CGI and that is increased and built upon daily. In regard to networks, there are some slightly conflicting opinions to the level of networks being used, albeit all are in agreement that the last few years have seen an increase in the networking of the employees. The largest point of contention appears to be the extent to which management needs to encourage the employees to build their networks and in the correct communication to leverage to achieve it.

When it comes to the time necessary to share, the opinions of the management respondents start to diverge somewhat. While all respondents mentioned that they believe there should be and is time to share, some also acknowledge more than others that there are incentives and priorities leaning more towards billability than documentation and knowledge sharing. For example, one management respondent highlighted that occasionally documentation for CGI is not included in the budget of the project. When the consultant is out at the client's, they may or may not have to document for the client, but that does not necessarily return any knowledge to CGI and in that regard, there are no real structures or routines that need to be followed, rather it is up to the individual manager or project leader to actually prioritize the documentation.

In regard to future learnings and the sharing of acquired knowledge, all managers involved with daily activities including those from the Focus Group, believe that they are open to and encourage employees asking to learn new things or developing in new areas. During the Focus Group discussion, one VP highlighted that less than 10 % of employees in their team had asked

for this type of new learnings and development in the last two years. They meant that the rhetoric's used by management in trying to increase utilization of resources, in effect billability, might lead to an uncertainty in the employees to ask for learnings and development during work hours. This theory, or musing, from the VP created a debate engaging most of the focus group with differing opinions. In the end a sort of consensus was reached in that the current way of communication from the leaders might create the belief that these types of new learnings and developments were not preferred. All managers engaged in the debate voiced that they actually premier this kind of proactive choice and are even more likely to keep them in mind for future assignments and potential promotions.

4.2.2.2 Enabling Factors

The above-mentioned factors are identified by managers as necessary to be able to share knowledge, but to be able to motivate employees to share more than the bare minimum, there are other aspects to consider as well.

One such aspect is in the hiring of the "correct" people, that have similar thoughts in regard to the importance of knowledge sharing, that are willing to and want to share from the start. With incentives structured on a team level rather than on an individual level, knowledge sharing is further premiered, and knowledge hoarding risks are reduced. The leaders also play an important role in building the culture, making the team loosen up, build and maintain trust and to create common ground where knowledge can be shared and understood.

In addition to these aspects, there is one main factor management respondents agreed upon is hard to communicate. That is, it is in the individual employee's interest as well as their responsibility, to learn and then to share with the colleagues that need it. To stay relevant on the IT-consultancy market, the person needs to stay up-to-date and on the forefront. The managers find it positive to learn more while still keeping up a high level of billability, but these are sometimes apparent opposites which makes communicating tricky.

4.2.2.3 On-boarding and Mentoring

The management respondents mentioned the mentoring program as important and something that both plays an important role in building culture and community, as well as one of the preferred ways to share knowledge and create new knowledge. This is seen as a part of the networking aspect of the learnings model, and mentoring is utilized mostly when an employee is looking to change position or is new to a position. VP 2 discussed the potential benefits in

expanding the mentoring program to include those already settled but came to the conclusion that those members were believed to be able to recognize their own need for a mentor and bring any such request to management. There are external mentoring programs for senior consultants in parts of CGI Sweden, there have been instances of reverse-mentoring programs in parts of CGI Sweden when a more senior manager wants insights from younger professionals that have been seen as successful.

The on-boarding program is seen to be well structured, give opportunities to network with colleagues, current leaders and future leaders as well as give the basic knowledge needed in regard to the CGI methods and way of working. The on-boarding process is also supported by the Management Foundation where employees are encouraged to understand the processes and structure of the organisation. In connection to the on-boarding CGI has a more exclusive program called Next to Lead, where the members are sent to different lectures, meetings, networking events with others in the program as well as managers, and other similar activities to promote knowledge and leadership.

4.2.3 View on International Knowledge Management at CGI

One CGI Sweden manger mentioned that different cultural backgrounds in the team require slightly different communication and sometimes communication channels. The manager gives the example of some international employees, where the manager at first called every two to three weeks to just ask how everything is going and if they are doing good. The manager noticed that the international employee found it quite difficult and became insecure. Even wondering suspiciously, if the manager has heard that anything has gone awry, that the employee is not aware of. While the whole purpose of the call is to make the employee more at ease. This does not hold true for all international employees, some still like to receive these calls, but not to the extent that Swedish employees appreciate the calls.

Another manager said that they are usually the only Swedish in a team, or one of few and so the international aspect is constantly present. The communication has to be adapted somewhat between different cultures, but as long as the person is aware of this, any differences can be mitigated, and open communication be erected to figure out any discrepancies. There are national cultural differences between employees, although they are mitigated through having the same CGI corporate culture. The knowledge based organisational culture helps to keep the employees together and talk across national contexts. The manager stressed openness and

especially listening to the other person, listening not only to what they say, but how, and what they do not say. Through doing this, the manager can more easily understand how the employee wishes to communicate and can be set at ease while still delivering to the preferred level.

One manager with responsibility over an international team said that "*adapting your communication only works to a certain extent, too much and you can actually lose the meaning that you are trying to convey to the employee*" – Management Respondent. In talking to the Indian team members, the manager realises that they have to take the hierarchical structure into consideration and that it is for example, not possible to openly criticize their own manager for the Indian employee. This holds true to some extent even in a closed meeting with full confidentiality, as it goes against their own culture. Instead the manager has to ask around the actual question, to get the answers they need.

The CGI Sweden managers acknowledge that there are differences between the Swedish units and the Indian, as the Swedish is much more customer-centric while the Indian almost solely focuses on deliveries. This difference means that different structures and processes are more beneficial than having highly similar processes. The Indian unit is exemplified as having more trainings and external learning sessions and seminars than the Swedish due to this difference. The Indian subsidiary is seen as better in sharing the more explicit knowledge which can be easily codified, according to one manager. The Indian subsidiary is found to make use of more standardized and formal procedures, such as documentations and process descriptions that allow for knowledge sharing. The Swedish subsidiaries are seen to be better at sharing the more tacit knowledge that can only be codified to a certain extent. The Swedish subsidiaries instead rely on informal procedures such as networks and networking, and interpersonal interaction to be able to share and utilize the knowledge which needs to be adapted to the specific situation. The organisations are dealing with different problems and challenges and so use different processes and knowledge to solve their challenges. The manager believes that both organisations can learn from each other, how to share the respective kinds of knowledge in a more efficient way.

4.3 PERSPECTIVE OF CGI SWEDEN

4.3.1 Knowledge Management Practices in CGI Sweden

The employee respondents find that to a large extent the 70/20/10-Model holds true although there are differences in how large a part the networks have, as many learnings are through networks, but on-site-work related. The consultants generally believe that there are opportunities to learn and that learning tools and resources are available to use when requested, even so most of the consultants find that there is a perceived time restraint in learnings during work-hours. This perception is built through the communication from leaders where they press for billability, although in the daily work documentation is being more affected than new learnings.

The consultants still believe that leadership supports new learnings in general, that there are learning sessions, but the view is that those sessions are mostly conducted after working hours. The fact that these kinds of sessions are mostly after working hours means that some employees are unable to attend, usually due to personal circumstances such as having to take care of children or similar. One consultant mentioned that this shows to what level management appears to be interested in promoting learnings - "*learn but do it after working hours when you're not billable*" CGI Sweden Consultant Respondent. Of note here is that the same consultant was satisfied with the mentoring program and the learnings and development opportunities available there. Another consultant on the other hand found that there were almost endless opportunities to learn, and that management fully support the employees in learning and developing if they express an interest and are willing to take action themselves. The majority of CGI Sweden employees tended toward there being support in regard to learning and developing in both new and old areas as long as the individual employee was interested in pushing it themselves. One consultant highlights the usefulness of "Competences" in certain regards and the possibilities to connect to experts in certain areas of interest through the intranet as a part of the network learnings that CGI facilitates.

The "Practices" and "Competences", are not used by a majority of the interviewed consultants at CGI Sweden. Although some consultants said that they make use of the competences semi-regularly to regularly, both in a more local setting and global on the intranet platforms. The consultant using it regularly found it to be mostly worthwhile in an area of interest to the consultant rather than in the actual work as well as a networking community where knowledge

and ideas could be exchanged. Mostly the competencies and practices were seen as too hard to navigate and oftentimes too far removed from their daily work to be of use. Instead of the practices and competences the consultants found documentation on SharePoint to be their most important source of internal knowledge beside their network.

The documentation in projects is described as highly varying in extensiveness, in some cases it is nearly non-existent or very out of date, most often due to project restrictions but occasionally due to the project members' unwillingness to prioritize documentation. The consultants theorized that the variations in documentations between projects was mostly dependent on there being less structures, processes and guidelines for the project leader or manager to follow in regard to documentation. One CGI Sweden consultant described a situation where they had taken time to create documentation after the end of a project and their manager said that it was not necessary as the project was finished already. Where the consultant then highlighted the importance of documentation if something had to be changed. Unless the employee likes to create documentation or is informed of its necessity, it is unlikely to be prioritized even though all employees recognize that it helps tremendously if something has to be re-done, an employee moves teams, or a new employee is introduced to the team. All employees, both consultants and managers, could name times when they would greatly have appreciated more documentation themselves, but still half of the consultants and most managers said they do not document as much as they probably should.

