

Virtual team communication in a multicultural decentralized organization

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<p>This research focuses on examining the communication processes of the virtual team operating in a multicultural decentralized organization. The research is conducted in one of the case company's business line's virtual team that consists of professionals geographically located in different European countries. The aim is to establish an understanding of how the virtual team is experienced as a working environment and how the team executes its internal communication activities. The aim is also to give some development suggestions for team communication tools based on the study results. Emphasis is put on online communication channels and intercultural communication aspects.</p> <p>Theoretical framework consists of a literature review regarding themes such as distributed virtual teams and organizations, online communication in a virtual team and intercultural communication in a virtual working environment.</p> <p>This research was carried out as a case study research. Case study approach was chosen as a suitable research method as the aim was to create a full understanding of the function of a virtual team communication practises in a multinational organization. More specifically, the research is executed as a single-case (holistic) design as the research focuses only in one organization and specifically in one team within the organization.</p> <p>The research revealed that the virtual team's communication processes works mainly quite well, and the communication activities are implemented via traditional communication channels. Anyhow, it would be in the company's best interest to find the opportunities of digitalization and to develop team's internal communications with the help of modern communication technology.</p> <p>In the end the researcher will provide some development suggestions for the virtual team communication tools. These suggestions are based on the research results.</p>	

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Keywords
virtual teams, decentralized organizations, online communications, intercultural communication, cultural diversity

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1 Introduction

This chapter presents the research project steps in more detail and gives an overall initialization regarding the position of virtual teams in today's modern business. This thesis examines virtual team operations with emphasis in online communications activities in a distributed multicultural organization. The aim is to establish an understanding of how virtual team is experienced as a working environment and how team executes its internal communication activities. The aim was also to give some development suggestions for team communication tools based on the study results. The research will focus on how virtual team members use their communication technology available, what kind of benefits and challenges the team has in their operations, how multiculturalism is experienced within the team and what kind of impact face-to-face communication has on building of trust among team members.

Appearance of the Internet has permanently changed our understanding of collaboration and team work. Internet has brought new ways to connect with others and due to new technologies, it does not matter where your team mate geographically locates or if all members of the team work in different time zones. (Zakaria, 2017, ix.) This technological development enables global cooperation that allows people to work at any time of the day, anyplace and with anyone. Despite of globalization and the development of information communication technology (ICT), global virtual teams still face challenges related to different time zones, diverse cultural backgrounds of the team members and distant geographical locations. (Zakaria, 2017, 3.) Many people mistakenly think that because of various new technologies, we could put less weight on how we communicate with each other. The truth is that due to different time zones, cultural differences and distant locations, communication and cooperation has never been this complex. (Settle-Murphy, 2013, XVII.) Today's modern business almost requires companies to switch on a global oriented mind set and function internationally to stay alive and competitive. Now we live in a world where international virtual teams are becoming more common and via ever spreading online connections and evolving communication technologies, virtual teams become as part of the average employees work life. (Brever, 2015, XV.)

The first chapter gives an overall initialization of virtual teams and their position in today's modern business world. In addition, the whole research process is described in more detail and the Company X, where the research focuses, is presented briefly. Chapter 2 presents the background of the research and research methodology. Chapter 3 presents the concepts of decentralized organizations and virtual teams. Chapter 4 focuses on culture and intercultural communication. Chapter 5 presents empirical analysis of the research

and Chapter 6 gives development suggestions regarding future communication tools for the team. Research findings and conclusions are reported in chapter 7.

The commissioner of this research shall be referred to as “Case Company X” throughout the study. The Company X operates in a financial sector having local presence in various European countries. This research will focus on in one of the case company’s business line’s virtual team that consists of professionals geographically located in different European countries. The team has members in Helsinki, Paris and Brussels at the moment.

