CHALMERS

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The influence of the project leader's culture in virtual project teams

Master's Thesis in the Master's Programme International Project Management

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MARKUS HUNDT

Department of Civil and Environmental Engineering
Division of Construction Management
Chalmers University of Technology
SE-412 96 Göteborg
Sweden
Telephone: + 46 (0)31-772 1000

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ABSTRACT

AIM – The purpose of this research is to identify how national cultural factors influence virtual leadership in global virtual teams (GVT) that rely on communicating through information and communication technologies (ICT).

METHOD – The research design was qualitative in nature and focused on a single case study with a global company, whose headquarters are in Sweden, for an intensive examination of the specific context. Theoretical saturation was reached after seven interviewees (project directors, managers, and researchers) were provided by the case company. The interviews followed a semi-structured approach.

FINDINGS – Virtual leadership consists of task-, functional-, and social processes. Culture has no impact on task-related activities due to the rigid structure that the case company embraces to stimulate global collaboration. Functional- and social processes are influenced by the cultural intelligence and language comprehension of the project leader. A high level of cultural intelligence and the understanding of verbal and nonverbal language differences enables the project leader to overcome the limitations of ICT and geographical boundaries of GVT. It mitigates stereotypical attribution, subgroup dynamics, and enables individual contribution to the project.

CONCLUSIONS – This research supports the notion that culture and cultural diversity in GVT impacts the effectiveness of virtual leadership depending on the individual competences of the project leader in different processes.

Key words: virtual leadership, global virtual teams, culture, conflict management, team diversity, social categorisation, team cohesion, collaboration, motivation, trust, language, information and communication technology

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Preface

The intention of this research is to contribute to the current debate in virtual leadership; how external factors can influence the effectiveness of global project teams. Since globalisation is omnipresent and affects small- to large scale businesses, the insights of this research can be useful for future strategy developments in virtual collaborations to strengthen the competitive advantage. The research has been carried out from February 2017 to August 2017 for the dual award programme International Project Management at the Chalmers University of Technology in Sweden and the Northumbria University in United Kingdom. A total of seven interviews have been provided by the case company with its headquarters in Sweden.

Hereby I would like to show my sincere appreciation for all participants and interviewees who contributed to this research. The findings and results can only be traced back to the rich academic and professional experiences and knowledges of each participant that made this research possible. Therefore, I would like to thank Hannaneh Yazdi who provided me the interviews for the case study, and Petra Bosch who supervised and guided me throughout my research.

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Markus Hundt

1 Introduction

Throughout this chapter the reader is introduced to the background of the dissertation and why there is a need in answering the research question that is presented in the following section. Furthermore, the scope, the limitation, and the structure of this research are described to increase the comprehensive understanding of how the research question has been investigated.

1.1 Background

In today's globalised environment competition is omnipresent. Due to the rapid improvement of information and communication technologies (ICT), international organisations became more prevalent to compete with the market in higher levels of efficiency. It is acknowledged that international organisations create a superior market position by being flexible to alter team configurations based on project needs, overcoming temporal and geographical limitations, delivering around-the-clock accessibility, and having extended knowledge and competences available (Lee, 2013, Kirkman et al., 2012, Maylor, 2010, Stanko and Gibson, 2009). Correspondingly, it led to a movement towards global virtual organisations and global virtual teams (GVT) that were primarily characterised by utilising electronic media to collaborate and exchange information. In contrast to ad-hoc teams, this study viewed GVT as a project team that has at least two different working locations across the globe, where members are dedicated to collaborate towards a common goal with clearly specified deliverables for longer durations.

1.2 Problem statement

The management of GVT is evolving the traditional management framework, since coordination, commitment, and trust-building activities become critical for the virtual leader (Garton and Wegryn, 2006, Haywood, 2000). The virtual project leader has to invest more time and effort to meet similar performances in regards to face to face teams (Purvanova and Bono, 2009). This is because communication is performed through ICT that allows exchanging information across geographical boundaries. The absence of nonverbal cues, language barriers, differences in perceptions, time zones, trust issues, cultural differences, and information overload are just a few factors that have to be taken into consideration by the virtual project leader (Lee, 2013, Kliem, 2004).

It was identified that leadership is related to team performance and success for GVT (Hertel et al., 2005). Armstrong and Cole (2002) described that virtual leadership is one of the core activities of managing GVT to inspire members for discussions, generate clear expectation and goals, and dealing with the difficulties caused by ICT. Furthermore, Malhotra et al. (2007) distinguished virtual leadership by six functions, namely to establish trust, acknowledgment of diversity, management of virtual work-life cycle, monitoring progress through technology, enhance visibility of the roles and activities of members, and adjustment of motivation and reward system. Respectively, the definition of virtual leadership that was used for this research is summarised as the process of using interpersonal skills to coordinate the GVT and manage conflicts in a multicultural society that requires collaboration through ICT.

Furthermore, discussions have been raised whether leadership is influenced by intangible traits or technical skills. While on the one hand researchers have found that leadership styles advocate certain behaviours, so that leaders adapt their behaviour in response to situations (Purvanova and Bono, 2009, Judge et al., 2002), other studies identified that leadership is emergent and related to the context (Barrow, 1976). The latter argument is further supported by researchers who distinguished that successful leadership for virtual teams is related to flexibility (Purvanova and Bono, 2009), the degree of trust (Joshi et al., 2009), and also to the level of media richness (Huang et al., 2010, Hambley et al., 2007, James and White, 1983). Nonetheless, leadership in regards to its context has received limited attention in empirical investigations (O'Leary and Mortensen, 2010, Siebdrat et al., 2009, Kahai et al., 2007, Gibson and Gibbs, 2006).

Therefore, the aim of this study was to explore leadership in its cultural context, how virtual project leaders are affected by their cultural values in using their interpersonal skills to coordinate people and manage conflicts. In this context, the research of Hofstede (1993) was used to understand how culture is grounded in its value systems to influence leadership practices. The argument was based on the assumption that culture is shaping leadership, in contrast to Levitt's (1993) argumentation that leadership is similar across cultures. A correlation between culture and leadership could be seen in the research of Müller and Turner (2007) in which the authors portrayed that the nationality of the project manager had influence on project success criteria and project performance. Project managers, according to the authors, were more successful in their home culture and should be assigned from members of the local team. Furthermore in their previous study (2006) the authors discerned that project success is dependent on the leadership style of the project manager and the project manager's emotional intelligence and management intellect.

1.3   Research question

The interest of this study was to investigate whether cultural factors have also an influence on virtual team leadership and how culture influences interpersonal competences. Consequently, the intention of this research was to answer the following research question. The research question defined the overall direction of the study, whereas the sub-research questions were used as a support of answering the main research question.

Main Research Question: How is the culture of the virtual project leader influencing the management of GVT?

Sub Research Question 1: What are the characteristics of leadership types used for GVT?

Sub Research Question 2: How is cultural diversity defined in GVT?

Sub Research Question 3: How does the culture of multicultural teams affects conflict management, collaboration, and communication technologies?

1.4   Case company

As the research question was more explorative in nature, the interest remained on a single case study to elaborate a more intensive study of a specific context. The design of a case study is further explained in the justification of research design in **Chapter 3.1.1** and key characteristics of the case company are described in **Chapter 4**. The case company in general remained anonymously, though the location was considered by the interviewees as medium-sized and had its main location in Sweden with many sub-divisions within the global market. Interviews with people that had a manufacturing and engineering background were provided by the case company, who were project managers, directors, and strategists (which will from now on be summarised as 'project leaders') that experienced in some form leadership for local and GVT. However, the focus remained on the individual experiences of the project leaders, rather than the organisational one (see **Chapter 2.1**).

1.5   Research scope and limitations

The context of this study was to focus on a single case company that implemented a rigorous organisational framework to support its GVT. It led to the consequence that the project leaders perceived a similar organisational environment in which they utilised the same strategies and frameworks to manage their projects. Therefore, it diminished most of the external factors that would otherwise influence the project leader on an organisational level in their decisions and respectively, reduce the distortion of the research outcomes.

Nonetheless due to the limitation of a single case company the sample size was limited to seven interviews with authorities who have experienced leadership in an international spectrum. The selection process was biased by the available resources given from the case company and by the experience of the project leaders. It was relevant for the selection process that the participants had experienced local and global project teams to conceptualise their experience regarding cultural differences.

The foundation of this study started with the collection of data through literature research. The analysis was based on subjective interpretations and is therefore limited in their information richness. It is important to critically interpret the findings and resulting frameworks. The insights of this study were used for the formation of new knowledge areas that describe the research outcomes, but further intensive research is needed to approve the prepositions from different perspectives.

In social endeavours the national-, group-, and individual culture is an on-going cycle that is dependent on people who mutually influence each other. To assess the cultural behaviour between project leaders and project members, longitudinal researches were recommended to conduct. Nonetheless, this would be out of scope of the original dissertation and was narrowed down to the single perspective of project leaders and their resulting experience as it was explained in **Chapter 3**. This can lead to different findings of how cultures influence virtual leadership depending from which perspectives observations are conducted.

1.6   Structure of dissertation

This study aimed to investigate how culture influences the leadership role of GVT. Therefore, the focus remained on understanding how virtual leadership was adapted to the different social settings of GVT. A graphical representation of this study can be seen in **Figure 1.1**. At first the key concepts of virtual leadership were described to elaborate the basis of this thesis and the role of the virtual leader's interpersonal responsibilities. While communication technology was the medium of managing conflicts and improving coordination, cultural implications occur on all three levels of virtual leadership and thus were described in more detail. As the paradigm of **Figure 1.1** was used throughout the research, it was summarised as the 3C's ([C]ommunication technology, [C]onflict management, and [C]ollaboration) to describe the activities of virtual leadership.
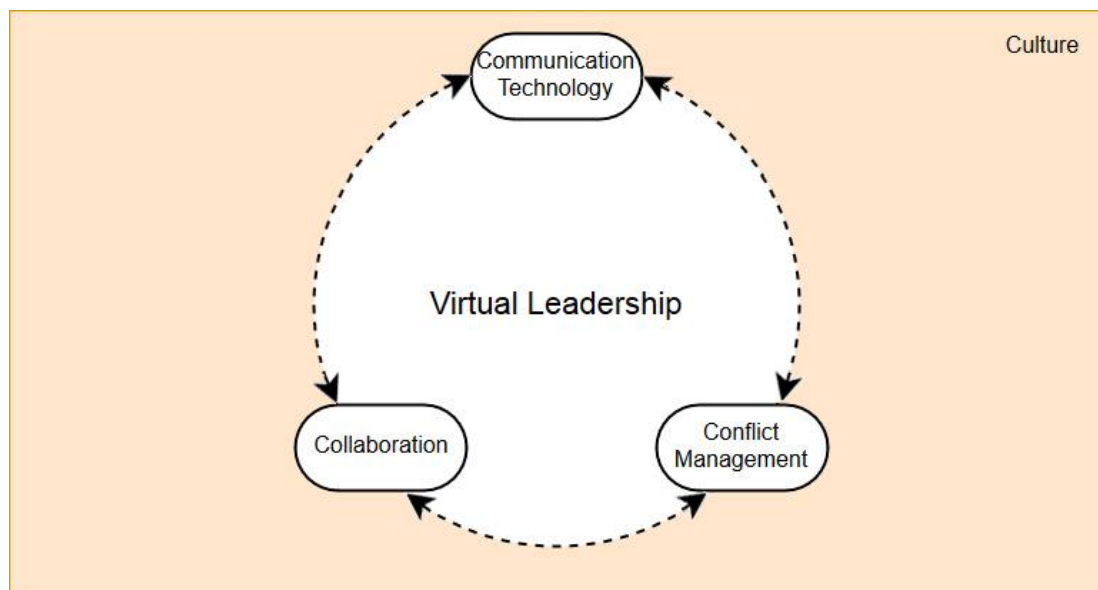
Figure 1.1   Focus of the dissertation, the 3C's

Chapter 2 of this research reviews selected literature regarding the terminology and characteristics of virtual leadership and GVT. **Chapter 3** comprehends the methodological explanation of this study and how data was obtained and analysed based on the findings and implications of the previous chapter. **Chapter 4** describes the key information of the case company that are relevant to understand the context in which the participants exercise leadership. Furthermore, **Chapter 5** lists the findings of the interviews, whereas **Chapter 6** is used for a discussion to juxtapose the insights of the theoretical framework with the empirical data of the interviews. **Chapter 7** concludes the research by answering the research question, sub-research questions, and specific recommendations for similar researches in the future.

2 Theoretical Framework

*This chapter is intended to review recent literature of virtual team leadership to deduce the characteristics of GVT in comparison to local ones. Leadership practices are analysed for their appropriate context to understand what approaches seem to be successful for virtual environment and to comprehend where cultural implications can occur. The second part of this chapter is used as the justification for the methodological arguments in **Chapter 3** and the general outline for **Chapter 5** and **Chapter 6**.*

2.1 Virtual leadership

The terminology of leadership results in different interpretations and definitions based on the perspective of the observer. Boldent et al. (2011) described in their book 'Exploring Leadership' three different levels of leadership, namely the individual-, the organisational-, and the societal level. It was relevant to explain those levels first, as they indicate various contexts of leadership that change the interpretation how leadership is seen and from what leadership emerges. As the intention of this dissertation was to interview a single case company, the organisational level was similar amongst the interviews and has less impact on the research outcomes, but was added to this section for completeness.

2.1.1 Leadership perspectives

2.1.1.1 Individual perspective of leadership

The individual level can be best described by the paradox that arises with the leadership trait theory (Zaccaro, 2007). The theory is based on the assumptions that individuals can be benchmarked regarding leadership characteristics. Individuals are compared with each other whether they share leadership attributes and thus, predicting their potential of becoming a successful leader. This idealistic view interprets leadership as a gift that is given with the birth of one, rather than it is a process of learning. Several psychometric tests try to measure such leadership skills, but it is argued that cultural, societal norms (e.g. Western versus. Eastern views), and also the sociological perspective limit the perception of these tests (Bolden et al., 2011, Hofstede and Minkov, 2010). Therefore, nowadays, an extended view of successful leadership is incorporating the actions of the respective leaders (Lee, 2013). The followers of the leader define what are good and bad actions based on the moral, ethical values, but also the degree of "authentic and emotional leadership" (Bolden et al., 2011, p.58).

2.1.1.2 Organisational perspective of leadership

On the other hand, the organisational level assess leadership in which quantifiable measures like profit, turnover, job satisfaction, and innovation are relevant for successful leadership. The characteristics of an individual leader are not as important as in the previous case, but it focuses on how the leader adds constructive feedback and appropriate support to the organisation (Bolden et al., 2011). Stakeholders and employees should be managed and resources allocated. The leaders, therefore, are attributed with sources of power which are given by the organisation. Boddy (2001, P.92) describes four different forms of such power sources. The first one is the

physical power which is about using one's own strength to threaten or harm someone. The economic power describes an authority based on having assets that are valuable to the organization. Knowledge power is about the possession of having high expertise for a certain task or process and the normative power describes the level of charisma that one has. Respectively, the leader is seen as a delegator of merging interests of the organisation with the skills of the GVT through utilising several organisational resources (Bolden et al., 2011).