4.3.2 Knowledge Management Systems Practices in CGI Sweden

The majority of the employees said they rarely to almost never use the internal knowledge management system CynerGI and CynerGI Conversation, with the exception when they began working for CGI. Furthermore, the navigation within these tools, systems, and platforms were mentioned to be "hard" or "inefficient". Instead they find the knowledge or information needed by other means, such as contacting their network. This since it is perceived to be more time efficient than browsing through the extensive amount of information on these platforms.

Half of the interviewed CGI Sweden consultants were aware of the Proposition Catalogue, but only one used it with any level of frequency. The employees aware of the Proposition Catalogue that do not use it frequently, said it was because they have been in a project for a longer time and therefore have not had a need to use it. The Ensemble Sites were rarely mentioned by any employee as they are more of a collection of different files, from the responses of the employees

the authors could conclude that most if not all employees have used the file system, but that it depends on project and that the employees do not reflect on where they collect the files and documentation they need. The challenge that CGI Sweden consultants mentioned is that when working for a customer they often use their customer's laptop, but to access the CGI sites they need a CGI laptop. This means the consultant has to bring two laptops and log on to the various CGI sites to be able to access the internal resources. When logged on the consultant needs to spend time searching the different tools, then spend a good deal of time to actually find what they need, and finally interpret it into their specific situation.

CGI Sweden consultants mentioned that the internal systems would be more useful to them if they could use them through their phones, or use applications such as Slack, where different communities and chatting could be hosted. Today this is not possible due to management restrictions and some potential confidentiality issues. The employees find that the most common KMS they use at CGI is SharePoint, followed by documents on the Ensemble Sites and CynerGI. The exception is in communication tools such as WebEx and Skype, the employees appear to use these tools to the same extent at SharePoint when working in dispersed teams as it simplifies communication.

4.3.3 Knowledge Sharing Practices in CGI Sweden

4.3.3.1 Necessary Factors

The CGI Sweden employees find that organisational culture has a very important role in regard to if employees share or not, especially employees that have been working in other organisations find that the culture is highly important. The culture at CGI is described as supporting knowledge sharing, the people want to share their knowledge and are willing to help. The main restricting factor is that the perceived time to share is limited, all consultants mention that sometimes they don't ask someone they think could help them since they appear to be too busy. Consultants also said they have been unable to share their knowledge due to time constraints as well as having time constraints quoted to them as a reason to be unable to help.

The consultants find that trust is less of an issue, the employees perceive that most people working at CGI are to be immediately trustworthy from the fact that they're working at CGI, although they do find that building more trust helps. "*Of course it helps if you know someone, you feel that you're not bothering them and that you dare to ask potentially stupid questions, which you probably will not do if you do not know that person beforehand."* – CGI Sweden

Consultant Respondent. The employees say that the culture at CGI and feeling of belonging is an important part of the basic trust needed to share knowledge, but all prefer a more personal relation. Especially when it is a more complex issue or something where they have limited experience beforehand.

Some CGI Sweden consultants believe that the current tooling is enough to conduct knowledge sharing to the level they want to, but still continue on with that it is just barely enough. Most of the employees find the current tooling to be inefficient or not adapted enough to share and gain knowledge in the way they would prefer to. The tooling is to a large extent dependent on the CGI laptops, which is seen as a bit problematic. Most employees use their personal networks as a way to bypass the CGI laptops. For example, when needing to find a person knowledgeable in a certain area, they use their networks to try and find someone with that knowledge instead of searching the internal sites where they could get suggestions immediately. The employees find that the network is of high importance and that it is part of the "bread and butter" of a consultant. One consultant said that the importance of the communication from leadership is very large, just in the last 2-3 years the consultant had noticed a large difference in co-workers outlooks and actions, now they are more geared towards networking and seeking out others to expand their knowledge and solve issues. Previously, the consultant explained, the co-workers did not network as much and they had to go through the managers network more often, slowing the process down. Further the consultant highlighted the possibilities for new projects that arose from this change in mindset, saying that the consultant's group had successfully gained at least one more project extension from this new outlook.

4.3.3.2 Enabling Factors

The CGI Sweden consultants consider time to be both a necessary and an enabling factor, the actual time available is necessary to be able to share at all, but the perceived time acts more as an enabling or detracting factor. Most consultants perceive the time available to be lacking in regard to knowledge sharing, there is always something that needs to be done in regard to the project and the other person is usually also quite busy. This means that they occasionally do not share as much knowledge as they would prefer. Other consultants perceive that knowledge sharing is highly important and therefore there is almost always time available for knowledge sharing. The few exceptions they mention is when already working overtime due to being in a sensitive phase of one or more projects. Most of the consultants that perceive time to always be

available have been headhunted or recruited for their values, as they fit well with the preferred CGI culture.

The CGI Sweden employees find that hiring the right person with a culturally good fit is important, and it is something that management is succeeding with as the initial trust is there due to the employee being a CGI employee. Some employees mentioned the Management Foundation as important in helping to build the culture, and the owner making an annual tour to present the coming strategy and answer questions is also highlighted in this regard. This is important to have common knowledge and some type of common starting point so that the employees know that they "talk the same language". When having this common knowledge base, the consultants find that it is easier to share and gain knowledge, as they do not have to waste as much time on making sure that they are talking about the same things in the same way.

4.3.3.3 On-boarding and Mentoring

All CGI Sweden employees that entered the on-boarding program in the last five years said that it was a good program that helped them tremendously. The on-boarding presents the internal processes, the Management Foundation, builds culture and gives the new employee a "buddy" to help them with daily issues in the company. Furthermore, it gives the employee possibilities to build their own network internally in CGI, where they meet experts and other employees in many fields, as well as in their own field. They also get to meet managers and leaders which can further help them both in their careers and in sharing and gaining knowledge.

When changing positions or expressing an interest in changing positions, most employees get a mentor to help them realise the change in position. Discussing what the employee needs to learn, sharing their own journey and being a sounding board for the employee. Some of the CGI Sweden consultants had been mentors and found it to be very rewarding, where they learnt more about what they are doing as well as realised that they had learned a lot since they gained their new position. The adepts or mentees, find that the mentoring system could help them a lot, given that they actually drive it forward and ask questions and keep the conversation going. All participants in mentoring have found it valuable and many still keep in touch with their old mentors and mentees, often still using them as sounding boards, or just keeping in touch at the coffee machine.

4.3.4 International Co-operation from CGI Sweden Perspective

Many CGI Sweden employees said that there were no large differences in working with international teams, but still went on to say that time zones and cultural aspects played a role in communicating with the international team members. The employees said that they find less differences between dispersed teams in Sweden and dispersed teams internationally, as compared to dispersed teams in Sweden and local teams in Sweden. The largest hurdles are seen as distance and that they do not sit next to each other, so they are not able to point at the screen and explain what to do, and they are not able to look the other person in the eyes and see to what extent the explanation is understood.

The employees find that knowledge sharing internationally follows a different process. When sharing knowledge with the Indian part of the team, they always have to go through the manager and the hierarchical structures of India, while in Sweden there is very little hierarchy involved. Therefore, the knowledge sharing can take more time when working with India, but when it is just a question or similar, there is very little difference and the process is described as rather smooth and easy. One key difference is that the CGI Sweden employees feel that they need to specify everything that they want from the Indian employee, as compared to in Sweden where the other person anticipates in another way what it is the employee might need in addition to what was specified. Once the CGI Sweden employees learned that difference, they found that it became much less problematic and there is not too much friction inside of the team.

In regard to those CGI Sweden consultants working in more international projects, they found that there are large differences in the way of working between for example China and the United States. The consultants said there was a bit of a start-up stretch where they had to experiment to get the communication flowing in a good way. China was actually seen as easier to communicate with, as the managers tell the employees what to do, and then they do it. Making sure that tasks are ticked-off made the whole process a lot easier. In the United States, one CGI Sweden consultant said they had to truly make a statement and draw a line to get them to listen to the consultant, which the consultant described as being far from their normal or preferred behaviour.

Most CGI Sweden employees found that learning to work with diverse nationals is necessary, and that in regard to some things, it could be good to have a short introductory course to describe

these diverse circumstances. The differences in managerial and hierarchical mindsets between Sweden and Asia for example, or the more direct communication needed with certain cultures.