2 Background of the research and research methodology

The objective of this research was to get a better understanding of virtual team performance from digital communication and intercultural communication perspectives and to identify key communication related challenges that the virtual team members face in their everyday work. This research aims to describe the intricacy of communication within the context of multiculturalism and virtual environments. Thesis will focus on internal online communications and cultural diversity aspects mainly. To understand how these factors influence on the success of a virtual team functioning in an international organization, qualitative case study was conducted.

2.1 Research objectives

1. To develop an understanding of the virtual working environment
2. To develop a deeper understanding of the communication processes within the virtual multicultural team and to suggest development actions for team's communication practices.
3. To identify and describe possible key communication related challenges that the members of the virtual team face in their work while acting as part of the global multicultural virtual team.

2.2 Research questions

1. How team members experience virtual team as a working environment?
 - a. What kind of skills and competencies are needed to be able to work as part of the multicultural decentralized virtual team?
 - b. What are the key benefits and challenges encountered by the virtual team members?
2. How does multiculturalism appear in team's activities?
 - a. What are the key benefits and challenges of diversity?
3. How do team members implement communication processes within team's internal communication?
 - a. What is the nature of the virtual team communication?
 - b. How effective the team communication is experienced?
 - c. What are the current communication tools and channels used in team communication and how effective they are?
 - d. What is the relationship of team trust and face-to-face communication?

The following chapters presents research methods that has been used to carry out this research including research approach, research strategies, data collection and analyzing methods. This research was carried out as a case study research.

2.3 Case study research

According to Dul J. & Hak T. (2008) case study is a study in which one case (single case) or a small number of cases (comparative case study) are selected (in their real-life context) and the results gained from these cases are analysed by using qualitative methods. (Dul J., Hak T., 2008, 4.) Further, qualitative data can be defined by using contrasts between quantitative and qualitative data; qualitative data means information that is not measurable like quantitative data. Qualitative data can also be defined as spoken, written, audio or visual material that leaves room for interpretation and the focus is not on measuring matters. (Eriksson, P., Kovalainen A., 2016, 82-83.)

Case study research is often the best choice for a research strategy when the purpose of the research is to gain an in depth understanding of a chosen phenomenon. Case study research enables the researcher to investigate contemporary phenomenon in a certain context and to provide an exhaustive coverage of the phenomenon investigated. This research strategy is designed to answer questions that start “how”, “why” or “who”. (Farguhar, 2012, 6, 12.) Further, case study suits for a research method in many situations concerning for example understanding of organizational, group, individual, social or political phenomena. Case study is a perfect way to investigate and concentrate on a certain case and maintain a holistic and real-life viewpoint e.g. focusing studies for example on small group performance, organizational and managerial practises, international relations or school performance. (Yin, 2014, 4.) Yin (2014) also defines case study as an empirical inquiry that investigates an existing phenomenon thoroughly within its real-life context. This applies particularly in a case where the boundaries between phenomenon and context are not clearly apparent. (Yin, 2014, 16.)

Dul & Hak (2008) separates two main types of case studies: the single case study and the comparative case study. In a single case study, the research objective can be achieved from the data of one case. In comparative case study achieving of research objective requires data from multiple instances. (Dul & Hak, 2008, 4.) Yin (2014) describes four different types of case study designs: single-case (holistic) design, single-case (embedded) design, multiple-case (holistic) design, and multiple-case (embedded) design). In addition to this, Farguhar (2012) presents a simplified version of the Yin’s model of holistic, embedded, single and multiple cases design in which the researcher possess three options for

case study design: single case study, embedded case study or multiple case design. Single case study and embedded case study both usually concentrate on one organization. Difference between these research designs is that single case study design focuses on one case in one organization and embedded research design involves more than one unit of analysis, but the focus is also within one organization. As a distinction from these previous research designs, multiple-case design means that the research contains more than one case. Multiple-case design enables the researcher to discover the phenomenon via number of various cases and compare them. (Farguhar, 2012, 41-42.)