2.1.1.3 Societal perspective of leadership

The societal level looks at communities rather than at individuals. Communities do not follow formal or structured processes (i.e. authorize leaders, sources of power), but use some sort of "belonging, [...] characterized by informal relationships" (Bolden et al., 2011, p.102). It adds another level to the organisation, as cultural interests and mutual trust are affecting the outcome of its operations. The individuals of the organisation must be committed as a team to strive for the same goal to achieve a sustainable competitive advantage. Leadership is a more "pervasive activity, [...] to promote culture anytime and anywhere" (Bolden et al., 2011, p.119). The leader is not directly adding value to the organisation, but is creating space and encouraging individuals to strive for something higher than one would achieve individually. Everyone is being equal and share responsibility for activities, where the leader is forming a community out of words.

2.1.1.4 Application of leadership perspectives

The different interpretations of leadership were relevant for this study, because culture has various impacts depending from what leadership perspective the observation is conducted. The individual perspective argues that leadership is a more self-centred activity in motivating others through increasing one's own competences that is related to the national culture of the project leader (Bolden et al., 2011). Those people tend to be more task-focused by increasing their own education to control and manage the team better. On the other hand, the societal perspective interprets leadership as a social process, which is related to the context, where leaders tend to adopt a more people-orientated approach in managing the task (Bolden et al., 2011). The focus of the dissertation is primarily on the individual level of leadership and how the culture of the virtual project leader is affecting decision makings regarding the 3C's. Nevertheless, it is important to mention that the various dimensions of leadership are interconnected through culture (see **Chapter 2.2.1**). Especially the societal leadership is strongly related to the individual one, due to the context of this study to focus on GVT that must cope with increased complexities in cross-cultural communication and interpersonal differences. For example trust, as it was described in more detail in **Chapter 2.2.3**, was recognised to be a major factor in GVT and was managed by the individual leader through social practices (Lee, 2013, Kliem, 2004). This includes merging concepts of the individual- and societal leadership perspectives to generate an environment that stimulates mutual grounding.

2.1.2 Virtual leadership styles

The study of Judge and Piccolo (2004) found out that different leadership styles were appropriate for different contexts. In virtual projects the transformational and transactional leadership were recognised as promising practices to manage virtual team objectives (Purvanova and Bono, 2009, Avolio et al., 2001). Furthermore, the

situational leadership is merging practices of the transactional and transformational style to mixture control and flexibility based on the context of the project (McCleskey, 2014).

2.1.2.1 Transactional leadership

In relation to the individual perspective of leadership, where leadership originates from the expectation of the project leader, the transactional leadership style has seen most application in GVT (Ruggieri, 2009, Bass and Avolio, 1993). It is in correlation to uncertainty avoidance cultures and individualism (Hofstede and Minkov, 2010); that were further described in **Chapter 2.2.1**. The transactional leader is task-focused and sets clear objectives and roles (Gilson et al., 2015, Lee, 2013, Hambley et al., 2007). Huang et al. (2010) diagnosed that the transactional leadership style improves task cohesion through monitoring and controlling activities that overcome communication constraints. In another study by Müller and Turner (2007) the authors looked at different leadership styles and projects and figured out a correlation between the complexity of projects and the competencies associated with certain leadership styles. In their study, it was mentioned that the transactional leadership is appropriate for known virtual environments in which control can be exercised for a longer duration.

2.1.2.2 Transformational leadership

The transformational leadership style contrasts with the transactional one to encourage a social sphere in which mutual grounding and trust-building takes place. It is advocating uncertainty accepting cultures and collectivism through a more consultative leadership style and is associated with the project leader as inspirational and motivational source for team members (Gilson et al., 2015, Lee, 2013, Avolio et al., 2001). Collectivists request the establishment of relationships and team processes within the group and positively associate mentoring and guidance from the supervisor (Mockaitis et al., 2012). Correspondingly, transformational leadership is creating a cooperative culture that establishes relationships which has a more positive effect on trust building. More complex projects that rely on sensitivity, self-awareness, and communication are more suitable with transformational leadership than transactional leadership (Turner and Müller, 2007). The argumentation is supported by the study of Muenjohn and Armstrong (2015) who pinpointed that "transformational leaders may adjust their leadership styles to be more associated with directive rather than participative in a society with a high power distance and where the directive approach is preferred by subordinates" (p.277). Determining the strengths and the requirements of the individual to adapt processes respectively is the main objective in transformational leadership.

2.1.2.3 Situational leadership

The situational leadership is a mixture of the strengths of transformational and transactional leadership to delegate between the types that are most appropriate for the specific context (Tannenbaum and Schmidt, 1973). The various phases of the project life cycle requires different focuses of leadership, as the need for agility or control shift respectively (Maylor, 2010). In addition, individuals have different perceptions and needs of leadership as it was described in **Chapter 2.2.1**. The situational leadership style advocates that "[b]y adjusting the leadership style to fit the developmental needs of the employee, the leader can recognise more influence and effectiveness in changing behaviour(s) of the employee" (Lee, 2010, p.24).

Respectively, even though much research has been conducted which leadership style suits best no consensus can be made, but research mentions that it relies on the leaders' decisions, using their cognitive and emotional reasoning. Hence in the following culture as well as the individual activities of leadership were discussed in more detail and how they could mutually influence each other.

2.2 Global virtual teams

To elaborate the concept of GVT, the terminology of virtuality was narrowed down first. Virtuality is seen as part of geographical distribution, which is understood by the diversity of people who work on a common goal with limited shared physical location (O'Leary and Cummings, 2007), to communicate and share knowledge in an international context facilitated by electronic media (Mesmer-Magnus et al., 2011), and is influenced by cultural diversity (Hinds et al., 2011). In the study of Gilson et al. (2015) the authors analysed approximately 450 articles from 200 different journals over the last decade. In their study, they have found out that GVT are multidimensional, but that geographic dispersion, technology usage, and cultural differences are one of the most common analysed fields in the literature. This is due to the nature of virtuality in GVT and was a reoccurring theme for the next sub-sections.

2.2.1 Culture

One of the most recognised scholars in the field of analysing the influence of culture in businesses is Hofstede (1991), who defined culture as "the collective programming of the mind which distinguishes the members of one group or category of people from those of another" (p.5). He developed a systematic framework for understanding the differences in organisational and national culture. His model is widely used among business practitioners and caused many debates of how culture should be interpreted. Consequently, the literature diverged primarily into two research fields that either assumes to compare cultural differences with numbers and categories (Hofstede and Minkov, 2010, Lewis, 2010, Gesteland, 2005), while the other group sees culture as a dynamic system that mutually influence each other (Cramton and Hinds, 2014, Markus and Kitayama, 2010). In the following the two different systems were further discussed.

2.2.1.1 Systematic Framework of Culture

The static view predominantly assumes that cultural values can be measured and learned by individuals. It is stated that children are raised and educated by national and regional concepts, which become the core beliefs that can later on be developed, but never be fully discarded (Lewis, 2010). Culture, therefore, is a process that can be learned and derives from the social environment of an individual. A graphical representation can be seen in **Figure 2.1**, where Lewis (2010) explains how the collective programming is "grafted onto inherited traits" (p.18). The first level, starting from bottom, is universal for all human beings, which comprehends basic characteristics like the need for survival, procreation, and community. The second stage is where culture takes place and is specific for each group and category; those were discussed in the next section. The last stage grasps individual traits that are learned and developed through experience, profession, and education. Since the latter category is unique for everyone, it cannot be generalised to a larger group and thus the focus remained on the collective part that describes the national and regional culture.
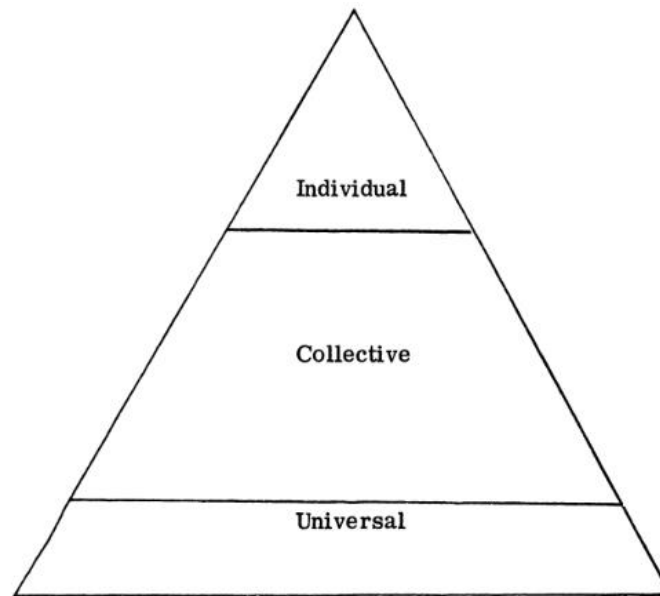
Figure 2.1   Human mental programming. Figure retrieved from Hofstede (1980, p.17).

Hofstede (2011) has created the 'Six Dimension' model for categorising the national culture, which was initially based on the dimensions of Uncertainty Avoidance, Power Distance, Individualism vs. Collectivism, and Masculinity vs. Femininity, but later on has been updated by adding Long Term vs. Short Term Orientation and Indulgence vs. Restraint. The most important dimensions, according to Triandis (2004), are Individualism vs. Collectivism, Uncertainty Avoidance, and Power Distance, whereas the other dimensions are seen as "secondary [dimensions] having evolved from the primary dimensions" (p.90). The focus remained on the primary dimensions and were further explained in the following, while the key differences were listed in **Appendix A.1**.

Hofstede primary dimensions

Uncertainty avoidance deals with the "society's tolerance for ambiguity", whereas individuals feel either "uncomfortable or comfortable in unstructured situations" (Hofstede, 2011, p.10). It relates to the level of risk that individuals like to take and to which degree uncertainty is accepted. Uncertainty avoiding cultures implement rules and laws to protect them from unknown and believe in absolute truth, as it is advocated by the transactional leadership style (Lee, 2013). Cultures that have a high power distance perceive inequality as acceptable and expect that power is distributed unequally, which leads to a more hierarchical organisational structure that remains stable during future endeavours. On the other hand, low power distance cultures stress equality in which team members have similar authorities and minor emotional distance between leader and subordinate. Hofstede and Minkov (2010) state that power and inequality are always present in any society, but the degree and attitude towards those definitions vary between cultures. Individualism is in contrast to collectivism, where the former one defines the extent to which individuals are integrated into social groups and their interpersonal relationships towards other people (Hofstede and Minkov, 2010). It is the concept of whether everybody is responsible

for themselves, or that the group is responsible for its members and that the opinion of the group dominates the one of an individual.

2.2.1.2 Dynamic Framework of Culture

In comparison to the static model, there has been far less research conducted on the dynamic view. Even though, it was recognised by most literature that the static view is an idealised case scenario that applies on a national scale and can vary between individuals, it still leads to researchers recommending of 'learning approach' to understand culture. The study of Cramton and Hinds (2014) demonstrated that most literature in regards to culture still concentrate on a "static entity view of culture that focuses on the cultural values and ways of thinking that are learned and used by individuals" (p.1056). For example, language, which was further analysed in **Chapter 2.2.2.3**, is recognised as a social behaviour that is related to the environment of the individual which develops over time (Tannen, 1995), and differences in language perception illustrate to have negatively impact on the transfer of knowledge (Luo and Shenkar, 2006) and affects the performance of GVT (Chen et al., 2006). Language as part of the culture, therefore, is mutually influenced by the interactions of individuals. It is supported by the research of Markus and Kitayama (2010) who describe that "cultural variation across selves arises from differences in the images, ideas (including beliefs, values, and stereotypes), norms, tasks, practices, and social interactions that characterize various social environments and reflects differences in how to attune to these environments" (p.421) that can lead to the formation of subgroups as it is described in **Chapter 2.2.2.1**.

Conclusively the value of culture was primarily investigated from the systematic perspective to compare theory and findings, but was further conceptualised in a dynamic context that is established by the social sphere of projects (i.e. interaction of individuals with each other). So, the answer that was of interest regarding culture was to identify the cultural attributes of the project leader, but also to understand how the GVT influences leadership, respectively.

2.2.2 Conflict management

Conflict management is the first activity of the 3C's that was described and analysed for cultural implications. Conflict in general is defined as an "interactive process manifested in incompatibility, disagreement, or difference within or between social entities" (Rahim, 2010, P.370). Whereas conflicts can be perceived negatively, recommendations were given to utilise conflicts as an organisational competitive advantage to establish a common ground between stakeholders and the project team (Maylor, 2010). In general, the literature accommodates three kinds of conflicts that can occur within a project team; namely task-, process-, and emotional conflicts (Hinds and Bailey, 2003, Jehn and Mannix, 2001). The former one is related to the administrative and organisational context, which categorises different perceptions and understandings of the project task and the delegation of responsibilities. Differences in opinions can also occur at the actual approach to the task- or group process and is defined as process conflict. Emotional conflict, or relationship conflicts, comprehends affective characteristics such as mutual dislike and anger between project members. Since conflict management is one of the major responsibilities of a project leader, further investigations must be made to understand the drivers of conflicts to conceptualise how culture can bias the decisions of leaders. Furthermore the focus

was on the emotional conflict, as it is stressed out by the study of Stark and Bierly (2009) that emotional conflict is related to virtuality, in which the level of team satisfaction deteriorates with the increase of geographical distance of members and the reliance of ICT.

Several theories comprehend how conflict is rooted in its social system and how conflict can be used as an organisational resource. In that regards, selected theories were described to identify the environment of the virtual leader. The attribution theory portrays the cognitive reasoning of individuals to make sense of their environment and giving "attributions regarding the cause of the problem" (Kankanhalli et al., 2006, p.6). The theory denotes different natures of attributions, as personal attribution is linked to individuals who blame their reasoning on other's behaviour, situational attribution to the context, and societal attribution to the characteristics of a community or society (Kankanhalli et al., 2006). Like the attribution theory, sensemaking is an active process where information and meanings are interpreted into associations that are highly dependent on the expectations of the individual (Thomas, Clark, & Gioia, 1993). Sensemaking is according to Ford et al. (2008) further described as a self-fulfilling label and therefore, consists of thoughts and information given from the person himself. As it can be seen in both cases, the conflict is based on the individual's perception and cognitive reasoning of a situation. Correspondingly, virtual projects experience the paradox of multi-cultural teams that are used to acquire or strengthen a competitive advantage, but add complexity to the social context of the GVT and dwindle team effectiveness (Lee, 2013).