4.4 PERSPECTIVE OF CGI INDIA

4.4.1 Knowledge Management Practices in CGI India

The knowledge management in India is shaped differently to Sweden, in India there are no "Practices" and "Competencies", as those are more customer driven, while the India unit is geared more toward deliveries. The same holds true for the "Proposition Catalogue" which does not appear to be necessary for the Indian subsidiary. The Indian subsidiary applies the 70/20/10-Model differently as compared to CGI Sweden. In CGI India, the manager decides what knowledge is to be shared and learnt, and the system is based on a more formalised approach as compared to the Swedish system. There are constantly different formalised courses and learnings in the CGI India office. The CGI India consultants can tell their managers that they are interested to attend a certain course and are mostly allowed to join the course or being asked by their manager to attend a course. Documentation is extremely important in the Indian subsidiary, the CGI India manager and consultants both highlight the importance of well executed documentation, as it is the main way to share learnings.

4.4.2 Knowledge Management Systems Practices in CGI India

The Indian subsidiary documents more or less everything and stores it on the SharePoint site, which is split into different projects, skills and processes. There are routines and processes for most tasks and the Indian subsidiary tries to codify most tasks so that they can be performed by anyone with access to the correct SharePoint site.

The managers in India make sure that rigorous documentation processes are followed, all external lectures are recorded and uploaded to the correct SharePoint site. The internal lectures are often also recorded and very many trainings are available for the employees to be able to work as efficiently as possible. The CGI India consultants are also highly interested in keeping documentation up-to-date, one consultant said that "*up-to-date documentation is probably the most important thing in our work*" – CGI India Consultant Respondent. This allows anyone to step into a project and be productive almost immediately, the documentation is also seen as a

great learning tool for the employees and they feel that they can develop through the documentation.

The CGI India employees most prefer SharePoint, but they use other internal resources such as CynerGI and CynerGI Conversations every day. The internal platforms are used as sounding boards, they join groups and can discuss different questions and problems related to their projects. These internal platforms are even seen as the second most valuable way to acquire knowledge, right after documentation and then shortly followed by the network of the managers. The internal platforms are used through different groups, where the employee subscribes to the group where specific topics are discussed based on their interests or their projects. The CGI India employees do not experience the same problems as the CGI Sweden employees, that find CynerGI to require too much time and effort to gain knowledge. The CGI India employees sift through the massive amount of information through constantly keeping up to date with their preferred areas of expertise through email notifications. They say they are able to do this as the internal platforms are one of the primary knowledge sharing tools.

4.4.3 Knowledge Sharing Practices in CGI India

4.4.3.1 Necessary Factors

The CGI India employees find that trust is not really a problem to them, they automatically trust other employees as they are a part of CGI, or the consultants are ordered by their managers to share some knowledge and trust is not truly a part of it. The CGI India employees find that the organisational culture is highly conducive of knowledge sharing and the consultants are most often encouraged by their managers to share their knowledge and document it. The consultants feel that knowledge sharing is encouraged by both other employees in India, managers in India and also internationally.

One CGI India employee states that there actually is a difference in sharing knowledge with Sweden or with another country, CGI Sweden has a much more open organisational culture and there is a low level of hierarchy. This means that it is easier to state their own opinions and that more experience based, or hard to codify, knowledge can be shared in a better way, as the employees can interact more directly with each other and it is a more forgiving environment for “stupid” questions. Although the CGI India employee also says that it is still easy to share knowledge in the Indian subsidiary as well, simply some types of knowledge are easier to share within the Swedish team as it is more forgiving and open.

As to having the perceived time to share, the CGI India consultants have documentation specific hours set of in projects so that they can create and share their knowledge. They can also ask their managers to be allowed to share their more tacit or experiential knowledge with certain colleagues or create a learning session of some sort. The CGI India employees find that sharing knowledge is sometimes hindered by not being at the same location with those they need to share the knowledge with. All of the CGI India employees said that the largest obstacle is in that they do not sit next to the person they are sharing their knowledge to, although in some respects the hinders can be reduced through video calls and screen sharing. In general, the available tooling is appreciated and perceived to mostly fulfil the needs of the employees when sharing knowledge.

4.4.3.2 Enabling Factors

The CGI India consultants find that there is mostly enough time to share knowledge, although there is a sometimes a lack of time in regard to the more daily learnings. One consultant suggested to maybe earmark some time at the end of the day for daily learnings, through those 10-15 minutes, the learnings could become more detailed as opposed to doing the documentation at the end of the week, or even end of the project. When waiting with creating documentation, the consultant believes that much knowledge and detail is lost, as the employee is unlikely to remember exactly what has transpired during the week and what was new learnings and what is already incorporated into their own knowledge. The CGI India manager also mentioned that it might be beneficial to create documentation closer to the time of the learning, although raised timing as an issue against implementing it as a standard. Sometimes it is simply not possible to create documentation the same day that the learning is gained, even though it is important to capture the learning. The manager finds that knowledge sharing needs to keep resource optimisation in mind, especially when not learning for a current or soon to be next project (in effect, billability).

The Indian subsidiary appears to use hierarchy as a facilitator to knowledge sharing, and through being able to decide what knowledge is to be shared to whom and at what time, greater control over the knowledge flows can be had. This also leads to the managers having knowledge of who knows what, which allows for a greater ease of knowledge utilisation. The downside is that the consultant has to ask the manager for permission to share or gain knowledge, which could delay the process.

4.4.3.3 On-boarding

The Indian subsidiary has a structured on-boarding program, the employees said that they received trainings, were introduced to the team and internal platforms as well as given the necessary accesses to SharePoint. The employees were happy with their on-boarding and find it to be helpful and supportive in regard to getting started at CGI and in projects. Due to the high level of formalisation and routines, the on-boarding in new projects works very well, and the on-boarding to CGI works even better. Many aspects are helped through the standardised approach as the managers and consultants know what to expect. One CGI India employee thinks that the on-boarding could be even more structured, with even more rigorous documentation to ensure that every employee gets the same on-boarding and can have the same possibilities.

4.4.4 International Co-operation from CGI India Perspective

The CGI India employees say that having met the person face-to-face helps in the beginning, although since they have daily or almost daily communication with the international team members, they get to know them quite fast either way. In general, they therefore don't find it to be all that important, although they have met most if not all members of the international team at least once.

The face-to-face meeting is most important when it comes to the knowledge sharing. The CGI India employees specifically highlight that it is in determining the level of previous knowledge of the recipient, as well as to what extent the recipient understands the knowledge that is shared, where the face-to-face meeting has the most importance.

The communication, both in India and towards Sweden is conducted in English in most cases, and so there is less difference in working with the two countries. The exception to this, one consultant said, is when the Indian consultants already know each other, and they have a local language in common and know they are only talking among themselves. Although there is some difference in working with the Swedish teams according to the employees, as it is less hierarchical and more open to listening to everyone's ideas independent of position or seniority.

5 ANALYSIS

The aim of the analysis is to create the basis for answering the research question:

"How does a global consultancy firm handle knowledge management and knowledge sharing in an international setting, and why is it handled in that manner?"

The analysis begins with recalling the Theoretical Analysis Model, which is the analytical tool that allows to confront the theoretical framework with the empirical findings of this report. Following, the different factors of the Theoretical Analysis Model are listed, analysed, and compared to the findings in the context of the case company. Later, factors that the authors, throughout the collection of the empirical findings, and comparing to the Theoretical Analysis Model, found to be absent from the model are evaluated. Furthermore, the significance of these factors is highlighted, which led the authors to revise the initial Theoretical Analysis Model. The revision of the model ends with the creation of the Consultancy Knowledge Management Model (CKM-Model), which helps to answer the research question.

5.1 THEORETICAL ANALYSIS MODEL

The premier tool of analysis that is used in this report is the Theoretical Analysis Model, consisting of three different parts, as identified and built throughout the Theoretical Framework (see Heading 2). The first part is built through the identification of the most important parts for successful knowledge management. The second part is based on the most important or common failing factors of knowledge management. The third and final part is built on important factors influencing knowledge sharing activities. The Theoretical Analysis Model (Figure 1) is used to confront the Empirical Findings, collected at CGI, in the Analysis chapter.

5.2 PREREQUISITES FOR SUCCESSFUL KNOWLEDGE MANAGEMENT

5.2.1 CGI's 70/20/10-Model for Learning and Development

The 70/20/10-Model for Learning and Development (see Figure 4) is the central learning and developing model of the global consultancy firm CGI. It is a part of the Management Foundation, and a globally adopted model to work from in developing the employees and

conducting knowledge management. The authors find that the model represents the Prerequisites for Successful Knowledge Management which can be found in the Theoretical Analysis Model (Figure 1). It provides all CGI units globally with a blueprint on how to conduct knowledge management.

This model is the core of CGIs knowledge management practices, coupled with specific routines that fit inside the parts of the model as well as more open parts that may be adapted to the local setting. Highlighting the importance of utilizing existing knowledge as well as creating new knowledge, the Knowledge Based View (KBV), is built on knowledge creating the one and only sustainable competitive advantage for a firm (Grant, 2002). The 70 % represent the learnings that are connected to actually working with a certain issue, documentation, learning by doing, as well as through interactions with more senior people at the office or client. The 20 % are learning through other people, which is largely network based, through mentoring, coaching, lunches or other semi-formal or informal activities. The final 10 % are through more formal trainings such as on-demand-learning tools, lectures or external vendors.