2.4 Interviews as a data collection method

Data for a case study can be collected in many ways such as via interviews, questionnaires, observation, diaries, documentary analysis, measuring and testing or using other numerical data (Thomas, G., 2011, 162, Tuomi, J., Sarajärvi A., 2009, 71). This research uses semi-structured thematic interviews as a data collection method and because of this, interview types as a data collection method are being described in more detail.

Interviews can be categorized into structured interviews, unstructured interviews and semi-structured interviews. Structured interview refers to a situation where the interviewer asks predetermined list of questions from interviewee. Positive things about this method is that the collected data can be analysed relatively quickly, but that's the only good thing in it. This method resembles questionnaire as it may as well be given in a written form. Unstructured interview resembles a conversation. Interviewee sets the agenda and leads the interview and the researcher's role is to listen and facilitate. Semi-structured interview consists from list of issues that needs to be addressed and covered during the interview. Interview will be implemented by following this interview schedule which works as a reminder of the topics you want to cover. (Thomas, 2011, 162-163.) Further, Hirsjärvi & Hurme (2001) describes theme interviews as a separate interview type. The difference between theme interviews and semi-structured interviews is that theme interviews focuses on to specific themes that are the subject of the discussion. Theme interviews can be qualitative or quantitative in their nature and the interview type does not take a stand on regarding how in-depth the interviews are or how many times the researcher interviews the same person. The most essential competence of this interview type is that instead of strict predetermined questions, it allows the interview to progress freely within specific themes. Theme interview can be defined as semi-structured interview because themes are the same for everyone even though it has no certain order or strict questions that are typical for semi-structured interviews. (Hirsjärvi & Hurme, 2001, 48.)

2.5 Data analysing methods

This chapter presents some common competence of analyzing qualitative data, thematic analysis and general analyzing strategies methods as this research has been conducted by using qualitative methods.

Several guiding books suggest that the qualitative data collected should be analyzed simultaneously with data collecting process, interpretation and narrative reporting. This makes a significant difference between qualitative and quantitative research (Hirsjärvi & Hurme, 2001, 136.)

Hirsjärvi & Hurme (2001, 136) presents the following common competence of the qualitative analysis:

1. Analyzing process can start already at the interview stage as it is possible for the researcher to make observations from the chosen phenomenon based on their frequency, distribution and special cases. At this stage, it is possible for the researcher to take the analyzing process forward by working among collected observations by outlining and typifying various models from the data.
2. Qualitative data analysis differs from the quantitative data analysis to the extent that usually qualitative data maintains its verbal form.
3. Researcher uses data-driven inductive reasoning or theory based abductive reasoning.
4. There are various ways to analyze qualitative data and not so many standardized techniques.

Yin (2014, 136-142) states four general strategies for the analysing of data:

- Relying on theoretical propositions. In this strategy, the analysis is based on the original theoretical propositions that develop a need for the case study and work as basis for the original research objectives and design. Research questions, literature review, hypotheses and possible propositions are based on the original theoretical propositions.

- Working your data from the “ground up”. This strategy works another way around, from the “ground up”, refers to investigation of data and finding out if the data suggests any useful concepts. This analysing method can offer the possibility to start an analytic path that leads farther into the data and discovering new relationships.
- Developing a case description. In this third strategy, the basic idea is to organize the case study according to a descriptive framework. This analysing strategy could be the best option in situations where there are no clearly defined research questions.
- Examining plausible rival explanations. Fourth strategy focuses on examining, defining and testing believable rival explanations. This strategy is perfect as a combination with the previous three strategies.

Analysing of data in qualitative research can be done by using thematic analysis method to find competence from the analysed data that are common to several interviewees. It is common that theme interview themes often create a basis for the emerging themes, but quite often new, interesting themes arise when analysing of data proceeds. (Hirsjärvi & Hurme, 2001, 173.)