2.2.2.1 Social categorisation

Studies have confirmed that especially in GVT the level of conflicts is increased compared to local ones (Furumo, 2009). This is due to the cause of virtuality that individuals receive less identifying attributes in their opposition and instead have to make use of social comparisons (Tajfel and Turner, 1979). The construal level theory by Trope and Liberman (2010) accentuates that psychological distance and abstraction mutually influence each other and that globally distributed team members perceive each other more abstractly in comparison to local ones. Abstraction, in this case, means the use of increased "spontaneous trait inferences" (Rim et al., 2009, p.1), in which assumptions are made based on schematic and stereotype of the respective culture. So, while an individual assessment of each other can be created through face to face, people who are connected via ICT tend to be judged by the means of superficial information. That leads to a movement in which non-visual characteristics receive increased importance for identification of the social identity in GVT. In that regards, linguistic barriers are the predominant functions for social categorisation (Lauring, 2007). Correspondingly, social categorisation can lead to subgroup dynamics that are derived by the distinction of cognitive and emotional characteristics (Durnell Cramton and Hinds, 2004). The visual representation of **Figure 2.2** describes two different subgroup dynamics. The left-hand schema describes individuals that start with their own thoughts in contrast to the interdependent schema that looks first at the thoughts of individuals with whom one has close relationships with. Whereas individuals of the in-group (i.e. people that are close to oneself by for example sharing similar characteristics and expectations) are associated by strong emotional attachment, members of the out-group are perceived negatively (O'Leary and Mortensen, 2010). The different subgroups receive therefore a sense of shared social identity in which group characteristics are reasoned to be positive (Durnell Cramton

and Hinds, 2004). It is related to the attribution theory as the experiences of a subgroup is similar amongst the individuals, which is why personal and societal attribution must be made for those which are distant to one's own group.
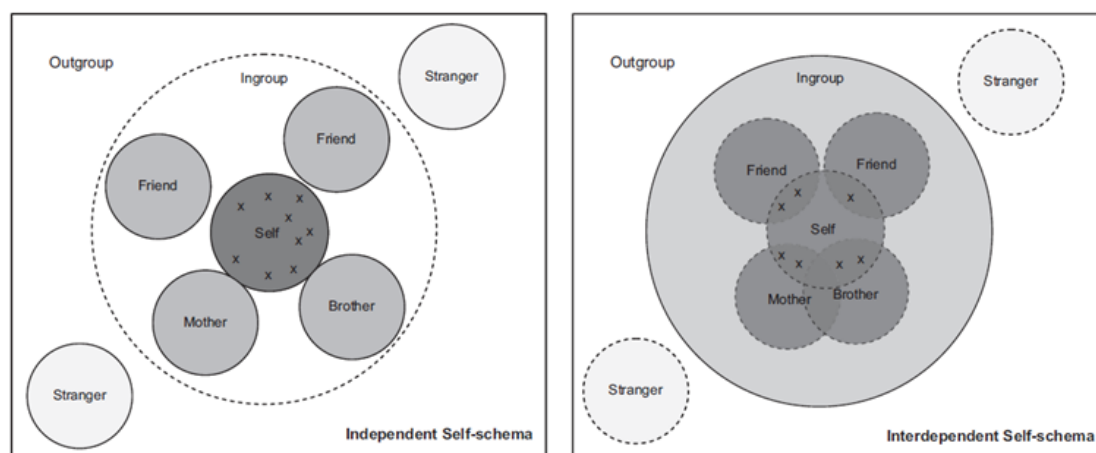

Figure 2.2   Independent and interdependent self-schemas. Retrieved from Markus and Kitayama (2010, p.424).

2.2.2.2   Team diversity conflict

Team diversity can be generally categorised in functional diversity and social category, which comprehends differences in educational background, experience, and expertise on the one side and differences in culture, gender, age, and race on the other side (Kankanhalli et al., 2006). Whereas it is argued that diversity can enrich discussions, it can also lead to miscommunication. Changes in experience for example change the way how words and arguments are perceived, as it was further described in the next section. Particularly the conflict between cultural variations, as described in **Chapter 2.2.1**, has effect on how well culturally diverse teams can collaborate (Triandis, 1995). While individualists prefer freedom in doing the activities according to their personal time schedule, collectivists favour group activities to establish relationships and a team identity (Hofstede and Minkov, 2010). In that case it would be difficult to manage teams that must work together but are opposing the approach of the other side. However, it is also related to the context of the project, as for example in uncertainty avoiding cultures who act towards a known environment through the establishment of fixed and structured procedures are counterproductive for innovation that require fast decisions and changes in structure. In virtual settings, project leaders must acknowledge everyone, but possess cultural attributes that might be counterproductive for international collaboration. Therefore, an interest was to identify how virtual project leaders are influenced by their own culture in managing GVT diversity.

2.2.2.3   Language conflict

Language is one of the most important parts of a culture. A language does not simply consist of vocabulary, grammar, and structural rules, but it is a complex system of communication (Tannen, 1995). It is what Lewis (2010) describes as the difference between concepts and notions. In terms of the learning theory a language cannot be interpreted as an object, which is easily possessed and transferred, but rather as a process or practice. Individuals have to share a common ground in which sentences

and words perceive the intended meaning (Clark and Brennan, 1991). A common ground can be attained through an exchange of mutual knowledge that attributes to the social context of the conversation and facilitates the act of understanding. The conflict of language in GVT is that it is strongly related to cultural diversity and that communication is mainly obtained through ICT. In general, communication can either take place by verbal means (i.e. vocal or written) in which words represent the actual content of the conversation, but also by nonverbal means that are used as "demonstrative references" (Clark et al., 1983, p.1) to add perspective to the conversation. ICT reduces especially the cues in the latter one that leads room for misinterpretations. Furthermore, Lee (2013) argues that language effectiveness is related to cultural awareness. Language identifies the cultural orientation whether one is individualistic or collectivist orientated, or has a high- or low context. Correspondingly the way how opinions are expressed, disapproval is given, or rejections received are for example different among people of North America and Asia (Lee, 2013). As this is depending on the individual, it was questionable whether the GVT is influenced by the linguistic skills of the virtual leader and was subject for further investigations.

2.2.3 Collaboration

Whereas conflicts can be resolved and managed, they can also be used to steer the project team to effective collaboration through motivation. The process of collaboration is to develop meaningful relationship strategies to form a common goal (Kerzner, 2013, Maylor, 2010). In order to establish a social presence, team building activities should be used "to build trust, encourage communication, and stimulate understanding of multiple cultures within the team" (Lee, 2013, p.158). Therefore, in the following the concept of trust received further attention, while in addition to the conflict of team diversity that were mentioned previously, cultural diversity was investigated regarding motivational components.

2.2.3.1 Trust

GVT must deal with societal issues that are related to the loss of trust building mechanism. In order to manage team members effectively, however, trust is required to manage beyond the point of controlling others (Jarvenpaa and Leidner, 1998). Trust, according to Mayer et al. (1995), is understood as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p.712). This view incorporates that trust is a development process of history-dependent relationships. The conflict arises when comparing the construal level theory with the common ground and trust. As GVT members must interact with each other, the risk of stereotyping their opposition is high. It is supported by the fact that virtual communication leads to a reduced common ground that affects how information is received and interpreted. Trust however can overcome the psychological distance and support mutual grounding by sharing a social context (Savolainen, 2008). Crisp and Jarvenpaa (2013), recommend to focus on swift trust in GVT that emphasise high initial trust through utilizing trust from other contexts such as the professional career to increase the level of confidence to encourage normative actions. The normative reference which is established by the project leader will be used by the individuals as a future reference upon which knowledge-based trust is formed (Lionel Robert et al., 2009). So, it is essential to

create high swift trust at the beginning of the project through increasing the awareness of each individual competence, by utilising workshops, face to face meetings, and team-building activities that are used to establish a common context. Nevertheless, cultural awareness is still required to be established as differences in cultural perception change how trust can be managed (Lee, 2013). As individuals interpret the importance of trust differently, collectivist for example strive for social group activities, whereas individualist prefer to do activities on their own (Hofstede and Minkov, 2010). **Table 2.1** shows the apparent cultural differences between the United States, India, France, and Germany, where the definition of trust depends on the perspective of the nation. Since GVT are characterised through having a high cultural diversity, the element of trust has major impact on how the virtual leader can maintain team effectiveness. Moreover, the virtual leader possesses cultural attributes that are different among the GVT members, and thus personal influences can bias the management of team activities.

Table 2.1   *Country Comparison to Building Trust. Table retrieved from Lee (2013, p.165).*

Country	Perspectives on How to Build Trust
United States	Make deadlines, deliver on commitments, communicate candidly and clearly, act quickly and decisively, treat everyone as equals
India	Listen to explanations, encourage collaborative input, don't accept ambiguous responses as "yes" or "no" without discussion, focus on building relationships—not timelines
France	Provide the big picture and avoid details, allow time for debate, provide guidelines and processes, encourage clarity and logic, recognize chain of authority
Germany	Be punctual and efficient, allow time for conversation and explanation, provide analytical information for decision-making discussions, present items in logical order

2.2.3.2 Motivation

Team cohesiveness is related to team performance and effectiveness, which is promoted by the level of trust among team members (Lin et al., 2010). Trust is in this context a motivation for social endeavours to build meaningful relationships, whereas motivation in general corresponds to the achievement of a task. Sheridan (2012) refers to many motivators that are common for employees, such as recognition, open communication and shared values. Further studies identify three types of motivators, namely affiliation, achievement, and power (Lee, 2013, Peterson, 2007). The former category belongs to people who are motivated by positive social relationships and environments that stimulate the collective team effort (Peterson, 2007). Team members of this category are more likely to assist and support each other in their responsibilities and value the group process. Achievement oriented individuals are concerned with task success through identifying and processing clear objectives (Peterson, 2007). The role is further identified by people who like to take personal and organisational challenges to enhance their self-esteem. The last category dominates with characteristics to exercise control and power over task activities and suits the

responsibilities of leaders (Peterson, 2007). The three motivation types can be also linked by cultural dimensions, as it can be seen in **Table 2.2**, which is an extract of Lee's (2013, p.162) table that is added to **Appendix A.3**. In the extract, individualistic cultures are listed as achievement orientated people who seek for challenges in autonomous activities, for whom they receive the respective recognition and reward. On the other hand, collectivists are motivated through team building opportunities to manage tasks as a unity. The conflict is, as in the previous chapter indicated, that clashes of different cultures require different levels of attentions that must be managed by the project leader. How the virtual leader manages it and whether interpersonal attributes are involved, was further investigated throughout the research.

Table 2.2   *Extract of Cultural Dimensions related to Motivation. Table retrieved from Lee (2013, p.162).*

Cultural Dimension	Primary Dimension Traits	McCelland's Motivational Orientation	Example Motivators
Individualistic	Self-reliant, self-sufficient	Achievement	Provide challenging tasks and autonomous work. Set goals and clear objectives and give feedback and recognition for work done well.
Collectivistic	Group orientation—family, community, company	Affiliation	Encourage team-building and relationship-building opportunities. Encourage leadership of team activities.

2.2.4 Communication technology

To analyse the concept of communication media, the various tools of information exchanges should be understood. The social presence theory is developed by Short et al. (1976) and describes that ICT varies in their social presence. Face to face conversations are seen to be the most efficient, as verbal and nonverbal information is transferred to the other person. On the other hand, text-based communication tools are the least efficient ones, because the communication focuses on written information that lacks nonverbal cues. While face to face enriches conversation, low social presence media reduces information to a minimum. Depending on the need of interpersonal involvement, the level of social presence has to be determined (Rhoads, 2010, Daim et al., 2012). In this case, important meetings should be managed with ICT that have a high level of social presence to emphasise an effective communication flow, whereas superficial involvements request only a media with low level. An overview of those recommendations can be seen in **Figure 2.3.**

E-Mail has for example the least social presence, but as an asynchronous type of media it can target a large audience. It is the easiest and fastest way of all communication media to share knowledge as it directly includes a written proof of what has been decided and can be uploaded to databases and networks. Nonetheless,

E-Mails lack in building up a common ground that increases the risk of misunderstanding, as language and interpretation various between cultures. On the other hand, face to face has the highest social presence. It is the most efficient way to build up trust and since people can directly interact with each other, mutual grounding takes place (Daim et al., 2012, Clemons and Kroth, 2010). Face to face, however, is also the most expensive option as people must physically meet each other that exhaust organizational resources.

Communication medium	Suggested uses in virtual teams	Don't do this
Email	Group updates, work statuses, general management updates, delivery of documents and in some cases sign-off on deliverables. Key: Keep emails clear and concise – "write for your audience, not for yourself"	Send an 'emotive' message. Any difficult discussion should be dealt with in person or if not possible, by phone.
Instant Messages	Quick and immediate clarifications, team discussions	Use for collecting sign-offs or requirements gathering, or any other formal requirement. Send an 'emotive' message. Do by phone or in person. Use during another meeting. Remember: IM's can be stored and retrieved by law in most countries, the same as emails.
Telephone	General project discussions, conference calls to review progress etc Personal performance reviews for the project (if there is no way they can be held face-to-face), conflict resolution, project on-boarding and off-boarding,	Leave a message without giving detail information as to why you called, when, who you are, etc.
Conference Calls	Regular project team meetings	Continue with a sensitive discussion post a conference call, as others could still be on it.
Video Conference	Group and team meetings, more formal work reviews, training as close to face-to-face as you can get (some modern video conferencing is very advanced, but expensive)	Don't use for unimportant events, it is costly.
Face-to-Face	General meetings and daily work interactions, celebrate successes, training, project conclusion, major milestones	Don't forget those that cannot travel to meet face-to-face, consider the best options for them.

Figure 2.3   Communication medium and their social presence guideline. Table retrieved from (http://demo.idg.com.au, 2016).

Nonetheless this universalistic interpretation of communication media is limited in its cultural perception. The work by Shachaf and Hara (2007) found out that individuals change their type of media depending on the context of language. While the usage of synchronous communication is preferred in native tongue, asynchronous technology tends to leverage language differences.

2.3 Summary of theoretical framework

The theoretical framework explained the richness of studies that were conducted by many researchers and scholars, but that there is room for interpretation in leadership theory in its cultural context. A summary of the theoretical framework can be seen in **Table 2.3**. The leadership theory denotes the importance of different interpretations of leadership that gives detail from what perspective leadership originates and how it develops. In the further study, the individual perspective was used as the basis for argumentation, as the research question looks from the perspective of the virtual project leaders how cultural traits influence leadership decisions. Virtual leadership, however, is interpreted as a development process of social interactions in cross-cultural environments. Interactions between social entities are influenced by the individuals who are characterised as having diverse national cultures in GVT that add complexity to the practice of leadership. The project leader therefore influences project members throughout the project life cycle, but is also influenced by the actions and reasoning of the project members. To narrow down the activities of virtual leadership, literature regarding the 3C's were investigated. The focus remained on the interpersonal capabilities of the project leader how team effectiveness can be sustained through establishing mutual grounding between GVT members in an environment that requires communication through ICT. The insights of the theoretical framework were used to conceptualise the findings of **Chapter 5** in **Chapter 6**.