5.2.2 Knowledge Based Culture

The 70/20/10-Model (see Figure 4) ensures that all the global CGI subunits are provided with a Knowledge Based Culture (see Figure 1). It secures that similar ways of creating learnings and developing the employees are applied on a global scale. Moreover, drawing on the ideas of Ansari et al. (2012), it is able to create common values, norms and beliefs towards knowledge management, which make the employees feel correlated. Following the ideas of Cramton (2001), a common knowledge base improves communication and reduces the time necessary in sharing knowledge. The 70/20/10-Model shows that CGI values knowledge and knowledge management highly, which Davenport and Prusak (1998), argue is a success factor.

However, the authors found that the two different studied subsidiaries vary slightly in regard to the Knowledge Based Culture (see Figure 1).

In CGI Sweden, the managers have chosen to focus on the 20 % of the model, the Learning through Others (see Figure 4). The culture is based on every person creating their own network, creating a web of connections, that can be used for sharing or gaining knowledge faster through interpersonal interaction. Learning through Work Experience, the 70 % of the model, is mostly through senior-junior interaction, either at the client-site or office.

CGI India's Knowledge Based Culture focuses more on Learning through Formal Training and Learning through Work Experience. This can be seen in their extensive use of documentation to speed up the knowledge sharing process. While the 20 %, Learning through Others, goes through the manager's network.

5.2.3 Structure

It is argued in theory (Ansari et al., 2012; Walczak, 2005; Ruikar et al., 2006) that the Structure (see Figure 1) of a firm needs to be horizontal and flexible to handle knowledge management efficiently in an MNC. CGI has a structure favourable for knowledge management which allows for decisions to be taken on a local level. Such a structure is needed to successfully implement the 70/20/10-Model (see Figure 4). Especially, Learning through Others and Learning through Work Experience are found to be facilitated through CGI's flexible organisational structure. Following the thoughts of Ansari et al. (2012), this affects resources, humans, materials and is an important organisational process.

The studied subsidiaries have slightly different implementations, where CGI Sweden has a large focus on Trust to facilitate knowledge sharing, while CGI India focuses on Hierarchy as a facilitator for knowledge sharing.

5.2.4 Strategy and Leadership

Sunassee and Sewry (2003) finds that knowledge management strategy needs to be aligned across the organisation. Furthermore, best practise implementations must be tried and tested, as well as implemented across the whole organisation (Ansari et al., 2012). The 70/20/10-Model (see Figure 4) allows the leaders to create a strategy that works in their local context while staying true to the overall organisational strategy, following the ideas of Sunassee and Sewry (2003). CGI is aware of the importance of Strategy and Leadership (see Figure 1), especially considering that CGI is a global consultancy firm, in regard to their knowledge management activities. All managers were aware of the fact and highlighted that they play an important role in leading the culture and making changes. They experience that they are the bridge between the subsidiary's strategy and the consultants. The leaders are seen to have an important role in knowledge management and through leading by example and aligning strategy, find that they can easier make changes and encourage value-creating activities (Mathi, 2004).

The subsidiaries implement this slightly differently, CGI Sweden focuses on trust, networking and leading by example to disseminate and implement the overall CGI strategy in regard to knowledge management. CGI India on the other hand focuses more on hierarchy, leading by example and structured documentation to implement its knowledge management strategy.

5.2.5 HR

The employees are seen as the social enabling factor of knowledge management, since they are responsible for knowledge creation and distribution (Adenfelt & Lagerström, 2006). Furthermore, it is the HR's role to ensure that employees working with knowledge management practices possess the right expertise and skills (Ruikar et al., 2006). CGI's HR, or rather management, is well aware of their important role in creating processes that allow the employees to make use of the 70/20/10-Model in a way that is most beneficial for each individual. Moreover, CGI tries to employ people that already possess the right mindset and culture towards knowledge management. CGI further highlighted the importance of staffing and developing the current employees as one of the most important factors in succeeding with knowledge management.

This is found to be especially prevalent in CGI Sweden, where HR creates the supportive structure. This then allows management to support individuals to take part in different training and development programs, such as the Next to Lead program. In India the managers are often responsible for deciding in which area their consultants need to develop their skills.

5.2.6 IT

IT is a key enabler for knowledge management (Holt et al., 2007; Davenport et al., 1998), as it can store large quantities of data and increase the access to the knowledge repositories. Especially KMS are reliant on IT, but also the 70/20/10-Model incorporates IT. For example, CGI utilises IT for online courses in the Learning through Formal Training, as well as a facilitator for networks and interpersonal interaction. CGI is in possession of a large number of KMS and other IT tools that facilitate the creation, storage, and distribution of knowledge in many different ways. In sum, CGI possesses a sufficiently high level of IT, which presents a favorable condition for successful knowledge management.

However, there are some differences between the subsidiaries in regard to IT usage. CGI Sweden use IT more on-the-go, and are more reliant on IT in regard to Learning through Others

and Networks, mostly utilising phone or Skype. While CGI India are more reliant on IT in regard to documentation, but usually only use IT when Learning through Others and Networks with international colleagues, otherwise face-to-face communication is preferred.

5.2.6.1 CGI's Knowledge Management Systems

As found in the empirical findings, the below listed KMS are used by CGI in order to facilitate knowledge sharing.

- CynerGI (intranet platform)
- CynerGI Conversations (intranet platform and forum function)
- Proposition Catalogue (containing project propositions, sales presentations, training materials and so on)
- Ensemble Sites (internal file sharing servers)
- SharePoint - used for each project and overarching
- Skype
- Webex (internal meetings system)

The authors find that these systems are enough to fulfil the requirements of the IT factor in the Theoretical Analysis Model (see Figure 1). However, the authors agree with the consultants and managers of CGI Sweden that claim that they can increase their knowledge sharing if the KMS were available on their Smartphone, or at least can be accessed on any computer, not only the specific CGI computers.

5.3 FAILING FACTORS KNOWLEDGE MANAGEMENT

5.3.1 Unwittingly Conducting Knowledge Management

Overall, the authors find that CGI is unlikely to face the risk of Unwittingly Conducting Knowledge Management, this as they know the importance of knowledge management and focus on these activities. However, the authors did identify the Ensemble Sites as one potential aspect that could be a risk, which is discussed below.

The Ensemble Sites are a bit of an enigma to the authors, consultants and managers at both CGI Sweden and India are constantly utilising the different templates and guides from the Ensemble Sites, but when asked they are not aware of it. Only through the authors looking through different documentations and extensively searching the Ensemble Sites, this fact was realised.

All of the employees, both consultants and managers, of CGI only mentioned best practices, Lessons Learned and other types of documentation templates, without discussing the source, with the exception of one manager whom is very slightly involved in the Ensemble Sites. The authors believe that there could be a risk in regard to this as when following the ideas of Birkinshaw (2001), when implementing a new technique or method without understanding, it can lead to failures in the knowledge management.

The authors of this report would like to analogize the Ensemble Sites to a digital storage shed, that employees access without thought or contemplation. To the authors this represents a risk as it is close to the Unwittingly Conducting Knowledge Management factor in the Theoretical Analysis Model (see Figure 1). This can lead to deterioration of the knowledge base, unwittingly sharing old best practices or utilising documentation that is outdated as the source is unknown. Therefore, the authors find that the Ensemble Sites can potentially be classified as a Failing Factor, if they are not updated nor implemented and conceptualized in a more user-friendly way. The exception is if the employees actually use the latest version of the template or best practice every time they create documentation or implement a practice.

5.3.2 IT Used as a Substitute for Social Interaction

The authors do not find any such instances in the case study of CGI. IT is strictly seen as a facilitator and complement for discussions, networking, creation and sharing of knowledge, and not as a substitute. The various KMS are used as fundamental enablers and facilitators of knowledge management where knowledge can be stored, shared, and leveraged throughout the organisation. However, CGI is well aware of the fact that the application of KMS always require a certain degree of human interaction to work successfully. CGI uses KMS to connect to the person “owning” the knowledge (Nonaka, 1994), rather than directly taking and applying the knowledge.

5.3.3 Neglecting to Create New Knowledge

The potential Failing Factor of Neglecting to Create New Knowledge (see Figure 1), is not found to be of much concern to CGI. CGI has a focus on creating new knowledge through the interpersonal interactions that occur both at CGI Sweden and CGI India. Taminiau et al. (2009), find that innovation and new ideas are mostly created in informal knowledge sharing with other consultants and superiors. This CGI captures by Learning through Working or Learning through

Others (see Figure 4). Bottom-up learnings is something the managers at CGI Sweden find could potentially be even better applied than today.

Birkinshaw (2001), finds that a firm needs to tap into new knowledge from outside the boundaries to update and renew the knowledge base. CGI does this by Learning through Formal Training (see Figure 4), where they take in external experts to bring in new knowledge, CGI India are found to apply this means of creating new knowledge extensively.