2.6 Research process

This research was conducted by first studying and reviewing theoretical literature related to study subject. After the literature review, four in-depth interviews in a case company X’s virtual team were conducted. Collected data was analysed by comparing the interview findings with the literature review findings. Literature consists of topics such as virtual teams and their dynamics, virtual team communications and communication technologies role in virtual team communication. In addition, this research approaches virtual team communication from intercultural communications point of view.

Figure below describes the research process steps in more detail. Theoretical framework consists of an exhaustive literature review that presents all the essential key concepts that are relating to the research topic. Main themes are today’s distributed virtual teams and organizations, online communication in a virtual team and intercultural communication in a virtual working environment.

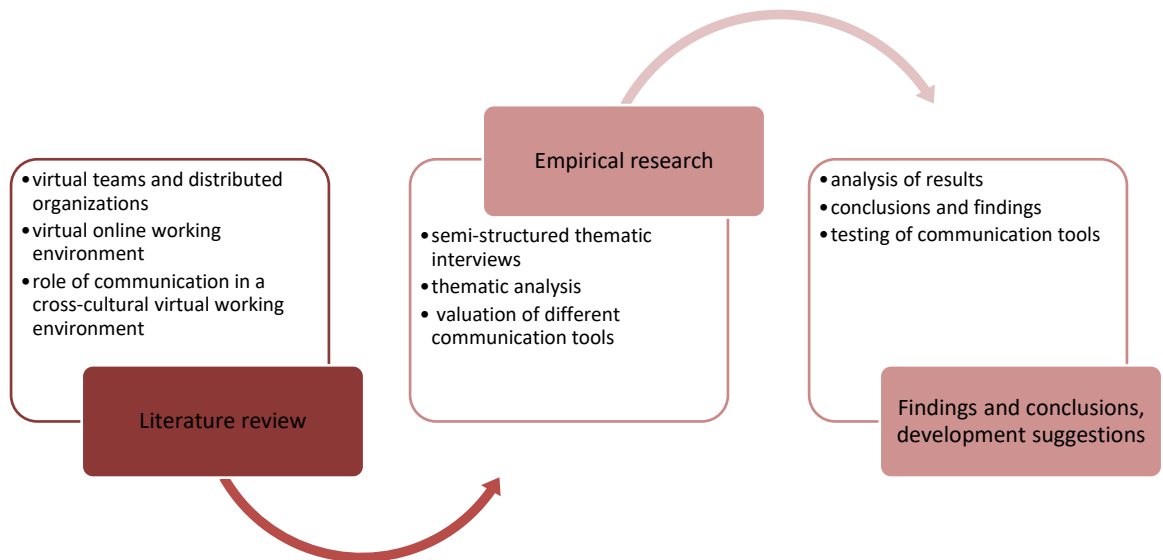


Figure 1. Framework for research process

Case study approach was chosen as a suitable research method as the aim was to create a full understanding of the function of a virtual team communication practises in a multicultural organization. More specifically, the research is executed as a single-case (holistic) design as the research focuses only in one organization and specifically in one team within the organization. The aim of the empirical research was to investigate how virtual team members communicate internally and how team’s communication practises should be developed to achieve and maintain successful operation of the virtual team.

2.6.1 Data collection process

This research was conducted as an intermediate form of semi-structured interview and theme interview as the interview themes and questions regarding specific themes were formulated beforehand. Anyhow, the course of the interviews had an impact to the pre-made questions and some of the interview questions changed places, were reformulated or left out as the interview progressed. The researcher interviewed four team members from the team that was under the research. Interviewees were selected in a way that they work geographically in different locations, with different cultural background and they have different work positions within the team. This decentralization of the sampling served the best in this research as the main approaches to the virtual team communication practices are from online communications and intercultural communications perspectives. Interview requests were sent to the interviewees during January and February 2019 by email. Two interviews were made as face- to- face interviews and two as telephone interviews.