Table 2.3   Summary of theoretical framework

Knowledge Area	Challenges	Focus
Virtual Leadership	Different interpretations of leadership change the way how leadership is understood	The focus remains on the individual leadership perspective to comprehend how tools and concepts are utilised by the project leader, rather than how organisational forces influence project decisions.
	Leadership styles rely on the project leaders' decisions	It is important to understand the context of the project leader by knowing what methods are used for what purposes and how they are reasoned by the perspective of the individual.
Culture	Culture is intangible	Groups of individuals share similar behaviours since regional and national concepts establish a similar education and development process

	Culture is dynamic	The static framework will be used as the primary indicator to conceptualise insights, whereas the dynamic perspective is required to understand how individuals in project environments influence each other
Conflict Management	Conflicts have different value in virtual endeavours	The main attention will be on emotional conflicts as the increase of virtuality deteriorates the level of team satisfaction.
	Team diversity enriches the project development, but cultural diversity can hinder the team effectiveness and lead to subgroup formation	It is relevant to identify to which degree culture has an impact on project decisions and how the project leader manages cultural diversity; and whether the project leader is influenced by his/her own culture
	Linguistic differences establish communication barriers	The leader requires some form of omnipresent linguistic understanding to delegate activities between project managers with various cultural backgrounds.
Collaboration	Relationship building is negatively affected by the increase of virtuality	The definition of trust and trust-building activities depends by the individual and is valued differently among cultures. The project leaders can therefore utilise different concepts of trusts to sustain homogeneity.
	Motivation drivers vary between people	Similar focus with previous statement of trust and trust-building activities.
Communication Technologies	ICT varies in their social presence	ICT must be utilised in different ways depending on the context. Since there is room for interpretation it is of interest to understand the reasoning of choice by the project leader to manage GVT.

3 Methodology

*The method section is used to clarify how and which data was obtained to answer the research question which was stated in **Chapter 1**, by using the theoretical insights received from the literature research of **Chapter 2**. It starts with the definition of the chosen research philosophy and orientation that are commonly known in social researches and continues with the interview design and data collection.*

3.1 Research approach & strategy

This study followed the ontological consideration that reality is a creation shaped by individuals, groups, and their respective culture, rather than that there is a singular reality, which is commonly known as the position of constructionism (Bryman, 2015). The traditional project management body assumes a process-driven approach in which the organisation has control over its activities, but it has been shown that this view is obsolete (Cicmil et al., 2006). Organisations have influence on the individuals, but individuals also have influence on the project. It is an interdependent process, since every project is seen to be a "social construct" (Maylor, 2010, p.6) as it is organised and directed by individuals and networks of individuals. The importance of implementing knowledge management already has been widely accepted as a practice besides the traditional project management (Bartsch et al., 2013, Han and Hovav, 2013). Respectively, the epistemological position of interpretivism shapes the general outline of this research. It is believed that every project is unique as every project must cope with different constraints and resources. Consequently, the reality of projects should be interpreted through understanding the variables that constitute the environment of a project, while generalisation can only be done to a limited degree. The research therefore focused on an explorative analysis, which will utilise qualitative studies to emphasise the individual's perspective. It followed an inductive approach to use observations and findings to generate theories that are applicable for the specific context (Bryman, 2015).

3.1.1 Research design

The research strategy gives a general orientation of the research, while the research design adds further distinction to the methods that has been used for receiving empirical data and how they have been analysed. As stated in earlier chapters, a single case was used to acquire data to answer the research question. A single case study for qualitative studies is according to Stake (2005) the concentration of the nature of the single case. Furthermore the position of interpretivism focuses on enriching human discourse, which is in contrast to systematic reviewing to accumulate knowledge (Bryman, 2015). This position led to a narrative review approach that has been used for this study. An explorative study is guided by uncertainty in which it is requested to address a wider scope of available data. Correspondingly, for case studies, the question remains on what can be learned from the situation in its distinctive context, rather than to generalise findings to the wider community. Bryman (2015) mentions that case studies are understood as an "idiographic approach […] to elucidate unique features of the case" (p.69). It is an intensive examination which results are limited to the case, but findings of this dissertation can be used to inspire future researches to investigate how cultures influence individuals in other contexts to draw further conclusions. Since case studies are attributed to unique contexts, the design criteria of validity, reliability, and replication seem to be of less importance to the research

design (Stake, 2005). Internal validity was low for this research because causal directions could not be established from the data. External validity was not available since the case was limited to its specific context and could not be generalised beyond the boundaries given by the case. Random sampling therefore seemed to be obsolete as it was not the purpose to have a representative sample to generalise the results, but to demonstrate in-depth analysis to elucidate relations between variables. Nonetheless analytic generalisation have been used to strengthen the internal validity by applying findings to other concrete examples through juxtaposing the literature with the empirical data (Yin, 2013). Reliability on the other hand is influenced by the degree that a research can be replicated and repeated by other researchers (Bryman, 2015). This is subject to the methodological section to describe the steps that have been done to acquire and analyse the data to illuminate the research question.

3.2   Data collection methods

3.2.1   Secondary data

To establish a basis for the interview guideline and to increase the comprehensibility of the findings, first research was conducted to identify what knowledge is already available to the public of the case company. It is an essential first step to indicate knowledge that can be juxtaposed with the insights of the interviews later on, which is guided by the research question scope and purpose (Bryman, 2015). Thus, online resources that were published by or are about the case company were used as additional information to strengthen the argumentation of the findings.

3.2.2   Primary data

The study collected its primary and empirical data from interviews with selected project leaders from a single company who have experienced collaborations with local and international teams that required communicating via ICT. Virtual experience is needed to elaborate and elucidate practical insights with the mechanism that were utilised to sustain project success. As culture was also interpreted from a dynamic perspective, it could only be assessed with leaders who have been in their respective position for a longer duration to have experienced rich social conversations to feel comfortable with their organisational responsibilities as a leader.

3.3   Interview design

The design for the primary data collection was to follow the steps of a semi-structured interview that utilises advantages of a structured and unstructured approach (Kajornboon, 2005). Whereas structured interviews are easy to evaluate and compare causal relations between variables, unstructured ones are rich in their findings but time consuming. As in a narrative review of literature, a similar approach is required for the empirical investigation to use a more explorative method in receiving interview's opinion. The general initiative in narrative reviews is to focus on the interview's point of view, which is guided by the initial research question and primary analyse of literature (Bryman, 2015). Therefore, a semi-structured interview allows the researcher to encourage the interviewer through asking new- or follow-up questions, or even the order of how questions should be asked in contrast to structured interviews. This allows acquiring rich detailed answers that can be used for new insights into the research scope.

3.3.1 Sampling

A single case study requested to interview participants that were established around the same context, which was defined by the case. The target was to conduct interviews as long as new data saturated the concept, which is commonly known as theoretical saturation in grounded theory (Bryman, 2015). It resulted in two different interviews, whereas the first four interviews were used to receive an overview of the leadership activities, while the second round was used to fill out the gaps that require more input. The research question defined the target audience that should be sampled from. As it is required to have project leaders who have experienced GVT, purposive sampling offered the opportunity to receive the participants that meet the limitations for the research. Probability sampling on the other hand would not be adding anything to the study due to the limitation of generalisation. A total of seven interviewees were provided by the case company which were mixed in age, experience, and profession. Whereas the interviewees were at the time of the interview positioned as directors, project managers, coaches, and researchers their experience ranged from zero to more than 20 years of managing international projects. Their culture was predominantly from Sweden, but with two exceptions namely interviewee 4 and 7 who originated from Netherlands and China respectively. However, all of them have been working in Sweden at the main location of the case company and have experienced the local procedures and methods. Furthermore, the interviewees were all males and therefore may have biased the results of this study as the female perspective in terms of virtual leadership may differ from the ones of males. However, since the cultural dimensions of Hofstede regarding masculinity versus femininity were neglected for this research (see **Chapter 2.2.1**), cultural differences correlated to gender were not relevant.

3.3.2 Interviewing

A semi-structured interview approach guided the process of gathering empirical data by conducting a total of seven interviews with project leaders from the case company. In order to conduct an interview that followed the guidelines of a social research the recommendation given by Bryman (2015) were considered. At first the interview started with a "facesheet" (p.473) to ask general information of the participants to contextualise the answers. Since relations between variables can be linked to various factors such as culture and experience, they must be understood and taken into context. Furthermore, it was recommended to follow a logical sequence to ask the questions that led to more difficult questions that were asked at the end of the interview. In this regard, the main questions were used for answering the research question, while follow-ups were used for receiving a better perspective and more specific insights. In that case the author strongly recommended avoiding ambiguous phrases and words in questions, long questions, double barrelled questions, very general questions, leading questions, and questions that included negatives. Besides the interview guideline, Bryman (2015) stated that the interviewer should encourage an environment that stimulates a relaxing atmosphere, while being a good listener, flexible, and non-judgemental. It was also important for the interviewer to use previous stated information of the interviewees for in-depth or probing questions.

As the interviewees were located at different places during the interview due to their project responsibility, the interviews were conducted via Skype for all participants.

The advantages of Skype in comparison to telephone interviews is that Skype supports a richer social presence, whereas telephone interviews are "unlikely to be sustainable beyond 20-25 minutes" (Bryman, 2015, p.215). The interviewer therefore received the opportunity to use non-verbal language as further indicator of how words are intended and perceived. It was also easier to record the interviews due to recording software and eased the transcription and encoding process. The interviews were around 45min on average long to embrace all aspects of the research themes. The interview guideline and research summary were also sent prior to the interview to avoid miscommunication and to increase the quality of the interviews. Interview themes were constructed from the theoretical framework to discuss leadership in conflict and collaboration situations for cultural diverse GVT, while it was also of interest to discuss the limitations of ICT perceived by the interviews. The focus remained on indicating performance or perception differences between local and offsite teams and trying to understand the cognitive reasoning for specific leadership approaches. Furthermore, the interviewer followed an ethical process of conducting the interview and informed the participants about their ethical rights, as it was described in **Chapter 3.5**. The interviews were then transcribed and send to the participants to edit and comment the document before receiving the final consent form to include the statements for the research.

3.4   Data analysis methods

The interviews have been transcribed immediately after the interview was concluded, to combine the written notes, audio, and video to comprehend the gathered information in one coherent piece of data. During the transcription process, emerging themes were documented that lead to new information. The information was used to receive a better perspective of the context in which the research question was answered and led to new questions that have been used for the subsequent interviews. Starting the transcription process at an early stage also helped the interviewer to enhance the examination of what has been stated to overcome natural limitations by writing down intuitive impressions (Bryman, 2015). Moreover, it has been recognised that the audio quality or the pronunciation of the interviewees led to misunderstandings, which have been leveraged through sending the transcript for feedback and comments to the respective interviewee. The coding of the transcripts entailed the systematically process of identifying concepts that could be grouped for categories (Bryman, 2015). Constant revisions and comparing data insights have been utilised to label data to find similarities that form the basis of generating a theory for answering the research question.

3.5   Ethics

Ethical principles are important especially in social sciences to ensure that individuals involved or affected by the study experience no harm. The Economic and Social Research Council has created a Framework for Research Ethics (FRE) that guides researchers to follow ethical standards. The FRE covers six areas of ethical considerations, namely:

(1) To maximise the benefit for the society and minimise the risk and harm for individuals;
(2) To respect the right of individuals;

(3) Participation should be voluntary and individuals must be appropriately informed;
(4) The research should be conducted with integrity and transparency;
(5) The roles and responsibilities must be clearly defined;
(6) The research should strive for independency and avoid conflicts.

Those ethical principles have been followed throughout the study to ensure that data was collected without interfering or harming the participants. At first it was discussed with the supervisor as well as colleagues and professors from the universities to find a topic that would be appropriate for the context of this research and whether ethical principles can be sustained. Insights made by other researchers that have been used for this study received the appropriate credibility for their work and are referenced according to the Harvard style. Furthermore, the participants of this study received the interview guideline, research summary, and informed consent form prior to the interviews to let them know what the research is about and how their contribution is used for the study. In this context, the informed consent entailed a short project description, the procedures and risks, benefits, cost compensation, and confidentiality for this study and the consent form that must be signed by all participants (see **Appendix C**). Since the consent form can be signed after the interview, the information of the informed consent document was also stated at the beginning of the interview to make sure the information has been understood by the participants.

4 Case Company

The intention of this chapter is to describe the case company in more detail to elaborate the context of the study. Especially the purpose of collaboration must be narrowed down to understand why GVT are required and how they must work together.

4.1 Case description

The case company's main responsibility remains on the production and distribution of products within the automotive market. It first has been established in the Swedish and Belgium market and had several trade partners across Europe and America throughout the last decades. The headquarters and main production facilities, however, remained in Sweden and thus the documentation and processes have adopted a Swedish approach in meeting business objectives. Nowadays the case company has established new production locations in China. It increases the impact on the global market, while it offers the case company to utilise local suppliers and experts from China to increase the production and development of automotive products. To keep the quality and brand recognition around the globe, the new production locations must meet the same standards as in Sweden. It leads to the consequence that the headquarters are developing their Swedish processes to be utilised as global approaches, whereas the Chinese production locations require some form of adaption to be compatible with the Swedish way. Swedish project directors and managers are therefore sent to China to set up the production and delegate activities.

The project leaders of this study either have a Swedish background or have adopted the Swedish approach in managing projects to take over the Swedish quality towards the Asian market. As the Swedish culture has a significant role in this research it was described in more detail in the following. The culture and characteristics of Swedish people according to the theory of Hofstede's research (2010) was juxtaposed with the insights of the interviews in **Chapter 6**.

4.2 National culture of Sweden

According to Hofstede (2010), Sweden has a low power distance which indicates their preference to be independent from the organisation in using hierarchy as a form for convenience. People are interpreted as being equals, while everyone has their designated role throughout the project. The project managers rely on the knowledge and expertise of each project member to adapt and develop activities through participative meetings. It is expected by the project managers to function as a mentor and consult the team members to meet the objectives, but not disrupting the actual process.

Furthermore in the research of Hofstede (2010) Sweden has a strong tendency towards individualism. It describes that the Swedish people tend to be more task-focused to fulfil their individual duties and being responsible for them. The interpretation remains on "I" rather than "We" during the group processes. The

individuals should take care of themselves and their families, whereas work is about keeping self-esteems and reputation through contract based agreements.

For the dimension of uncertainty avoidance the Swedish people have a low preference (Hofstede and Minkov, 2010). The general perspective of the Swedish employees is to focus on using no more rules than necessary that could otherwise harm the project process. It is about gaining experience through practice to find the best way that enhances the collaboration effectiveness. Correspondingly, time schedules are interpreted to be rather flexible and a healthy balance of work and private life are seen to be important.