Learning from clients represent a potential that CGI could increase, the managers at CGI Sweden agree that there are currently no good routines on how to capture these learnings. Instead, it is mostly carried out in an unstructured and ad-hoc manner. The authors find that this is one area where large benefits could be gained for the specific case company specifically at CGI Sweden. Although the authors realise that this is both on a case-to-case and even subsidiary-to-subsidiary basis, which is why less focus will be spent on this discussion.

5.3.4 Introducing Techniques without Understanding

The only example found through the study of CGI Sweden and CGI India in regard to the potential failing factor of Introducing Techniques without Understanding (see Figure 1), was the Competences and Practices. They are only implemented at Customer-Centric subsidiaries, such as CGI Sweden, not at Delivery-Centric subsidiaries such as CGI India. As of right now, they are not achieving the purpose they were supposed to. Where they are implemented the Competences and Practices were found to not be fully understood, nor frequently used by many employees. This was shown to hold true both for consultants as well as managers, although the confusion was more prevalent among the consultants. Here the potential solution as seen by Birkinshaw (2001), is to create the understanding of the “new” technique. Through creating an understanding followed by both the motivation and preferably the need to use the Competences and Practices (Birkinshaw, 2001), CGI can mitigate or entirely remove this current knowledge management failing according to the authors. This follows that through creating an understanding, motivation, and need the employees should start utilising the Competences and Practices as they were originally supposed to be used. The newly responsible manager for the Competences and Practices at CGI Sweden is already starting on how to create understanding among the employees and the motivation to use it through the communication of the leaders.

Summarily, CGI, as discussed above can only be proven to be impacted by the failing factor of Introducing Techniques without Understanding through the Competences and Practices, which

management is aware of and currently trying to change. CGI may or may not be impacted by Unwittingly Conducting Knowledge Management through the Ensemble Sites but the authors cannot conclude if the employees use the latest version of templates or not. CGI is found to be well aware of IT Used as a Substitute for Social Interaction and has therefore thoroughly mitigated this failing factor. CGI is furthermore found to be unlikely to be impacted by Neglecting to Create New Knowledge, although improvements are possible in the specific case of CGI Sweden's client learnings.

5.4 Factors Influencing Knowledge Sharing

5.4.1 Characteristics of Knowledge

The authors identify three types of knowledge that CGI is dealing with, tacit knowledge, explicit embedded knowledge, and explicit rationalized knowledge, as per the Characteristics of Knowledge (see Figure 1) (Weiss, 1999; Nonaka, 1994; Smith, 2001). CGI as a whole, deals with all three types of knowledge and have created the 70/20/10-Model (see Figure 4) to allow for handling all types of knowledge. Ipe (2003), finds that the value attributed to knowledge impacts how knowledge is shared. Individual knowledge is often associated with individual reputation, status and career prospects, which affects the individual employee's motivation to share knowledge (Andrews & Delahaye, 2000; Jones G Jordan, 1998; Alvesson, 1995). This means that there is a risk for knowledge hoarding when knowledge sharing could diminish the value of the employee, CGI is aware of this and are therefore incorporating sharing incentives to mitigate knowledge hoarding.

The 70/20/10-Model can be adapted to the local context, depending on the types of knowledge the specific subsidiary handles. CGI has the ability to adapt their knowledge management to all types of Characteristics of Knowledge. CGI has the KMS to handle the explicit rationalized knowledge. The explicit embedded knowledge is handled through a combination of KMS and networks. While the tacit knowledge requires interpersonal interactions, and therefore is mostly handled through networks, although it is supported through different tooling such as the KMS, events such as After Work and Leader Lunch, and mentoring programs.

This is exemplified by CGI Sweden, that deal mostly in tacit knowledge, in combination with the client-specific knowledge which falls in the category of explicit embedded knowledge (Weiss, 1999). Therefore, CGI Sweden is found to heavily rely on networking on all levels, not

solely managers, but every single employee is expected to create and maintain their own personal network, and the KMS are mostly used for networking purposes. CGI Sweden focuses on Leader Lunches, After Works, mentoring programs, Next to Lead program, among other network and informal facilitating events and programs.

CGI India mostly seems to handle explicit rationalized knowledge, which is easily codifiable and applicable as it has been separated from the specific context (Weiss, 1999). Furthermore, there appears to be some explicit embedded knowledge but only little tacit knowledge. Hence, CGI India is relying more on IT tools, digital knowledge databases and other KMS-applications to capture, gather and document the explicit rationalized knowledge that they often deal with. That knowledge which needs to be understood through interpersonal interactions is understood with the help of the managers' networks. The authors believe that the lesser need of CGI India to handle tacit and explicit embedded knowledge is the reason for why not all employees need to create their own networks. The trade-off between time, which is limited for consultants (Taminiau et al. 2009), and speed or convenience is currently not worth it for CGI India. This the authors believe could change, if the type of knowledge that CGI India handles changes towards more tacit knowledge being handled.

5.4.2 Motivation

Motivation, as seen in Figure 1, is a further factor that influences knowledge sharing. Through emphasizing the importance of knowledge in its Knowledge Based Culture, as well as throughout the 70/20/10-Model (Figure 4), CGI is creating the motivation to share knowledge. Furthermore, the leaders focus on hiring individuals that already possess a certain degree of motivation for knowledge sharing. Through these measures CGI is able to create an environment where knowledge sharing is promoted. Furthermore, all employees are willing to share knowledge which creates reciprocal flows of knowledge. According to Hendriks (1999), reciprocity is an important motivator to share knowledge, which CGI is able to leverage through the leaders leading by example and creating trust among those sharing knowledge. This follows the thoughts of Ipe (2003), discussing how the trust between sender and recipient acts as a motivator or demotivator for knowledge sharing. Huber (1982), finds that higher status and power of the recipient also acts as a motivator.

There are other motivating factors other than the above less tangible, as Gupta and Govindarajan (2000) find, knowledge sharing is increased when rewards for sharing are

implemented. Bartol and Srivastava (2002), find that monetary reward systems have an impact on the contribution to the knowledge base of the company. Although Bartol and Srivastava (2002) find that enhancing personal expertise as well as recognition of others as well as other intangible incentives are the most important for informal knowledge sharing interactions. CGI Sweden has a partly team-based incentive system to increase the knowledge sharing activities, as well as strong trust and recognition structures through their networks. While CGI India utilises the hierarchy and power structures to increase motivation for knowledge sharing.

5.4.3 Formal and Informal Sharing Opportunities

CGI is found to possess the ability to create both Formal and Informal Sharing Opportunities (see Figure 1). Especially, the 10% of the 70-20-10-Model (see Figure 4) shows that CGI is accounting for the formal sharing opportunities, as it consists of formalised trainings. The 20 %, Learning through Others, consists of informal opportunities, such as networking activities and leader lunches. There are also combinations, which can be exemplified in the Next to Lead program at CGI Sweden, which is created to disseminate knowledge through both formal and informal means, from formal courses and informal networking events.

The Formal and Informal Sharing Opportunities represent the two types of situations where knowledge is shared (Ipe, 2003; Rulke & Zaheer, 2000; Taminiau et al., 2009). These are in formal situations, such as training programs or KMS, that are designed for the purpose of disseminating knowledge. The informal situations, or relational learning, are actually where most knowledge is shared (Truran, 1998), these are mostly occurring through social networks. CGI is well aware of the importance of creating above mentioned Formal and Informal Sharing Opportunities. CGI Sweden is found to make use of more informal sharing opportunities compared to CGI India, which has more focus on formal sharing opportunities.

5.5 FACTORS FROM EMPIRICAL FINDINGS

5.5.1 Time

Time was found to be highly important for the knowledge sharing activities through the interviews, although different aspects of time were discussed. The authors argue in the below parts, that Time is a prerequisite for knowledge sharing and management.

The authors believe that the prerequisite factor of Time functions through: Actual Time multiplied by Perceived Time. **Time = [Actual Time × Perceived Time]**. This means that, when either Actual Time or Perceived Time equals 0, the Time equals 0 as well, and therefore the individual employees do not commit to take part in knowledge management and sharing activities. The combination of Actual Time and Perceived Time thus makes Time into a prerequisite for knowledge sharing and management.

5.5.1.1 Actual Time

The Actual Time to share knowledge is an important factor, according to most of the consultant respondents there have been occasions where they were unable to share knowledge as there simply was no time actually available. This follows the ideas of Taminiau et al. (2009), that consultants are often faced with time constraints. Two consultants mentioned that this only happened to them when they were already working overtime and were in a delicate stage of a project, and therefore do not have any additional time available. The managers agreed that there are time constraints for the employees, for example, one manager stated that they could and probably should, allow for more time to create documentation. The Actual Time is a factor that the authors argue to be a part of the prerequisite factor of Time, together with the Perceived Time. With increased Actual Time, the knowledge being shared is likely to increase both in quality and quantity, as there is more time to conduct the sharing process.