2.6.2 Data analysis process

Research data was analyzed by using thematic analyzing method. Main themes were virtual teams as a working environment, virtual team communication processes, virtual team communication channels and tools, virtual team and multiculturalism and virtual team and trust. Method for structuring and analyzing interview material was chosen in a way that the whole interview data was not transcribed from word to word, but conclusions and coding were made by dividing interview material under the correct themes. When interview material was classified under the main themes, I combined the answers and looked for similarities and abnormalities. Data analysis phase already started at the data collection stage, when the first interviews were completed.

Table 1. Basic information of the interviewees

Interviewee P=person	Communication channel	Position
P1	face-to-face	team member
P2	face-to face	team member
P3	phone	team member
P4	phone	team member

3 Distributed organizations and virtual teams

This chapter provides definitions for distributed organizations and global virtual teams as they are key elements of the research. In addition to the definitions of these concepts, the chapter presents virtual team benefits and challenges. In addition to this, concept of inter-culture as a phenomenon will be discussed.

3.1 Distributed organizations

Distributed organization can be defined as group of individuals who work together, but in different locations, in order to achieve a commonly set goal. Work organization is being formed when people from different locations interact and communicate with each other to carry out a common task. In these organizations, information and communication technology are used as main tools for communication and collaboration which is why organizations are often referred to as virtual organizations. (Vartiainen, Kokko & Hakonen, 2004, 14.)

Virtual team (VT) is a definition for a group of people with shared responsibilities to reach set goals by having only little or almost non-existent face-to face interaction (Zofi, 2012, 12). Zofi (2012) also mentions the difference between a team and a virtual team as follows; concurrently working together, yet while physically apart. In addition, a “fifty-foot rule” can be generally applied to the communication activities between colleagues having distance between them. If the distance is more than fifteen meters, it does not matter if the other part is in the different state or in the same building, either way both communicating parties are as much virtual as the other one. (Zofi, 2012, 17.)

3.2 Dimensions of a distributed organization

The work of distributed teams and projects is based on a network of different parts or businesses of one company or a network of co-operatives formed by several independent companies. Diversity, such as different cultural and linguistic background, as well as different working hours, are also seen as determining characteristics for these kinds of organizations. (Vartiainen et al., 2004, 19-20.)

Organization performs its basic task always in its own unique environment, which can be described by combining these following basic dimensions of the distributed organization: place, time, diversity and interaction (Vartiainen et al., 2004, 20-21).

- Place: the physical location of groups and employees varies; they are working either at the same place or in different places and their location can be stationary or constantly changing.
- Time: the work is done in different time zones in succession or simultaneously. Cooperation can also be temporary or permanent.
- Diversity: different employees have different backgrounds that might vary a lot. Distributed team can consist of individuals that possess different cultural, educational and organizational backgrounds.
- Interaction method: employees and team members implement their communication via various electronic channels and tools or by communicating face to face.

Figure below illustrates basic dimensions of a distributed organization. Different combinations of these dimensions form many different organizational forms, which can, for example, be described as distributed teams or fixed-term project groups. The work of many virtual organizations is seldom completely virtual, as they also often involve scheduled or arbitrary face-to-face meetings. (Vartiainen et al., 2004, 20-22.)