Table 4.1   Sweden's Cultural Dimensions. Table retrieved from Hofstede (2010).
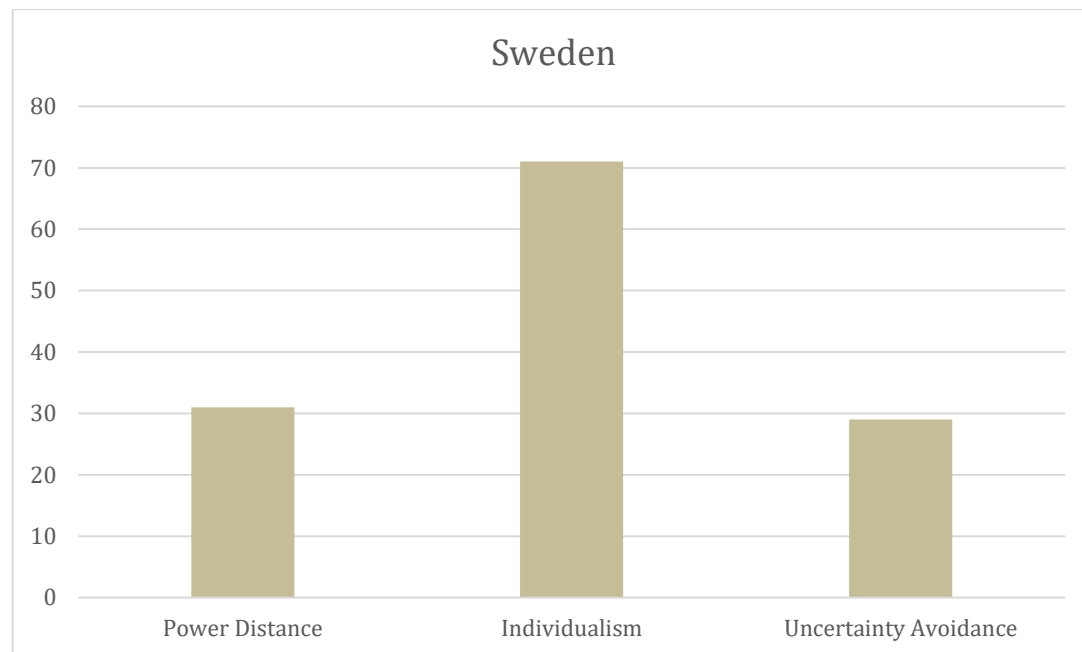
4.2.1   Characteristics of Swedish context

In relation to the theoretical framework some background information in relation to the Swedish language and trust can be stated. Sweden is generally considered to be proficient in the English language that can be argued by the following reasons. It can be stated that the Swedish language is based on the Germanic history from which also the English language originates, which is commonly used for international businesses. Therefore both languages share many similarities that makes the learning progress of studying other languages easier compared to languages that share less attributes and are more distant to one another (Ringbom, 2007). In addition to the national culture of Sweden of uncertainty avoidance, the behaviour of learning through practice can also be seen in the education system of Swedish people; thus, the system focuses on the integration of theory and practice that has influence on the proficiency of language skills. Moreover, the language skills are further improved due to the exposure of English media in the Swedish environment (Crystal, 2012), where people start early on to read and listen to the English language.

Another aspect is the position of trust for the Swedish people. In Sweden it is quite common to trust people that are foreign to someone, as personal relationships are not

as relevant in business situations as in the private life (Selmer and Worm, 1998). It is also in accordance to their level of individualism as stated before. The research of Gesteland (2002), who primarily focused on business situations, however, stated that some form of trust is still required in form of personal integrity. Trust for the Swedish people is about seeing people as being equal and let them take responsibility and be part of the process to show acknowledgment of their expertise and experience.

5 Findings

This chapter is used to present the findings of the interviews that were conducted with seven participants that have experienced leadership in local and GVT settings. The discourse of the observations and interviews are structured in the same way as the theoretical framework. Furthermore, the section of culture, and the 3C's are all interconnected and interview statements have been used multiple times to elaborate the insights from different perspectives.

5.1 Virtual leadership

The findings of the interviews confirmed that virtual leadership is addressing specifically the interpersonal capabilities of virtual leaders. Whereas the primary role of the virtual leader is to meet the task-related objectives given by the senior management, the secondary role is to utilise the competences of the team members in meeting functional- and social processes.

"The task is leading of course, but in the end, I would more focus on the people as the people have to do the task and activities"

<div align="right">Project Leader 4</div>

In contrast to the functional- and social processes, the task-related activities are the same across different locations due to the mirrored organisational structure that embraces homogeneity:

"My experience is that task processes [in China] do not differ from the Swedish way"

<div align="right">Project Leader 5</div>

"We try to make everything homogenous as possible; that way, it takes away the cultural part, as everybody is looking the same way"

<div align="right">Project Leader 7</div>

The conflict of managing the task and the people seems to have increased complexity in virtual endeavours. Local people can be managed easily according to the leader's experience, while offsite members request a form of development process. The interviewees talked multiple times of the need for agility, as differences between local and offsite members hinder collaboration and communication effectiveness. Due to the issue that the virtual leaders have no control over the human mind, team members not only vary from their national culture, but also from their personality. The interviewees therefore stated that rigorous activities as in the transactional leadership style would only be appropriate to a certain degree:

"You need to have a stable core in the team in order to deliver"

<div align="right">Project Leader 1</div>

The stable core must be established through a discourse between GVT and project leader to clarify the rules and responsibilities. It is a formal process where everybody will be educated how processes should be executed, how communication will be performed, and what the individual roles are. Those administrative tasks must be done at the start to build up a solid basis of the project and will later be shifted towards a

more people-orientated approach. This is because people perceive their roles and activities differently, so the leader must utilise their cultural intelligence to manage around the conflicts. One apparent theme was the need for flexibility:

"I see myself as flexible and tolerant and try to find ways out, instead of getting angry. I see a lot of different personalities, and I think if you are not flexible than conflicts become inevitable"

Project Leader 2

This implies that the transformational leadership approach has more significance in virtual endeavours to acknowledge the individual while giving support and mentoring. It has been pointed out by a few interviewees that this is more a natural way of how the people in Sweden approach problems. However, since the Swedish people should collaborate with other nationalities, transformational leadership cannot be utilised easily in different contexts as practices of the transformational style are not equally appreciated. The Chinese colleagues, according to the interviewees, request a need of formality and clear guidance, where the leadership method must be adapted. The interviewees mentioned therefore to develop practices over time that utilises concepts from the transformational and transactional approach:

"It feels more like the right approach due to my experience as being the winner's way (laughter). If someone gets upset of something, then we find a solution together so the person can express his or her feelings without keeping it inside, which will worsen the conflict over time"

Project Leader 2

It ultimately leads to the situational leadership, where the virtual project leader shows the context of how work is appreciated but adapts the processes where needed. As one project leaders describes it:

"I tend to adopt the way that feels natural to me and educate the people by the way how I do it. People start to adopt too, over time. I mean of course it is based on situational leadership in the sense that we are all individuals"

Project Leader 1

It concludes the general basis for all interviewees who agreed on the value of situational leadership in virtual endeavours. Even though the transformational style has many applications in the Swedish context, the situational style benefits the project by being flexible to follow the needs of the project members. Virtual leadership is about showing genuine interest in supporting other people, which enriches the project context, as people prefer leadership styles at different extremes and respectively to delegate activities in a sustainable manner.

5.2   Culture

Since culture influences how people observe and judge their environment, the cultural preferences of the interviewees were described in the following. All the interviewees, a part of Project Leader 4 and 7, originated from Sweden, whereas all interviews haven been in contact with the Swedish working style for some years. In general, it was stated that the level of power distance has been speculated by the interviewees to

be rather low in Sweden compared to the other cultures that they have been working with (i.e. Germany, US, Belgium, and China):

"If I go to purchase or manufacturing I can talk to the vice president of manufacturing and I can talk to the local guy at different plants in China for example. So, we are not that hierarchical, at least the Swedish people"

<div align="right">Project Leader 3</div>

"The Scandinavian culture is very independent; they promote individual contribution, individual freedom, and individual space to think; like in a hierarchy they believe that everyone is quite equal […]"

<div align="right">Project Leader 7</div>

Whereas some organisational structure is required in a large manufacturing and engineering company to administrate resources and strategies, the internal structure in the Swedish company is far more open and people are perceived as equals to stimulate a collaborative environment. The low power distance offers members to enrich the discussions of meetings and project activities, as everyone can contribute with their expertise. It also correlates to the low uncertainty avoidance of the project leaders. Since the low power structure enhances the organisational position of the individual to be able to contribute more to the project goal, the low uncertainty avoidance states that practice is more important than rules:

"I would say that the German colleagues are much more procedure guided, and we are much more guided by experimental way in doing things"

<div align="right">Project Leader 1</div>

"I should not try to be someone else or do something else. You always have to adapt to the environment and you can only do that by understanding the rules of a society by being part of it"

<div align="right">Project Leader 5</div>

Especially, the leadership process has been noted to be a longer process of cultural learning and understanding as every individual requires different approaches of how to avoid conflicts and motivate them. The risk of misunderstanding can be minimised through regular education to see what can be done beyond the rules to increase the level of team effectiveness. In this case, the interviewees mentioned to support a high level of individualism, due to the nature of their profession to delegate activities:

"I like to do things by myself and that is not a sustainable solution, if I run many items simultaneously. I think I know I should improve to let other people do their job and the next step after that is to improve my trust for them"

<div align="right">Project Leader 2</div>

The advantage of valuing individualism more than collectivism is to let project members take more responsibility and be more accountable for parts of the project. This strengthens on the one hand the belonging towards the project, whereas the individual will also be acknowledged and motivated for good work, while the project leader has fewer activities to manage.

5.3 Conflict management

As stated in the theoretical framework, conflict management is rooted in its drivers that are interpreted and conceptualised by the individual's culture to resolve it with the appropriate method. For this research, the findings of how the project leaders perceived conflicts is described, while also the applications of how to resolve them in GVT. The project leader's thoughts of how to resolve those conflicts will be related to social categorisation, team diversity, and language. Conflicts were perceived by the interviewees as inevitable, as the project takes place in a competitive environment in which processes should be concluded in less time and cost, while keeping the quality standards. This includes fixed task processes that were created by the case company, which is facilitated by the project department to create homogeneity among projects. The role of the project leader is to stick to the guideline by exercising regular design review meetings:

"Normally it is about time planning and what kind of technique they [the project members] want to use and what are the costs. They have to show their task and if it is not good then they have to go back"

Project Leader 3

In virtual projects, however the conflict evolves from emotional conflicts to task conflicts. Whereas local team members can resolve personal and work-related issues besides the actual project work, GVT members find no discourse in resolving the issues. This lead to stronger bonds between local groups and weaker relationships to GVT members (i.e. subgroup dynamics). As one project leader describes it:

"A lot of issues are simply based on miscommunication between people. I think if people could describe in a way that the other person understands than I think a lot of conflicts would never happen. I think miscommunication and misunderstanding is the main issue in international teams"

Project Leader 2

The misunderstanding can generally be traced back due to stereotyping and prejudices, as individual require information to share knowledge. If the information of their opposition is not acquired through natural conversations, assumptions will be utilised:

"[…] if you have never been to China you have a huge cultural assumption that can disrupt the collaboration effectiveness"

Project Leader 5

5.3.1 Social categorisation

During the interviews, observations were noted in the framing of words as personal pronouns of "we" and "us" were used for local teams, whereas specific follow-up questions had to be asked to receive the perspective towards GVT members. Especially the problematic of psychological distance has been noted by one project leader, where the movement towards a global producer affects the mind set of project team members. As the case company strives to expand their production facility across borders, the project strategies and planning activities must accommodate the global

movement. Respectively the project members should think and elaborate not only about their local duties, but to comprehend the bigger picture. This results that for example logistic activities take more time, as production facilities are scattered across the globe and take time until materials and products arrive at another location. As one project leaders describes it:

"They think about the plant in Gothenburg, but not the plant in China. And then people have a question mark and will let you know they will have to redo their tasks"

Project Leader 3

"We are moving towards being global. The problem is that when we are not global we neglect a lot of potential in using our [national] differences"

Project Leader 6

It creates some form of subgroup dynamics where ingroup members are seen to be superior by their colleagues and receive first attention in making decisions. The problem of local versus international teams is also embedded in the size of the GVT. While the facility in Sweden is the main production location of the case company, the plants in China are primarily used for establishing contacts to the Chinese labour market, or handling specific production requests. It results in the consequence that the local team has more team members and has more experience in their positions compared to groups that do not share the same physical location. Therefore, the local project team feels more responsible towards their own activities as those results in having a higher impact on immediate actions:

"So, there is a small team in China and a larger team here in Gothenburg that handles the common changes. Local changes in China are handled by themselves, but every decision needs to be made by us here in Gothenburg"

Project Leader 2

"The challenge was to direct the thinking of each other towards a more collaborative process. We had the larger group for the local team and the people in China were the minority"

Project Leader 4

5.3.2   Team diversity

The GVT of the project leaders were primarily categorised as Swedish, Chinese, Belgium, American, and German people. Even though the interviews focused on conflict scenarios between the Swedish and Chinese people, the issues between the Swedish and other cultures were also mentioned. One of the apparent consequences was that the Swedish style, which was described as a rather flat hierarchy, collides with the hierarchy in Germany and China. It results in a conflict where the Swedish are guided by practice to learn from mistakes and improve their processes, while the Germans and Chinese are stuck to the procedures and rules they have created. Another comparison is the way how achievements are interpreted and published between the Swedish and American colleagues.

"Here I am quite exaggerating, but I think we Swedes tend to talk about things as they are, or maybe even a bit degrading. I think the Americans in general they lift it up a

lot. It sounds for such an achievement much better when an American person talks about it [...] but it can create confusion of how well we did we succeed (strong emphasis on) 'really'

<div align="right">Project Leader 1</div>

The experimental way in doings things and the sincere communication with others has been approved by the other interviewees as a cultural attribute for the Swedish culture. The Swedish people are working together on a common goal, while being responsible for their own activities. An example given by another interviewee is that:

"When a Belgium guy writes me a mail, they write a mail with me on top and then copy it to 30 or 40 people, where several managers are additionally addressed through the mail. So, they really show that they work and put pressure on everything. Here in Sweden I can maybe send it to the person I want to tell something to do, and maybe copy it to my coordinator. I don't want to disturb so many people that are not necessarily needed"

<div align="right">Project Leader 3</div>

It not only changes the view how actions are interpreted, but it directly affects the way how people are communicating with each other. The Swedish project leader can utilise the Swedish context to give lateral feedback to each other, using the Swedish language to foster collaboration between local project members. The "natural way" of communicating for Swedes is especially in contradiction to the Chinese way, as one project leader describes it:

"If you would give feedback to a colleague [in China], you would give your colleague an advantage because you actually want to help that person to do things better; which means that that person may become promoted before you become promoted"

<div align="right">Project Leader 1</div>

However, this is also related to the cultural experience of the individual, as one project leader who has been in China for several years explains that there are mainly individual differences and the same conflicts can be with Swedish people as well. The difference is merely because the individuals live in different communities that have different expectations:

"It is a quite different expectation between Swedish and Chinese colleagues, where for example in China we always have a lot of time pressure and put the task first, but in Sweden the concept of time is perceived differently as you can go to vacations or maternity leave even if there is an emergency call"

<div align="right">Project Leader 7</div>

It comprehends the complication that results in having cultural sensitivity to communicate with international colleagues. However, the response of the interviewees is that the experimental approach and flexibility that was described earlier to provide mutual support is a sustainable method for team effectiveness and to overcome the problematic caused by cultural differences. Leadership according to the interviewees is about a learning process of "trial and error" that leads to a community of practice.

5.3.3 Language conflict

Language conflicts were probably the most noted issue that was caused by GVT and cultural diversity according to the interviewees. It is the essential ingredient for effective communication to speak a language that is understood and perceived by each other. Local teams tend to have a different style of language than the offsite team. An apparent theme was the way how feedback was given to the GVT in Sweden and China.