5.5.1.2 Perceived Time

The Perceived Time to share knowledge is an important factor, some of the respondents at CGI Sweden were discussing the importance of the employees to have the perceived time to share knowledge. Taminiau et al. (2009), find that consultants are often faced with time constraints, which is in line with the managers' and consultants' responses. Building on the thoughts of Yew Wong (2005), it is the leaders' responsibility to allocate time and resources to make knowledge management successful, which follows the thoughts of the management respondents at CGI. A few of the consultant respondents mentioned that some consultants perceive that they do not have much time to share knowledge, and so do not share much knowledge at all. Other employees usually perceive that they have time to share knowledge, and therefore share very much knowledge, as they prioritise knowledge sharing over other activities. The authors therefore argue that, if the employees do not perceive that there is time to share, the employees will not share any knowledge at all. Therefore, the authors find that Perceived Time to share in combination with Actual Time to share, is a prerequisite to sharing

knowledge. The authors denote this prerequisite as the factor of Time. The Perceived Time is found to be built through the communication from leaders. According to some of the employees, both management and consultants, when the communication follows along the lines of: “always be available for billable work”, the Perceived Time to share is reduced. If the communication instead follows along the lines of: “it is important that we spend time to share knowledge and learn new things”, the Perceived Time to share is increased.

5.5.1.3 Billability or Learning for the Future

The authors find that both “Billability” and “Learnings for the future” are somewhat of opposing factors that create a dilemma for the organisation, called Billability or Learning for the Future. This dilemma is viewed as the underlying misconception from the employees that management does not wish to give them time to learn in new areas outside of projects. These interests can, from a company view, give rise to new project opportunities and should therefore not be seen as negative, according to the authors. The leaders of CGI Sweden, in particular the Focus Group and VPs, support the thoughts of the authors in that they do not find learning for the future to be negative, rather it is perceived to be important. The Focus Group realised that the dilemma creates communication that is often contradictory, which is supported by the findings of the authors based on the consultants’ responses.

Managers find difficulty in communicating these two sometimes opposing aspects. The managers tend to mostly communicate that it is important for the consultants to have a high degree of billability toward the customer, so as to earn money. From this analysis, the authors realised that this is not really covered by theory, however the discussion by Fahey and Prusak (1998) somewhat touches upon the discussion. Fahey and Prusak (1998) find that organisations tend to focus on knowledge of the past or present, rather than emphasising its future creation. The authors mean this could be interpreted as a step towards the Billability or Learning for the Future discussion. This in the sense, that to focus on future knowledge creation a consultancy firm might need to reduce its billability to make room for future learnings and knowledge creation. Although, the study by Fahey and Prusak (1998) is not conducted on consultancy firms, which means it is not wholly encompassing of the problematic nature which arises in this type of knowledge intensive firm and discussion of the consultant being billable.

The dilemma is also highlighted by the CGI Sweden consultants, who feel that they oftentimes lack time when conducting documentations or recording Lessons Learned. Both members from the management team as well as the consultants, stated that no time for documentation, or

capturing and codifying Lessons Learned are budgeted in projects per se. Hence, it is up to the manager, project leader, and the individual consultant to decide whether and how much time they want to invest into documentation. Therefore, the degree of billability directly influences the Actual Time (see Heading 5.5.1 Time and 5.5.1.1 Actual Time) directed towards these activities, which follows the ideas of Taminiau et al. (2009) in that time for knowledge sharing activities (in regard to innovation) is restricted in consultancy firms. The authors interpret this high degree of required billability as being the underlying reason for oftentimes lacking or less useful documentations. This follows what is found by Taminiau et al. (2009, p.45) "*a consultant does often not find the time to codify his/her knowledge."*. Furthermore, the high billability requirement also indicates that employees will have less time for further development and learning sessions aside from their projects, which was supported by the employees. Hence, in such a situation the degree of billability can be argued to directly influence the discovered Time factor, through the communication of the leaders. If learning for the future is more prioritised, at the cost of billability, the Time factor will be increased as the focus shifts even more toward knowledge management and sharing. This in effect represents that Billability or Learning for the Future can be seen as the effort the company is willing to expend on knowledge management.

However, CGI Sweden also recognises that it is important to learn for the future in the IT consultancy business, otherwise one manager estimates that the consultant could become obsolete in as little as three years. Hence, they highlight that Lessons Learned, documentation, as well as learning and development sessions, aside from the specific project are an important factor for both the employees as well as the organisation. The authors find that these are examples of what is impacted by the Billability or Learning for the Future discussion, in effect *why* activities are undertaken. Furthermore, the managers communicated that these learnings are not solely for CGI, rather they are primarily for the individual employee's benefit to stay relevant to the market and only secondarily for CGI. When the employee is Learning for the Future, it also sends a message to the clients as well as to CGI internally. This message is interpreted by the managers that the employee is willing and able to climb the career-ladder faster and can then be assigned to projects within areas of interest to the employee. The authors find that, in essence this impacts the Motivation (see Figure 1) for the individual consultant to learn for the future.

The authors noted that CGI India also have Billability or Learning for the Future in mind, although the manager at CGI India names it as resource optimisation. It is taken into consideration both when discussing the possibilities of documenting day-to-day learnings, as

well as when deciding what knowledge to share with whom. The authors argue that the time to document day-to-day learnings would affect the Actual Time of the Time factor. As previously argued, Time is heavily influenced by the choices made in regard to Billability or Learning for the Future since it shows the effort expended on knowledge management and sharing. The manger discusses if they should allow a certain employee to learn in a new field, even though there is no direct need in the current or likely next project. This, the authors argue, is practically a discussion of the level of Billability or Learning for the Future.

5.5.2 Strategy and Leadership Conducts HR Functions

The HR functions that are described in the theoretical framework, where the HR team is responsible for ensuring that the employees have the right skills (Ruikar et al., 2006), are seen to be conducted by the leaders at CGI. The HR functions such as accelerating the knowledge management programs (Soliman & Spooner, 2000), are seen to be handled by either the global and local strategy, or the leaders. Therefore, the authors argue that the important facilitating and enabling factors that are discussed in the HR factor of the Theoretical Analysis Model (Figure 1), are incorporated into the Strategy and Leadership factor.

5.5.3 Tooling

The authors find that the IT factor of the Theoretical Analysis Model (see Figure 1), should be expanded and include all types of tooling, that is the IT as well as additional tools. The Tooling factor is combined with the previously described IT factor (see Heading 5.2.6). The authors find that all types of Tooling act as Prerequisites for Successful Knowledge Management. Even though Tooling is oftentimes reliant and facilitated through IT, it also includes non-IT factors and therefore needs to be added to the Theoretical Analysis Model. The Tooling of CGI is discussed in the below part.

Templates are something that CGI is working with to a large extent. Such templates can take on the form of templates for learning, Lessons Learned, process descriptions and so on. The authors find that through creating the templates, the cohesion of the organisation is greatly increased. This also helps to ensure that there is a common knowledge base in the company, which follows the thoughts of Hendricks (1999) and Cramton (2001) which highlight the importance of common knowledge to facilitate knowledge sharing. CGI also utilises guides and similar tools as a way to document learnings. In fact, CGI India employees have documentation specific hours set of in projects to share their knowledge. The CGI India employees further

mentioned that having a specific amount of time reserved for documentation is perceived as being useful, since the documentation allows them to capture and store newly gained knowledge which can then later on easily be distributed. Some of the respondents in CGI Sweden highlighted the usefulness of for example the Proposition Catalogue, where CGI has guides, templates and examples from previous projects and proposals. These are only useful when in the specific situation, but can save much time in those cases. Other tools which CGI utilises are for example workshops, Competences and Practices, and networking events which are all different tools for transferring knowledge. These tools are often affected by the Billability or Learning for the Future factor according to the authors, as the choice decides the level of effort expended and the value of the knowledge and therefore documentations.

5.5.4 Client Learnings

Throughout the research process the authors found that CGI has not emphasized the importance of Client Learnings. Due to the fact that not much value has been attributed to this kind of learning, CGI has a rather weak structure to capture, store and share Client Learnings. Currently, they are mostly carried out in an unstructured and ad-hoc manner. However, one CGI Sweden manager really highlighted the potential of Client Learnings by stating that CGI's clients are usually very sophisticated and highly technological firms, that possess valuable knowledge. A consultant highlighted that capturing Client Learnings through regularly documenting lessons learned would increase their knowledge base and competitiveness. The consultant further stated that they are lacking a structured approach towards Client Learnings from CGI. The authors find it surprising that CGI does not focus more on capturing Client Learnings. As argued by Fosstenløkken et al. (2003), knowledgeable clients are considered a key factor for developing and acquiring new knowledge, and learnings from these clients represent a valuable source of knowledge for consultancy companies. Based on the theoretical findings, the authors believe that creating a more structured way of how to capture and share the client learnings could increase the levels of new knowledge and add to the knowledge base. In sum, by focusing more on capturing, storing, and distributing Client Learnings, CGI can further reduce the evaluated potential Failing Factor of Knowledge Management that is Neglecting to Create New Knowledge (see Figure 1).

5.6 Discrepancies in Knowledge Management – Why Knowledge is Managed in the Current Manner

5.6.1 Characteristics of Knowledge

The authors find that Characteristics of Knowledge, as per Figure 1, is more extensive than previously thought. The authors argue in the below part that Characteristics of Knowledge is affecting the whole knowledge management, not just the knowledge sharing, and is a part of the explanation as to why CGI conducts knowledge management in the manner they do. Therefore, the authors argue that the Characteristics of Knowledge not only has an extensive impact on overall knowledge sharing, instead it influences the whole knowledge management. This has the effect that its position in the model needs to be re-evaluated to fit into the new role which the authors find that Characteristics of Knowledge actually has in the knowledge management of a global consultancy firm.

Through studying CGI overall, and the allowances for local context specific changes, the authors find that they can mostly be described by the Characteristics of Knowledge, rather than national cultural context, as exemplified by CGI Sweden and CGI India through the following argumentation. In the above Heading of 5.4.1, Characteristics of Knowledge was described as whether the knowledge is tacit, explicit embedded, or explicit rationalized (Smith, 2001; Nonaka, 1994; Weiss, 1999). It was further found that CGI has the ability to share and even create different kind of knowledge depending on the respective local context. The authors find that CGI Sweden oftentimes deals with tacit and explicit embedded knowledge as described by Nonaka (1994) and Weiss (1999). Whereas CGI India was found to heavily focus on processing and dealing with explicit embedded and explicit rationalized knowledge as described by Weiss (1999). This leads the authors to argue that the Characteristics of Knowledge impacts the Tooling, as different types of knowledge can be documented in different ways and with different levels of ease. This argumentation is supported by Smith (2001) in that explicit knowledge is easier to codify, and Nonaka (1994) that tacit knowledge requires the input of the "owner" of the knowledge.

As found throughout the course of this research, the two different studied subsidiaries not only tend to deal with different knowledge, they also applied a different firm structure. CGI Sweden is structured in a Customer-Centric way whereas CGI India is structured in a Deliver-Centric

way, due to the different Characteristics of Knowledge they are handling. The authors found that the Characteristics of Knowledge and the Customer- and Delivery-Centric structure share a reciprocal relationship. Therefore, the authors argue to include the identified Customer- and Delivery-Centric factor into the Characteristics of Knowledge factor. In regard to CGI, the Characteristics of Knowledge can explain how knowledge management is conducted and why it is conducted in the way it is. This is argued to show that the changes are due to type of knowledge as well as Customer- or Delivery-Centric structures rather than national cultural context. Furthermore, they can also explain why different subsidiaries apply particular knowledge management practices and indicate why they are structured in a more Customer- or Delivery-Centric way.

In sum, due to the importance the Characteristics of Knowledge have in the studied organisation, and its impact on not only the knowledge sharing but more so the overall knowledge management practices and company structure overall, the authors claim that Characteristics of Knowledge are more influential than previously assumed. Therefore, the placement of Characteristics of Knowledge in the theoretical framework needs to be altered.

5.6.2 Billability or Learning for the Future

The factor of Billability or Learning for the Future is found to greatly impact all different aspects of how CGI conducts knowledge management. In essence, it is a measure of the level of effort that the organisation is willing to expend for their knowledge management. This means that it impacts the value of knowledge, the willingness to spend time on knowledge sharing, and finally the time and effort spent on knowledge management. This the authors argue, means that with different focus on Billability or Learning for the Future, the organisation is likely to change their Culture, Structure, Strategy and Leadership, IT and HR (see Figure 1) to better fit their choice of Billability or Learning for the Future. That is, all the Prerequisite factors will be affected. Furthermore, it is likely that the risk of conducting knowledge management that falls within the Failing Factors for Knowledge Management (see Figure 1), will be reduced when the time for Learning for the Future is increased. Conversely, the risk increases when Billability is the focus. This follows as more or less time and effort is spent on knowledge management. Furthermore, it will affect the Motivation factor (see Figure 1), as the incentives, both formal and informal, will be increased or decreased depending on the choices made in Billability or Learning for the Future. Finally, the choice will affect to what extent Formal and Informal

Sharing Opportunities (see Figure 1) will be created and possibly also the type of sharing opportunity.

From the empirical findings, Tooling as well as Strategy and Leadership (see Heading 5.5.2 and 5.5.3) were found to be more encompassing than they are represented in the Theoretical Analysis Model (see Figure 1). Furthermore, a new factor which was not included in the original Theoretical Analysis Model (see Figure 1) was found to be the factor of Time (see Heading 5.5.1, 5.5.1.1 and 5.5.1.2). The Billability or Learning for the Future factor is found to be influencing all of the above-mentioned factors of the initial Theoretical Analysis Model (Figure 1), as well as the extended and new factors identified. Due to these reasons, and the previously discussed need to alter the placement of Characteristics of Knowledge, the authors decided to revise the Theoretical Analysis Model.

5.7 Revising the Theoretical Analysis Model

The below Consultancy Knowledge Management Model (CKM-Model), in Figure 5, is based on the Theoretical Analysis Model (see Figure 1), but is expanded upon and adapted to fit the realities of a global consultancy firm in their knowledge intensive context. Where Characteristics of Knowledge and Billability or Learning for the Future are found to be considerations that highly impact a firm's knowledge management practices. The previous IT factor was expanded to include documentation, templates and guides and therefore renamed to Tooling. The activities of the HR factor are seen to be mainly handled by leaders, and is a part of the strategy, and therefore the HR factor is fused into the Strategy and Leadership factor. Furthermore, the factor of Time which has two components, Actual Time and Perceived Time, is found to be a prerequisite to knowledge management as it regulates if knowledge management will be conducted at all, as well as to what extent knowledge management is prioritised when coupled with Billability or Learning for the Future.

5.7.1 Consultancy Knowledge Management Model

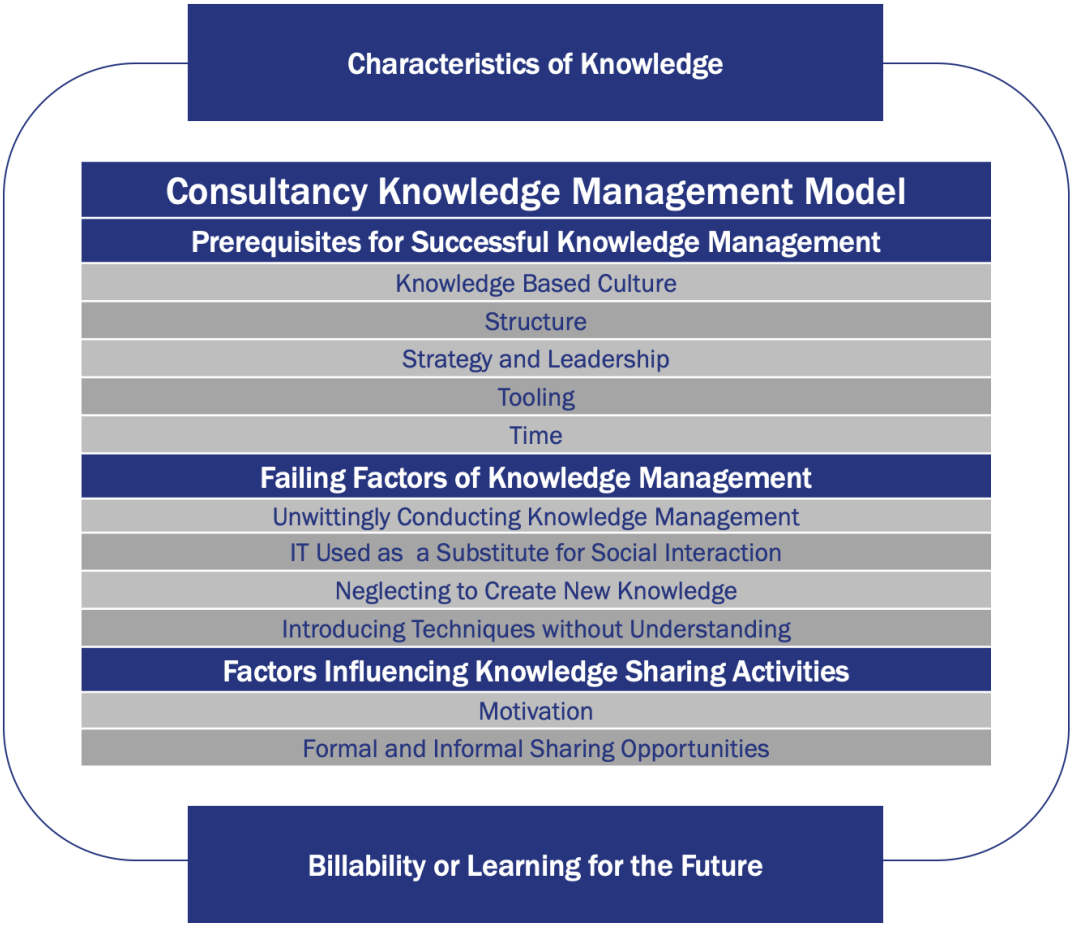

Figure 5 the Consultancy Knowledge Management Model (CKM-Model)

The Consultancy Knowledge Management Model (CKM-Model), seen in above Figure 5, is the result of the report's findings. Through confronting the Theoretical Analysis Model with the Empirical Findings, the authors identified new factors to be added into the model. The authors find that the Characteristics of Knowledge as well as Billability or Learning for the Future affect the overall knowledge management of an organisation. To visualise their overall impact, the Characteristics of Knowledge and Billability or Learning for the Future are encircling the model (see Figure 5).