"In Sweden, you can have easily a group dialog regarding personal reflections with around 20 people. [...] In China, I have experienced that you have to conduct the dialogue in rather small groups, where you can sustain a comfortable environment for everyone"

<div align="right">Project Leader 1</div>

The difference is related to the mind-set of Swedish people in comparison to Chinese ones who tend to be more supportive instead of being competitive. While the Swedish colleagues want to have their freedom to enhance the group process, the Chinese colleagues are more competitive to do their activities by their own to improve their career possibilities. Moreover, the language is dependent on the actual words and vocabulary that differ between cultures. In an international context, it is stated that English is usually used for virtual endeavours. Whereas the language differences between the American, Belgium, and German colleagues are said to be minor, the differences towards the Chinese colleagues are considerable. It is further increased due to the loss of face-to-face interaction, which even seems to have an impact on the local team in terms of language barriers:

"That [the loss of face-to-face communication] is definitely negative, specifically when you talk to people that are not that familiar with the language. For example, the Chinese they don't speak that well English"

<div align="right">Project Leader 3</div>

"In Sweden they see me, when I discuss it with them more open. During our meetings, I can point or make some sketches and drawing or talk to them naturally, when we have no language bridge to cover. It is easier to describe, because I am not a professor in English either, and not in Chinese English either. So, the language I don't see it as a problem. Of course, it is easier to talk in Sweden with the Swedish colleagues. You can work in more detail, since our vocabulary is richer for me than English"

<div align="right">Project Leader 2</div>

The richness of vocabulary of the project leader is an issue for international collaboration, where the project leader is the medium for interactivity between the local and offsite team. When the project leader cannot convey the message properly towards GVT members, or even understand their message, information is lost and impacts the team effectiveness. Nevertheless, the differences in verbal and non-verbal communication can be learned through regular feedback and evaluation sessions. As it has been done with the Chinese way of communicating, it has been stated that the Chinese colleagues don't question the authorities:

"When it comes to the Chinese people, I would say they don't know what they have to do, but when I ask them 'Do you know what you have to day?' they always answer with 'Yes! Yes! Yes!' [...] They cannot say 'No!' and they don't ask you additional questions to understand or how they can solve their task easier. When we say 'Yes!' then we know what we have to do. So that is why we have to ask more questions, even though they answer you with 'Yes!'"

<div align="right">Project Leader 3</div>

Therefore, the project leaders identified the need of asking more questions, being more precise in the framing and pronunciation of words, taking more time to listen and interpret their language, and trying to read their body language properly. This leads to increased costs for spending most of the time for rather trivial activities, but it increased the team cohesiveness and is used for the greater good. To gain the ability to communicate better and increase their cultural awareness, the interviewees mentioned to have at least every two years face to face meetings with their opposition:

"I think language is one of the toughest challenges I have experienced. Because we have difficulties to understand them in the beginning but I think after I have met the Chinese colleagues, it is easier to understand them what they say. That has been the valuable thing with the trips to China to meet them, sit down and talk and face-to-face with them. There we understand who we are and getting more personal, and after that the phone meetings have been easier [...] It is helping for the communication afterwards"

<div align="right">Project Leader 2</div>

It was even mentioned that the miscommunication with the Chinese colleagues can be neglected to the level of the Swedish colleagues, when cultural saturation has been reached. At the point when the project leader is embedded in the foreign culture and has accumulated rich cultural intelligence, communication seems to be as natural as in one's native country:

"People in China do not say more often 'Yes! Yes! Yes!' than the Swedish people. Swedes also say 'Yes! Yes! Yes!' during meetings and after the meetings you have a discussion of how they really feel about it"

<div align="right">Project Leader 5</div>

5.4   Collaboration

Collaboration is the act of aligning human resources in a sustainable way that enriches the team cohesion. It is required to establish rules in which each team person has a designated role and responsibility that is necessitate in meeting the objectives. As one project leader describes it:

"In every collaboration, you should set up the rules and engagement; define how you should behave towards each other in the time; and also reflecting and giving feedback on how you are engaged and understand the rules"

<div align="right">Project Leader 1</div>

It is the basis that establishes the environment in which individuals follow their project responsibilities. However, the project leader has not only to set up the rules

and engagement during the project, but to challenge the team members in collaborating, which can be a difficult endeavour for GVT. Like the section of social categorisation, the problematic was to receive detail information for local and GVT, as most findings were related to the local teams. Since most follow-up questions regarding how to delegate responsibilities to GVT members and how to manage effective team work for the offsite team could not be answered. The following analyse is thus mostly based on the notes conducted by the interviewer. The findings in relation to collaboration conclude that most interviewees reasoned to delegate more responsibility to team members, but that it required trust, which was not always sufficient between project leaders and team members; so, control activities excelled trust-building activities.

5.4.1 Trust

Trust, as identified in the theoretical framework, was often established between the local teams, but was missing or insufficient for the offsite teams. It is partly the result of the ICT that has been used by the GVT, which will be described in **Chapter 5.5** in more detail, but also by the need of having control:

"My part is to gather the activities around the task that is my priority […] so when it comes to time and cost we have the responsibility as project managers"

Project Leader 3

It is in conflict, or at least difficult to delegate responsibilities to team members, when there is no trust available. The way of establishing trust has not been mentioned in detail, but that it comes more naturally during the project. However, it is a process of practice to see who can be trustworthy to let them do their activities on own and receiving acknowledgment for their contribution. It would benefit the project leader as well:

"If I can improve to let the people do their job without checking them, they should feel their proudness of their deliveries as well. It would benefit both parties"

Project Leader 2

Nonetheless, the issue of trusting GVT members is more complex. The loss of having the same relationship to local team members is deteriorating the efficiency of communication. The most reliable way of forming trust according to the cultural perspective of the project leaders is to establish a common ground, which will be the basis for the group process:

"First of all, meetings have to be conducted face-to-face. Talking about things, reflecting about things, that is not directly related on the technical task but share reflection on how you receive and give feedback for instance. Talk about trust and define trust within your team. Understand differences and similarities. So basically, get down to business in terms of talking what you need […] how hard is it for me to admit that I am wrong, how important is high quality standards in delivering it, to talk about those things opens up to get to know each other better and that is also part of building up trust, or showing that you can deliver on time"

Project Leader 1

Showing how you think and who you are is essential to be able to work with each other. It resolves around accumulating cultural intelligence to understand what people expect, how they act, what they value, etc. The easiest way is to openly talk with the colleagues about the business context before the actual project work. However, due to the limitations of ICT, the project leader should have some experiences in working with the other cultures. Since people from different cultures have acquired a different expectation system, the project leader should not expect the same results by following the same procedures. It is important to adapt the system to the needs of the culture, that relies on the individuals experience. Therefore, the interviewees that have less experience with their international colleagues had to invest more resources in their leadership duties than interviewees that have accumulated a lot of cultural intelligence.

5.4.2   Motivation

The question of how to motivate the GVT members was surprisingly unexpected by the interviewees, as motivation was not really perceived as a core activity of leadership, but something that was done besides the actual project work. During the project, the team members should be engaged to fulfil their responsibilities in time and within the costs. Whereas conflicts can occur, one project leader denotes that:

"It is important to be clear and not shout at them to pin point to the flaws and state the expectations and suggestions of how it has to be done next time. The last question in those meetings is to ask them whether [strong emphasis on] 'We' can support them somehow, and to let them know that the task is in their hand, while we try to help them where we can"

<div align="right">Project Leader 3</div>

Motivation according to the interviewee is about clear communication to state how everyone contributes to the project objectives and showing acknowledgment for their completion of project tasks. The role of the project leader is to mentor and guide the project members over the course of the project and to celebrate certain milestones together as a team. This can be done by bringing "cakes" to the office, or having dinner together after the work. Those examples were based on the Swedish context, whereas the Chinese colleagues value motivation with career driven opportunities:

"They [the Chinese] are motivated by possible advancement, to learn new things, and given more responsibilities. It is a very competitive market"

<div align="right">Project Leader 7</div>

Consequently, the issue is that motivation is difficult to exercise across ICT, whereas different motivation factors are required for different communities. Apart of travelling to the offsite teams and have face to face contact to appreciate their contribution to the project, the virtual project leader is bound to verbal communication:

"I at least try to be positive. So, in those virtual meetings I try to address what has been well and let everybody be part of the success. It is definitely more difficult across borders, but you have to focus more on your words and phrases and try to understand what your opposition wants to hear from you"

<div align="right">Project Leader 4</div>

5.5   Communication technology

All project leaders have experienced similar usages and the resulting complications with ICT in GVT. It has been said that the communication between GVT is done through Skype for Business, which is used for its technical functionalities. Whereas Skype for Business offers a video tool, it is rarely used as screen sharing with audio has received most of the attention because that discussions can be directly framed to the project or product. Moreover, the benefits of using asynchronous technology help to overcome miscommunication based on language differences:

"You can just send a short question instead of typing a mail. It also stores the data and it is available for the group later on. It is also easier to understand written English, written Chinese-English (laughter) than Chinese words"

<div align="right">Project Leader 2</div>

For conferences, telephone communication is used as it is easier to maintain and to "simply call one another" instead of managing the process of gathering everybody in a single portal. An apparent reason for the choice of communication is also that is has been established long ago and changes to the system have been avoided:

"When we started the projects we directly used Skype for Business and kept using it rather than any other tools"

<div align="right">Project Leader 5</div>

In response to the question why face to face communication is avoided or not utilised, the project leaders stated that on the one hand the nonverbal communication with their remote teams can be quite distracting from the actual work, while on the other hand, the level of technological adoption varies between individuals. Nonetheless, the importance of face to face conversation and collaboration for enriching discussion has been approved by the interviewees:

"So, everybody gets to know each other on a working basis; (strong emphasis) actually, working together and not only reporting to each other"

<div align="right">Project Leader 6</div>

Thus, the project leaders argue that face to face communication is needed to shape a picture of the opposition that helps to understand the cultural differences between each other. However, it is only required to a certain degree to leverage language differences, but the focus should remain on the actual project, which is why medium to low social presence technologies are preferred.

6   Discussion

In this chapter, the theoretical framework and the findings of the interviews were juxtaposed and analysed for new knowledge accumulation that were used for answering the research question.

In the previous chapters the knowledge areas virtual leadership (leadership perspectives and leadership styles), culture (static- and dynamic framework), conflict management (social categorisation, team diversity, and language), collaboration (trust and motivation), and communication technologies (social presence) were discussed and used as the basis for the interviews to understand the influence of culture in virtual leadership activities in a single case study. Since the study was explorative in nature, it could not be narrowed down which knowledge areas were relevant for the research question but to keep a wide scope throughout the interviews. The findings of this study, however, showed that there is a mutual connection between the leadership activities, and that differences in management styles can be extrapolated to differences in cultural intelligence, subgroup dynamics, and the degree of language comprehension. As cultural intelligence and subgroup dynamics mutually influence virtual leadership in the areas of social categorisation, team diversity, trust, and motivation, the structure of this chapter differs from the previous ones. In the following, the discussion starts with the findings of virtual leadership styles in the Swedish context, followed by the examination of cultural intelligence and subgroup dynamics, language conflict, and ends with the insights of communication technologies for the case study.

6.1   Virtual leadership

The findings of the interviews indicated that culture and virtual leadership are strongly related to the specific context. The case company embraces a homogenous framework that supports global collaboration through mirrored organisations. It means that the processes that are defined in one location are following the same steps and guidelines of other locations. Due to this rigorous framework, the interviewees stated that leadership can be divided in task-, functional-, and social processes, which can be the reason for the different leadership perspectives that are debated among scholars (Huang et al., 2010, Purvanova and Bono, 2009, Judge et al., 2002, Barrow, 1976). Internal task processes are documented by the case company to support global collaboration to emphasise knowledge work and to meet the same quality standards, whereas external task processes can be described as coping with the specific environment of each location. It includes a description of how to deal and select suppliers that fulfil the requirements of the organisation, while addressing the specific market needs. Task processes therefore can emphasise a similar leadership style that is guided by the organisational structure of the company (Gilson et al., 2015, Lee, 2013, Hambley et al., 2007). On the other hand, the case company stimulates innovation and flexibility through a flat hierarchy, where people can organise themselves to utilise their competences in meeting business objectives. Since innovation and flexibility is in contradiction to rigid structures, functional- and social processes are more dynamic in their execution. According to the definition of the interviews, functional processes utilise the expertise of individuals and their professional backgrounds, while social processes appreciate the differences in communities of individuals. In both cases, the leaders must exploit their social and

cultural understandings to manage effectively. According to Den Hartog et al. (1999) it can be traced back to the various expectations of the social communities that require a different form of leadership. Especially, in GVT it has been stated by the interviewees that there is much freedom for speculations due to the limited social presence of ICT. Instead of managing team members in a natural way (i.e. face to face), the "effectiveness of a leader is […] inferred through the lens of cultural values" (Spreitzer et al., 2005, p.13). Since the interviewees have a Swedish background or have adopted the Swedish culture, the insights of those interviews can be extrapolated to the findings of Hofstede's (2010) research to understand how the lens of cultural values is defined for the Swedish perspective in managing task-, functional-, and social processes.

6.1.1 The Swedish perspective

The interviewees have stated that in their local teams the members interact independently, whereas leadership is about mentoring and coaching. Exercising too much control in this environment is being counterproductive, as it hinders the flow of the activities for the project members, but also increases the work for the project leader. The project leaders of the case company utilise an 'experimental way of doing things' that lead to a more collaborative and social experience in the local context, where project members receive more responsibility and respectively, will be more acknowledged for their own work. As it is described by the Swedish interviewees, it is the most sustainable way in conducting projects. The findings of Hofstede's (2010) research confirm the same analyses for Swedish people that the low uncertainty avoidance emphasise a more 'trial by error' preference. This approach, however, has experienced resistant behaviours in other cultures, as mentioned by the project leaders of this study. In the Chinese context, the mentoring and coaching is perceived negatively as a more task-focused leadership is required. The collaboration with the Chinese colleagues is interpreted by most of the interviewees as being more challenging. Nonetheless, the findings of the interviews indicate a development progress in global collaboration as experience and long-term commitment reduces the differences between local and remote teams, as it is further described in **Chapter 6.2**.

In general, it can be stated that the situational leadership style is favoured by the interviewees in project settings due to the flexibility in managing task-, functional-, and social processes. The case company facilitates a control-related (i.e. transactional) leadership style to meet business objectives and to embrace global collaboration. Furthermore, the flat hierarchy of the case company enriches the group process of individuals to generate innovation. It is in correlation to the Swedish 'experimental approach', which was described by the interviewees and supported by Hofstede (2010), to utilise a people-related (i.e. transformational) leadership approach to support the individual competences. It ultimately leads to a mixture of transactional and transformational leadership style, namely the situational one, which has also be proven successful in GVT that have to deal with many challenges and constraints (Kayworth and Leidner, 2002). The situational leadership style, however, describes the delegation of several leadership approaches depending on the situation (Lee, 2013). It is in correlation to the findings that show that the Swedish leaders utilise situational leadership differently. Especially in virtual endeavours the various situations are strongly related to the social communities that are caused by different perceptions and understandings of team members (Stark and Bierly III, 2009). It is

part of the reason why some project managers experience less distraction in collaborating with China than others, whereas both groups of leaders exercise the same leadership style as it was further described in the next parts.

6.2   Conflict management & collaboration

The organisational framework of the case company sustains effective collaboration between multiple locations due to their fixed processes that must be followed by every GVT. Nonetheless GVT should be treated as "social construct[s]" (Maylor, 2010, p.6) that consists of groups of individuals with various cultural backgrounds that cannot be controlled with formal processes. The level of social conflicts therefore remain the same or even rise with the increase of virtuality (Stark and Bierly III, 2009). It has been confirmed by the Swedish interviewees that the emotional conflicts felt to be more significant in the team process with their remote team members, in comparison to local team members. Whereas this can be argued due to the nature of cultural diversity (Kankanhalli et al., 2006), it does not explain why Swedish project managers that are located in China experience the same conflicts with their colleagues in Sweden. The explanation of the increased emotional conflicts is much more related to cultural intelligence (Earley and Mosakowski, 2004), geographical dispersion (Durnell Cramton and Hinds, 2004), and language (Walther, 2011) as it is described in the following.

6.2.1   Cultural intelligence

One of the primary challenges of the virtual project leader is to manage beyond the local practices to collaborate effectively with GVT (Lee, 2013). Whereas most of the literature is focusing on the application of leadership, the role of the individual leader is often neglected (O'Leary and Mortensen, 2010, Siebdrat et al., 2009, Kahai et al., 2007, Gibson and Gibbs, 2006). The insights of the interviews, however, indicate that the interpersonal competences of the virtual project leader change the way how remote teams are interpreted.

A high level of emotional intelligence enables the project leader to understand what makes individuals different from each other, whereas cultural intelligence "picks up where emotional intelligence leaves off" (Earley and Mosakowski, 2004, p.1). It describes the knowledge of identifying behaviours of individuals and associating them either with a community of individuals or as an individual trait. Although cultural intelligence is similar to the systematic framework of culture, a cultural intelligent person suspense judgment until enough information has been gathered (Triandis, 2006). The conflict is that communication and collaboration can only be effective when individuals share a common ground (Clark and Brennan, 1991), which requires mutual knowledge. Knowledge in this context can be gained through superficial information, such as ethnocentrism, prejudices, and stereotyping that often lead to misunderstandings and conflicts (Kankanhalli et al., 2006). Subgroups, as it is described in the next part, can also provoke personal and societal attribution towards individuals that are distant to one's own group. If individuals are limited to their own cultural systems, they cannot look beyond their set of norms and subconsciously make incorrect judgments of their oppositions. On the other hand, a longer lasting process is to acquire experience in working with diverse cultures together, or to increase one's own cultural intelligence through regular education. It is the active development of

cultural understanding to project the individuals behaviour to the situation (Triandis, 2006), while being "sensitive to their concept of time, religion, power, communication, and individualism" (Lee, 2013, p.117).

Cultural intelligence therefore can be used as an argument why Swedish project leaders in China experience the same conflicts with their colleagues in Sweden. The Swedish project leaders are encouraged by the case company to go abroad to experience the difference cultures. Whereas some positive affect in collaboration was noted afterwards, one interviewee stated that the cultural richness of a country cannot be conceptualised in weeks or months. One has to be integrated in the community to acknowledge the differences (Markus and Kitayama, 2010). Consequently, the Swedish project managers that stayed in China for a couple of weeks still experienced complications that were traced back to the different working styles in China. However, another project manager that stayed in China for a couple of years noted no differences in cultures anymore, but differences in individuality. As the interviewee described it, the cultural assumptions are rich when no other contextual information is available, but reduces with the increase of cultural knowledge. It indicates that cultural intelligence is related to the collaboration process of global teams and that by "adopting people's habits and mannerisms, you eventually come to understand in the most elemental way what it is like to be them. They, in turn, become more trusting and open" (Earley and Mosakowski, 2004, p.3). Thus, instead of using superficial information, a common ground can be created through high levels of cultural intelligence.

6.2.2 Subgroup dynamics

The emotional conflicts between local and remote team members can be traced back to the different understandings and reasoning of situations. In contrast to Clark and Brennan (1991) mutual grounding principle, where demonstrative references are used to facilitate communication, the attribution theory seem to have more impact in global virtual teams. As the interviewees stated, the limitations of ICT cause the project leaders to use progressively personal- and societal attribution to make sense of their environment. However, personal and societal attributions are very dynamic in nature and can be misunderstood as the project leader must delegate between characteristics that belong to the individual or the community (i.e. utilising cultural intelligence). Correspondingly, the attribution starts from the expectations of the project leaders that are shaped by their individual experience that conflicts with the experience of people that do not share the same understanding. It basically means that the same conflict can be reasoned and dealt with differently depending on the experience and expectation of communities.

It describes the process of social categorisation through subgroup dynamics. As it was stated in the theoretical part in **Figure 2.2** there are two different schemas for subgroups, the independent and interdependent one (Markus and Kitayama, 2010). It becomes relevant when looking at the perceptions of Swedish and Chinese colleagues. While the Swedish project leader argued that feedback and discussions were much easier and faster implemented by their local teams, the opposite was conducted by their remote teams. It can be traced back to the deterioration of natural communication due to ICT. So, the Swedish project leader must schedule the feedback sessions with the remote teams and prepare for them, whereas the feedback

for local members is primarily done through natural discussions besides the day-to-day work. However, that also applies for the opposite case, as it was mentioned by one interviewee, that Chinese managers experience the same conflict in managing remote teams in Sweden. Furthermore it has to be accentuated that the independent self-schema is in contrast to the interdependent self-schema by having distinctive applications in individualistic and collectivistic cultures (Markus and Kitayama, 2010). Sweden, as a more individualistic culture interprets their self independently from others, whereas China interprets their self as a collectivistic value (Hofstede and Minkov, 2010). The visualisation of **Figure 2.2** thus shows the complication of mixing both schemes together in virtual endeavours. It can be explained, as the interviewees stated, that the Swedish people think for themselves and like to be individualistic in their activities, whereas the people in China must involve the opinions of their family members (i.e. personal opinions) in business decisions. Therefore, not only do the subgroups counteract each other, but also one must incorporate the different perspectives of what the subgroup consists of. Correspondingly, the findings show that the Swedish interviewees experience a conflict with the Chinese colleagues, since they should take the families interest of the Chinese colleagues into account as well to make proper decisions.

This results in the consequence that the project leaders experience high levels of in-group behaviours with their close colleagues' due to the ease of communication and collaboration. It is further supported by sharing the same educational and cultural background with the Swedish colleagues in Sweden. Therefore, the findings indicate that the project leaders that have a low cultural intelligence are positively influenced by the social group identity of the in-group, whereas the out-group characteristics are perceived negatively or counterproductive for the collaboration process. In case of high cultural intelligence, the barriers between in-group and out-groups deteriorate and cross-cultural communication can be enabled.

6.2.3   Language conflict

The interviewees perceived cultural diversity in virtual teams primarily by the degree of language differences. This is due to the geographical and psychological distance in which team members are missing a common ground to understand the context of the language (Clark and Brennan, 1991), but also by the degree of cultural diversity (Lee, 2013). Since English is the preliminary choice of language for international businesses, the deficiency in English vocabulary and variations of accents hinder the effectiveness of communication (Tannen, 1995). Apart of the differences in the English language, the non-verbal language is part of the communication as well. The local team members share similar ways of expressing their feelings and opinions, whereas offsite members deviate in their non-verbal communication. It leads to misunderstanding when cultural intelligence is low, especially in the context of virtual collaboration, where the usage of ICTs reduces mutual grounding (Walther, 2011). Correspondingly the diversity of languages in GVT can support to the formation of in- and out-group dynamics through creating language specific subgroups. Those groups are then supported by their native tongue and cultural context to enrich natural discussions with their colleagues (Kankanhalli et al., 2006).

The Swedish project leaders must manage effective communication between the local and offsite team and must overcome language barriers in order to make collaboration

prosperous. As described in the previous chapters, the project leaders add more cost-consuming activities to take more time to cover the agenda in meetings, or to ask follow-up questions with their remote colleagues. Furthermore, the value of regular face to face meetings was particularly pointed out to the collaboration with the Chinese colleagues to leverage primitive miscommunication to educate each other in cultural diversity to understand how each other works and thinks. Consequently, virtual leadership methods exercised by the interviewees have been adapted to the specific context of the project. Whereas virtual leaders could express (i.e. verbal and non-verbal communication) their opinions in a natural way in the local environment, it was requested to change the processes when interacting with people outside the local GVT. The degree of adaption was related to the differences of cultural attribution, whereas the collaboration with the Chinese colleagues was perceived as the most challenging one. It leads to the effect that virtual project leaders are limited by their language comprehension to delegate cultural diverse teams. Whereas a high degree of language comprehension overcomes the language barriers between GVT, the conflict arises when the leader does not understand the context of the offsite teams. This simply leads to the fact that the virtual project leader interacts more closely with their local members in a natural way, rather than enabling global communication channels to stimulate innovation and knowledge work.

6.3   Communication technologies

The problem caused by ICT in the virtual context could not be elaborated fully by the project leaders since the awareness of technological advancement is limited. This is since the responsibility remains on sides of the case company who provides the equipment and tools that can be used by the project leaders. Technological alternatives are restricted to the functionalities of Skype for Business that are utilised for most communication channels between local and remote teams. An apparent reason for Skype for Business is the asynchronous chat function to leverage language differences (Shachaf and Hara, 2007). Since English is a non-native language for Sweden and Chinese colleagues, the differences in pronunciation and vocabulary create misunderstandings that can be overcome through written English. Nevertheless, the emotional conflicts between local and remote teams are also based on the technological limitations. As one of the interviewees stated, Skype for Business is not a reasonable choice for important discussions that have an impact in meeting project objectives. It is in correlation to the social presence theory that interpersonal involvement is required to resolve conflict issues (Rhoads, 2010, Daim et al., 2012, Short et al., 1976). To manage those conflicts the project leader utilises synchronous channels like telephone calls to talk to individuals separately, or in some cases the project leaders must meet their colleagues in person to resolve them. Telephone calls, however, are not appropriate to resolve issues for most cases due to the low social presence that can lead to further misunderstandings, while face to face meetings are expensive and time consuming. However, the interviews stated that the technological advancement is not always sustainable. As mentioned, the task processes are well defined by the case company to enable global collaboration. Correspondingly the different locations require the same technological standards to be able to exchange knowledge. Furthermore, changes at one location would create a reaction in other locations to change as well, to keep the global standards and quality. Besides the organisational restrictions of technological adaptation, the interviewees mentioned that change also has to be accepted by the individuals, even though the benefits of

ICT adoption stands out (Ahuja et al., 2009). The focus remains on the different levels of technological adaption between older and younger generations, which is also supported by the literature (Hernández-Encuentra et al., 2009). Not everyone is feeling comfortable to be always accessible and to replace the face to face conversations with ICT. Nonetheless, in a project-based environment it is required to be able to communicate on an ad-hoc basis, regardless of geographical boundaries to facilitate innovation. Ad-hoc principles are simply describing processes that require no further interaction to communicate with one another. Since no relevant insights could be made with this research regarding culture and communication technologies, further research is required.

7 Conclusion

The aim of this study was to investigate how culture shapes virtual leadership in GVT. Since empirical investigations were limited in current literature the focus was based on the static framework of culture to compare the leadership perspectives by selected interviewees of the case company. The author therefore focused on an explorative study in using an inductive approach to receive empirical insights in answering the research question. However, sub-research questions were used to guide and narrow down the scope of the research and will be answered first, as they are the basis for understanding how culture affects the management of GVT

7.1 Sub-research questions

What are the characteristics of leadership types used for GVT?
The first sub-research question was answered partly by the literature research and partly by the findings of the interviews. At first it has been identified that virtual leadership styles focus on the functional-, and social processes in managing GVT. The project leader can utilise individual competences in exercising leadership, but a people-orientated approach seemed to be more prosperous in understanding the context of the local and remote team members. It has been investigated that leadership in GVT is more susceptible to the social communities, and that the level of cultural intelligence is related to the effectiveness in managing GVT.

How is cultural diversity defined in GVT?
Cultural diversity is focusing on the national differences of individuals. It is understood as a systematic framework to conceptualise cultural differences in behaviours of group of individuals that lead to the formation of cultural dimensions. Within those cultural dimensions, it becomes clear that the educational system of each country leads to different behaviour patterns and expectations for its people. On the other side, cultural diversity is embedded in the social communities of its people that can lead to subgroup dynamics within GVT. This indicates that group characteristics of the in-groups are positively reflected, while out-group characteristics are interpreted negatively.

How does the culture of multicultural teams affect conflict management, collaboration, and communication technologies?
It can be understood by knowing the conflicts in GVT are caused by misunderstandings that are reasoned by missing a common ground and trust. Correspondingly, spontaneous traits, or stereotyping are used to make sense of their environment by giving attribution to their offsite members. Whereas in local endeavours this attribution is exchanged with personal experiences, in GVT one is limited to the information richness of ICT. That means that culture has a much bigger impact to those one cannot interact with in a natural way. Culture in this case is then based on the cultural intelligence and language comprehension of the project leader to enable cross-collaboration. People who have a high level of cultural intelligence are less affected by their social environments and interpret diversity in conflict, communication, and collaboration as individual differences rather than cultural ones.

7.2   Research question

How is the culture of the virtual project leader influencing the management of GVT?

The answer to this research question can be explained by referring to the differences in task-, functional-, and social processes of the case company. Task processes are defined by the case company and can be understood as the transformational leadership style in using organisational resources to manage team objectives. It can be stated that leadership does not vary in the task-related processes among different locations (e.g. due to the mirrored organisation), which indicates that culture has no impact in the management of task activities. Functional- and social processes, on the other hand, require flexibility due to the flat hierarchy of the case company to manage the efficient communication flow between divisions, but, more importantly, to enable knowledge work that is embedded in the individual and cultural perceptions of GVT. In contrast to the task processes, the functional-, and social one requires a transformational leadership style in using the leader's interpersonal competences and cultural intelligence to manage emotional conflicts. Thus, even though the task is leading in the management of people, the members of the GVT must follow a common goal that is related to effectiveness in exercising virtual leadership. Since local and global team members should be managed simultaneously to enable cross-collaboration, the project leader should immerse in the cultural lenses of their GVT members to avoid misunderstanding based on cultural differences and the formation of subgroups. Only when the cultural intelligence and language comprehension is sufficient for a natural communication that can overcome the barriers of ICT, the differences in perceptions can be argued to be originated from individual rather than cultural differences. Conclusively, culture in the case company of this research only has impact on the functional- and social processes of the project. The level of impact depends on the cultural understanding of the project leader, whether attribution is based on the cultural or individual characteristics and therefore can enable effective collaboration between local and global members. The cultural dimensions only have an impact if personal information is missing and when the cultural experience is low so that stereotypical information is utilised for attribution and sensemaking.