6 CONCLUSION

The CKM-Model (see Figure 5) is used by the authors as a means of answering the research question of:

"How does a global consultancy firm handle knowledge management and knowledge sharing in an international setting, and why is it handled in that manner?"

6.1 MAIN CONCLUSIONS

For a global consultancy firm to know how to handle knowledge management and knowledge sharing in an international setting, the firm needs to first of all tick-off the Prerequisites for Successful Knowledge Management as identified in the CKM-Model in Figure 5. That is having or creating a Knowledge Based Culture, where knowledge is valued, and sharing is preferred. Having or creating a Structure that allows for knowledge management and sharing. Creating global and local strategies that align and take knowledge management into account to be executed by the leaders as per the Strategy and Leadership factor. Provide the Tooling such as IT and documentation necessary to actually be able to conduct any knowledge management and sharing. Finally, through providing the Time necessary to conduct knowledge management and sharing through both Actual Time and Perceived Time the prerequisites are fulfilled. Furthermore, in a global consultancy firm, the foundations for knowledge management need to be well documented and ingrained in the corporate culture. This allows the subunits to more easily understand and make use of the foundations and adapt them to their local context. According to Donnelly (2008), the prerequisites follow a universal pattern inside the firm, disregarding national context, when studying two culturally and economically close subsidiaries in the UK and Netherlands.

The global consultancy firm also needs to take the Failing Factors of Knowledge Management into consideration as per the CKM-Model (Figure 5). The failing factors need to be mitigated or removed to ensure the possibility of successful knowledge management practices across the global consultancy firm. The mitigation of the failing factors is mostly reliant on the subunits, although the HQ or knowledge management responsible unit, also plays a role in vetting best practices before allowing for global dissemination (Arvidsson, 1999).

In respect to knowledge sharing specifically, there are additional factors that the global consultancy firm needs to handle as per the CKM-Model (Figure 5). The Motivation to share knowledge impacts the knowledge sharing activities directly and summarily the global consultancy firm should actively work with creating an environment where motivation to share matches the level of preferred sharing. Furthermore, the creation of and allowing for Formal and Informal Sharing Opportunities to happen, should also match the preferred level of sharing.

The global consultancy firm also needs to deal with some larger and more overarching considerations, both on a global and local level, in regard to the Characteristics of Knowledge which are handled and the preferred level of Billability or Learning for the Future, as per the CKM-Model (Figure 5). The Characteristics of Knowledge factor influences how all other factors should be aligned both on a global and local level. The Billability or Learning for the Future factor affects the prerequisite factors in the CKM-Model (Figure 5), as well as the preferred level of sharing in regard to the Factors Influencing Knowledge Sharing, that is the Motivation and the Formal and Informal Sharing Opportunities. Finally, the Billability or Learning for the Future can indirectly affect the level of risk in the Failing Factors of Knowledge Management in the CKM-Model (Figure 5), as it impacts the time and effort a firm is willing to spend on knowledge management activities.

In addition to the above impacts of Characteristics of Knowledge and Billability or Learning for the Future, they are even found to explain why some contextual differences occur. The Characteristics of Knowledge in particular affects how the knowledge management needs to be adapted to the local context, as it deals with the type of knowledge as well as how the subunit decides to face the choice of Customer- or Delivery-Centric structure. The subsidiary should also consider how to capture the client-learnings. These aspects affect how the local subsidiary is likely, to adapt the Strategy and Leadership as well as the Structure to fit the local context. This opposes the findings of Donnelly (2008), where no changes were found between the culturally close subsidiaries that were studied. The additional cross-cultural comparison of this report, where culturally distant subsidiaries were studied, adds to the existing research, as local adaptations are found to exist and be affected by the above-mentioned factors. The Billability or Learning for the Future, which indicates the value of knowledge sharing within a firm, is a vital factor that is able to explain why certain subunits of a global firm carry out knowledge management differently than others. Furthermore, it also directly impacts how successful a global firm and its different subunits handle knowledge management in their respective cultural context.

6.2 CONTRIBUTION TO LITERATURE

The purpose of this report is to start bridging the research gap, as identified by Boussebaa et al. (2014) in regard to horizontal knowledge flows in "global professional service firms", as well as Donnelly (2008), highlighting that little comparative international research has been conducted on how knowledge is managed by consulting MNCs. Furthermore, Donnelly (2008) asks for more research on if and how the local context impacts the knowledge management, especially in a cross-cultural context such as considering a European and Asian subsidiary.

Through fulfilling the research purpose and answering the research question this study contributes to the literature. The study confirms previous research highlighting the importance of knowledge management in MNCs and affirms its importance for the consulting business in specific. The first contribution of this study can be found by adding a cross-cultural comparison of knowledge management practices in global consulting firms. Moreover, the study contributes to the literature by assessing the MNC's ability to create and distribute organizational knowledge within and across different subsidiaries in cultural remote contexts. Highlighting and introducing the "Billability or Learnings for the Future" dilemma is the second contribution of the study. Thirdly, the study contributes by evaluating the Characteristics of Knowledge and finds them to influence the knowledge management practices and structures of a consultancy firm.

6.3 LIMITATIONS

A limiting factor of this study was found to be the time constraints the authors faced throughout the research process. Not only the predetermined and limited time frame of the research process but also the point in time when the study was conducted represent limiting factors. Therefore, conducting a longitudinal study could provide additional value.

Another limitation is that the understanding of the case company's global knowledge management practices was accessed through the Swedish subsidiary, which in turn could present slight discrepancies from the HQ-perspective. However, through triangulating the gained access with the knowledge management practices described in the Management Foundation the authors reduced the risk of having a biased perspective.

Finally, choosing the case company, representing the only firm that has been researched in this report, can be seen as a further limiting factor. Even though an embedded case study was carried

out, the generalizability of this study is limited. Thus, to increase the generalizability of this study, conducting research on other case companies is required. However, if further research is conducted at other consultancy MNCs within the same industry, the findings would be expected to be similar.

6.4 Recommendations for Future Research

Following the previously discussed limitations of this study there is a need for future research. The authors call for more research in similar MNC consultancies present in different cultural contexts, or the same case company but at different subsidiaries. One suggested aspect is to directly include the HQ in such a study which would allow for a comparison between the HQ and other subsidiaries which are culturally or geographically distant to each other such as Americas, Europe and Asia.

As the processes and structures of the very dynamic IT-consulting industry are ever-changing, a longitudinal approach could give interesting insights. Moreover, studying another MNC in a less dynamic industry could further lead to valuable findings.

6.5 Managerial Implications

The report finds that fulfilling the prerequisites is necessary for any knowledge management but matching the prerequisites to the strategy and aims is also important and can facilitate an efficient knowledge management for the organisation. Mitigating the failing factors in knowledge management is recommended to have better knowledge management. Management should keep in mind that the extent to which client learnings can be absorbed is case and subsidiary specific. Keeping the motivation and sharing opportunities aligned with the strategy is recommended to avoid creating unnecessary frictions. Furthermore, the consideration of Billability or Learning for the Future is a key factor which greatly impacts knowledge management. This in combination with the Characteristics of Knowledge can help explain why there are discrepancies between subsidiaries, as well as give an indication as to how knowledge management could or should be handled. Management should take the Characteristics of Knowledge into consideration when creating strategies and structuring the different knowledge management practices in local settings. This should also be considered when contemplating the existing knowledge management practices in different subsidiaries.

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7.1 APPENDIX

7.1.1 Interview Guide

How long have you been working at CGI?

Could you shortly describe your role?

How does CGI support knowledge management?

How does CGI facilitate personal networks within the company?

What tools do you usually use for knowledge sharing?

What are the differences in communication when you or your team are working from afar?

What are the differences between working in a Swedish/Indian team and an internationally dispersed team?

How do you assess the current routines for knowledge sharing?

What could be better with the knowledge sharing routines?

What are the best tools for knowledge sharing at CGI in your opinion?

What do you think of the buddy- and mentoring program?

How involved are you in creating routines and making sure that they are followed?

What do you think are the most important parts for knowledge sharing?

What are the current routines for knowledge sharing?

Any other suggestions for improvements to knowledge sharing?

Anything else you want to add or you think we missed?

Can we contact you again if we need any further clarifications in the future?