7.3   Recommendations for future researches

The primary limitations of this research were noted in **Chapter 1** and specific recommendations for the case company were described in **Appendix D**. However, it should be mentioned that throughout the research further limitations biased the outcomes of the study. The first issue is that the research is limited to seven interviewees and even though theoretical saturation was reached, the quality of data must be improved by increasing the quantity and time scale to investigate changes in leadership behaviour. Since changes in culture, trust, and conflict resolutions are based on the mutual understanding of project members, they should be investigated at different stages of the project, rather than looking at a specify time phrase as it was the case of this research. Secondly, the scope should be increased from a single case study to an industry to delegate between changes of leadership behaviours that are related to the individual, organisation, or community. The insights of this study therefore should be used only in its specific context that were described earlier, whereas the insights can stimulate future researches to build up onto them and understand better the perspective of culture in virtual endeavours. Lastly, subgroup

dynamics were noted as a significant part of answering the research question for virtual leadership. The subgroups dynamics, however, have been conceptualised from an individual perspective of the interviewees and simplifies the complexity of the social network theory. It is therefore recommended to conduct further research in the social network theory for virtual leadership by investigating multiple cases over the course of several projects.

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9 Appendix A

9.1 Cultural Characteristics

Table A.2.1 Uncertainty Avoidance (retrieved from Hofstede (2011, p.10).

Weak Uncertainty Avoidance	Strong Uncertainty Avoidance
The uncertainty inherent in life is accepted and each day is taken as it comes	The uncertainty inherent in life is felt as a continuous threat that must be fought
Ease, lower stress, self-control, low anxiety	Higher stress, emotionality, anxiety, neuroticism
Higher scores on subjective health and well-being	Lower scores on subjective health and well-being
Tolerance of deviant persons and ideas: what is different is curious	Intolerance of deviant persons and ideas: what is different is dangerous
Comfortable with ambiguity and chaos	Need for clarity and structure
Teachers may say 'I don't know'	Teachers supposed to have all the answers
Changing jobs no problem	Staying in jobs even if disliked
Dislike of rules - written or unwritten	Emotional need for rules – even if not obeyed
In politics, citizens feel and are seen as competent towards authorities	In politics, citizens feel and are seen as incompetent towards authorities
In religion, philosophy and science: relativism and empiricism	In religion, philosophy and science: belief in ultimate truths and grand theories

Table A.2.2 Power Distance (retrieved from Hofstede (2011, p.9)).

Small Power Distance	Large Power Distance
Use of power should be legitimate and is subject to criteria of good and evil	Power is a basic fact of society antedating good or evil: its legitimacy is irrelevant
Parents treat children as equals	Parents teach children obedience
Older people are neither respected nor feared	Older people are both respected and feared
Student-centered education	Teacher-centered education
Hierarchy means inequality of roles, established for convenience	Hierarchy means existential inequality
Subordinates expect to be consulted	Subordinates expect to be told what to do
Pluralist governments based on majority vote and changed peacefully	Autocratic governments based on co-optation and changed by revolution
Corruption rare; scandals end political careers	Corruption frequent; scandals are covered up
Income distribution in society rather even	Income distribution in society very uneven
Religions stressing equality of believers	Religions with a hierarchy of priests

Table A.2.3   Individualism and Collectivisms (retrieved from Hofstede (2011, p.11)).

Individualism	Collectivism
Everyone is supposed to take care of him- or herself and his or her immediate family only	People are born into extended families or clans which protect them in exchange for loyalty
"I" – consciousness	"We" –consciousness
Right of privacy	Stress on belonging
Speaking one's mind is healthy	Harmony should always be maintained
Others classified as individuals	Others classified as in-group or out-group
Personal opinion expected: one person one vote	Opinions and votes predetermined by in-group
Transgression of norms leads to guilt feelings	Transgression of norms leads to shame feelings
Languages in which the word "I" is indispensable	Languages in which the word "I" is avoided
Purpose of education is learning how to learn	Purpose of education is learning how to do
Task prevails over relationship	Relationship prevails over task

9.2   Cultural Dimensions

Table A.3   Cultural Dimensions related to Motivation (retrieved from Lee (2013, p.162)).

Cultural Dimension	Primary Dimension Traits	McCelland's Motivational Orientation	Example Motivators
Individualistic	Self-reliant, self-sufficient	Achievement	Provide challenging tasks and autonomous work. Set goals and clear objectives and give feedback and recognition for work done well.
Collectivistic	Group orientation— family, community, company	Affiliation	Encourage team-building and relationship-building opportunities. Encourage leadership of team activities.
Low-Context	Direct, task oriented	Achievement	Give recognition as a subject matter expert. Allow opportunities to handle schedule and milestone tracking.
High-Context	Ambiguous, relationship oriented	Affiliation	Provide opportunities to acclimate and coach new team members. Allow this person to be in charge of the communications plan for the project and facilitate communications.
Low-Power Distance	Equality, no one person or group holds power	Affiliation	Give this individual the responsibility to handle the issues and risk logs and to facilitate consensus decisions and collaborative work.
High-Power Distance	Distributed power based on position or politics	Power	Provide opportunities to lead meetings and to coach and teach others on the team. Include this individual in stakeholder and sponsor meetings.
Masculine	Traditional male sex-specific roles and responsibilities	Power	Provide opportunities to lead subteams and facilitate status meetings.
Feminine	Traditional female sex-specific roles and responsibilities	Affiliation	Allow opportunities to help resolve conflict and to negotiate and problem-solve within the team.
Low Uncertainty Avoidance	Flexible, adapt to new ideas, take risks	Power	Recognize this individual's contributions to the team. Include this person in problem solving. Provide opportunities for collaboration and collaborative leadership.
High Uncertainty Avoidance	Avoid uncomfortable situations. Prefer familiar, structured, clear and predictable	Achievement or Affiliation	Encourage this individual to be involved with setting up team processes and procedures.

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10   Appendix B

Master Thesis Interview Guideline

Nationality:
Years in the company:
Project Management experience:
Department:

Part 1: General Questions

1. How much experience do you have in leading project teams?
    a. Face-to-face teams
    b. International teams (i.e. project teams that share no physical location)

2. How frequent do you interact with your team?
    a. Using communication technology
    b. Having face-to-face meetings

3. How do you decide which communication method you use for which activity?

4. How do you deal in conflict situations?

5. How do you motivate your team?

Part 2: Cultural Questions

6. Please describe your position regarding the following questions.
    a. What organisational structure do you prefer more, hierarchical or flat structure?
    b. What is more important for you, giving clear expectations or mentoring your team members?
    c. Do you give priority to manage your activities around the task or the people?

7. Have you already gained international experience by for example living abroad?
    a. In what countries have you been and for how long?

8. Does your team consist of different cultures?
    a. What kinds of cultures are represented in your team?
        i. Can you explain some cases in which different cultures affected your team process?

9. Have you changed your leadership style, compared to the first time you managed an international project team?
    a. What did you change?
    b. Why did you change it?

10. Do you adapt your **leadership style** to different cultures or personalities in your team?
    a. What activities do you usually adapt?

11. Do you adapt your **communication style** to different cultures or personalities in your team?
    a. What activities do you usually adapt?

11   Appendix C

Informed Consent Form and Final Consent Form adapted from (www.pacificworlds.com, 2017)

Informed Consent

Project Description:
The aim of this study is to explore leadership in its cultural context, how virtual project leaders are affected by their cultural values. In this matter, the research of Hofstede is used to understand how culture is grounded in its value systems to influence leadership practices. The argument assumes that culture is shaping the leadership style, in contrast to Levitt's argumentation that leadership is similar across cultures.

Procedure and Risks:
I would like to record the interview, if you are willing, and use the tapes to write the materials. I will record the interview only with your written consent, and will ask that no personal identifiers be used during the interview, to ensure your anonymity. Please feel free to say as much or as little as you want. You can decide not to answer any question, or to stop the interview any time you want. The tapes and transcripts will become the property of project.

If you so choose, the recordings and recording-transcripts (or copy of notes taken) will be kept anonymous, without any reference to your identity, and your identity will be concealed in any reports written from the interviews.

There are no known risks associated with participation in the study.

Benefits:
It is hoped that the results of this study will benefit the community through providing greater insight into the culture and history of our area.

Cost Compensation:
Participation in this study will involve no costs or payments to you.

Confidentiality:
All information collected during the study period will be kept strictly confidential until you sign a release waiver. No publications or reports from this project will include identifying information on any participant without your signed permission, and after your review of the materials. If you agree to join this study, please sign your name on the following page.

Final Consent

Dear Participant:

This form gives me final authorization to use material from your interview. A draft of these materials should have been presented to you for your review, correction, or modification. You may grant me rights for this draft "as is," or with the modifications you specify, if any. The recording and transcript will be kept anonymous, without any reference to your identity, and your identity will be concealed in any reports written from the interviews.

I, _____, hereby grant the right to use information from recordings and or notes taken in interviews of me, to Markus Hundt, and as presented to me as a draft copy. I understand that the interview records will be kept by the interviewer and the project, and that the information contained in the interviews may be used in materials to be made available to the public.

_____ Date:_____
Signature of Interviewee

12   Appendix D

12.1   Recommendations

The intention of this chapter is to document the recommendation that applies for the case company in its specific context. Since the research focused on virtual leadership based on the management position of selected Swedish employees, the results have to be carefully interpreted and it is suggested to conduct more research in the respective field. However, the findings of the interviews in addition to recent literature advices to certain actions that were discussed in the following. Some of the recommendations already have been utilised in some cases or by some interviewees, but since they are important and relevant for global collaboration they were mentioned once more.

12.1.1   Communication plan

An apparent recommendation is to implement a communication plan to enhance the communication channels and enable cross-cultural collaboration. The planning of the communication activities, according to the PMI, is related to the project success since most delays can be associated with improper communication. It is important to address the issue of who needs information, when it will be needed, where it will be available, what type of communication medium will be used, how it will be retrieved, and whether cross-cultural conflicts should be taken into consideration. Whereas this rigorous framework has less impact on local endeavours, it has significant influence in virtual environments where communication is restricted by geographical boundaries (e.g. time differences, ethnical differences, cultural differences). As the literature denotes, it is important to increase the social presence of information and communication technologies (ICT) in more challenging activities that require careful treatments, while ICT that has less social presence can be utilised for faster, widespread communication. Similar, it is also relevant to delegate between push, pull, and interactive communication methods to understand the role and how the opposition has to deal with the information. The communication plan simply defines those activities upfront to avoid miscommunication with global team members and stakeholders. Since most of the conflicts of the case company, as described by the interviewees, can be traced back to improper communication and communication technologies, it is advised for being a global company to add more resources in communication planning.

12.1.2   Cultural awareness

The communication plan enhances the methods of sharing information with each other, but is neglecting the fact that information also has to be interpreted. Especially in global teams the influence of personal and cultural attributes changes the way how people can collaborate. Where people with high cultural intelligence are affected less by their own norms, people with less cultural intelligence are more affected by them. Nevertheless, due to several resource restrictions not every project member can be living for several months or years in another country to experience the local values and norms to avoid misunderstanding by being more culturally open to each other. The suggestion here, however, is adding to the already present education sessions

offered by the case company to increase team understanding by two means; namely the creation of a team contact sheet and ad-hoc project environments.

12.1.2.1 Team contact sheet

A team contact sheet is probably available in some form already in the organisation, but the importance and relevance for the project is further described. Most of the communication issues can be related to multi-cultural, international complications. While people are not sharing a psychical space, the tendency of creating in-groups and out-group's behaviours are significant and increases the psychological distance towards each other. Those complications must be overcome through transparent communication and increased awareness of each member's responsibility and role regarding the project. It is essential that project members create mutual respect and trust to mitigate cultural and interpersonal variances. When the GVT is not educated in those economical and geographical differences, complications can arise in which for example communication is unnecessarily stretched where people wait for responses but do not receive one before the next day and experience delays in their project work. The team contact sheet therefore can overcome those cross-cultural, but also interpersonal communication conflicts by making relevant information public to the team. It can be understood as a simple excel file to note down, the roles, office number, e-mail, time zones, hours of working, holidays, power distances, communication styles (e.g. deal-focused, relationship-focused), etc. So, prior to work or write to somebody, one can simply read the team contact sheet to receive all the relevant information to avoid misunderstanding and stereotyping.

12.1.2.2 Ad-hoc project environments

Ad-hoc project environments are more related in becoming a global company by avoiding stereotypical assumptions through relationship buildings. It can be understood by the example that people that work together in a local team can easier create relationships in comparisons to global teams, due to the ease in which information can be shared. While in global teams one is limited to the information richness of ICT to cooperate with someone, in local endeavours one has verbal- and nonverbal information, besides the offsite discussions that happen on the fly (e.g. coffee breaks, before or after meetings). It leads to the fact that local teams are much more flexible in information distribution and sharing than global teams. However, global teams have much more competences available than local teams. As one interviewee stated, a global company is rich in differences that can be used as a resource to stimulate innovation, but requires to be flexible to keep up with the innovation. Being flexible and creating relationships can therefore be accumulated by for example working closer with global members together. It describes the process of breaking apart the in- and out-group dynamics by sharing smaller project responsibilities with local and global members, such that the teams must invest more time in interacting with their global colleagues. In addition, it is required to enable project members to be accessible as much as possible to stimulate the same information sharing (verbal, non-verbal, offsite discussions) as with local teams. It is therefore suggested to conduct researchers in telepresence and online collaboration tools to foster relationship building between local and global members.

12.1.3 Language competences

As explained in the research findings, language complications have an increased influence in how projects are conducted and lead to increase sub group dynamics. The project leader is ideally in the middle of local and global team members to delegate and manage activities. Since the project leader is required to communicate with both sides in an international context, the English language is used. Whereas it has been stated that Swedish language is more proficient than the Chinese English, both languages must be understood properly by the project leader to avoid being biased by their own cultural norms. On the one hand, the language competences can be increased by the same methods as mentioned in the previous sections, but on the other hand, the project leaders should receive special attention to avoid language misunderstanding through workshops, trainings, and educations for the specific country with whom they should enable collaboration.

12.1.4 Long term commitments

Especially in global endeavours it is significant to establish meaningful relationships to overcome the conflicts or communication problems that are caused by geographical boundaries. As it was described by the interviewees the turn-over rate in Sweden is less high than in China, where competition is creating a very dynamic environment. The turn-over rate however influences the creation of relationships since every two years new project members must be educated in working globally and trust should be generated again. Nonetheless a successful project requires to have a stable core, so people who know the environment and can share their knowledge and experiences to their colleagues. It was mentioned that a so called 'match pair' is responsible for the communication between two different locations, which can be interpreted as the stable core. In larger settings, this might not be sufficient as the match pairs cannot communicate with every project member on a daily basis. It is therefore suggested to look out for people who stay for longer periods in a project, maybe enabling them to rotate positions within the project, so that relationships and experience can be accumulated to make the global collaboration more efficient.

12.1.5 Hiring process

The case company utilises a mirrored organisation style to embrace global collaboration between many locations. The issue is that the mirrored organisation is based on the values and norms of the Swedish culture, such as being a more flat-orientated organisation; valuing individualism in project environments. Even though the case company reforms its processes and systems to operate as a global company by acknowledging different value systems, the Swedish style will always be present in some form in the company. Since it contrasts with the norm of Chinese cultural standards, the mirrored organisation must seek out for individuals who are not bound to their native values, or are interested in the Swedish concept. It leads to the consequence that not everyone, also not in Sweden, fits into the project style of the case company. It is therefore important to carefully assess candidates to meet the requirements and passion that is in correspondence to the origin of the case company. In addition, it is relevant to look out for individuals who are internationally experienced or interested and have good English skills to avoid conflicts as they were described in the research.