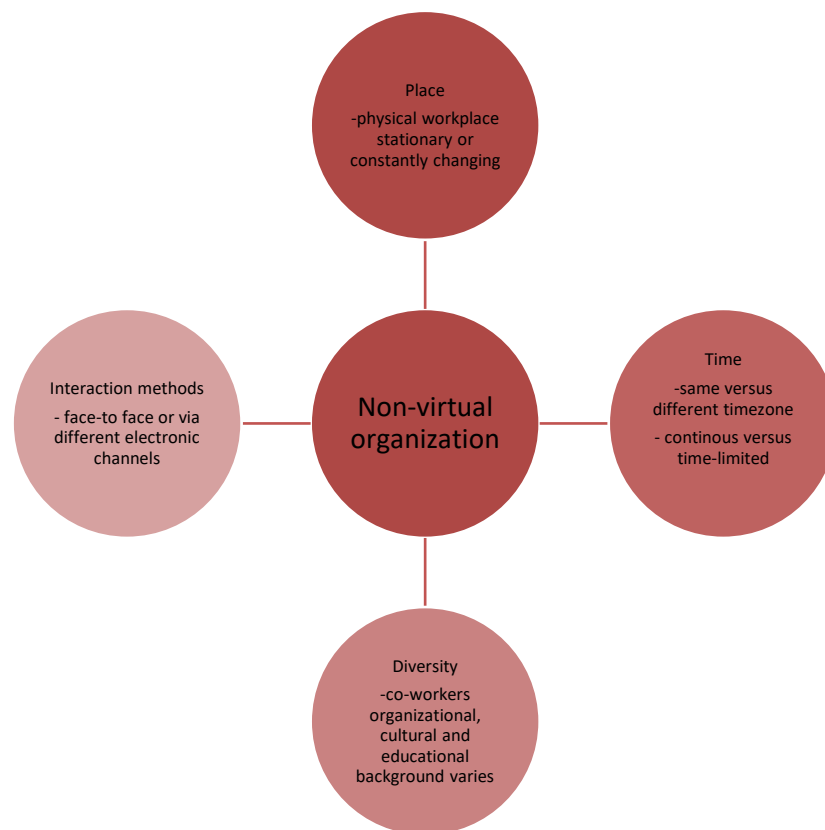


Figure 2. Basic dimensions of work and organizations (figure adapted from source: Vartiainen, Kokko, Hakonen, 2004, 22)

3.3 Global virtual teams

A team can be defined virtual if at least one of its members is working apart from others. These kinds of teams are rarely having any face-to-face communication. Virtual teams can be described in many expressions such as distributed teams, remote teams or geographically spread teams. A team can be described as a global virtual team if it consists of diverse cultures and different time zones. (Settle-Murphy, 2013, XVII-XVIII.) The nature of communication activities in virtual teams is often dialogic meaning that communication flows back and forth between participants. Communication within international virtual team focuses heavily on online communication technologies e.g. email, Skype, instant messaging and many other online media options. In other words, virtual teams use online communications where the information moves between participants. This differs greatly from online communication where information goes mainly to one direction. (Brewen, 2015, 8.) Further, Brewen (2015) lists the following widely known characteristics typical for global virtual teams identified by Guimaraes (Guimaraes, in Brewen, 2015, [8]).

- Members of the virtual team often share a joint vision of the project or work.
- Team members cluster activities around primary competencies.
- Information flow happens rapidly and in real time via systems.
- Working happens together in groups.
- Bottom up approach to work.

According to Lipnack & Stamps (1997), these following words define the essence of successful teams:

- people
- purpose
- links

Further, figure below describes The People/Purpose/Links model that reflects the relationships between these concepts. *People* represent all sorts of teams and small groups. Further, virtual teams possess members from different point of views; people with self-reliance and self-directed behaviour, people with various technical and managerial expertise which often leads to shared leadership among team members.

Purpose is a clue that holds all groups together. For teams the purpose is the task (shared goals). Cooperative goals, tangible results and interdependent tasks form three elements which enables virtual teams to focus on their set goals and stay dynamic.

Links are the channels, relationships and communications that evolve during the life cycle of a team. The biggest distinction between co-located and distributed virtual teams are in the nature and selection of their links. The term *link*, encapsulates three key aspects of communication. First, multiple media is a necessity for communication as it provides the basis for actual physical connections via e.g. phones, computers and wires. Secondly, successful virtual team needs interactions that across boundaries i.e. back- and-forth-communication activities between people. Thirdly, trusting relationships develop via interactions and patterns of behaviour. High levels of trust and positive relationships are highly important to virtual teams in order to avoid and clarify misunderstandings. (Lipnack & Stamps, 1997, 14-17.)

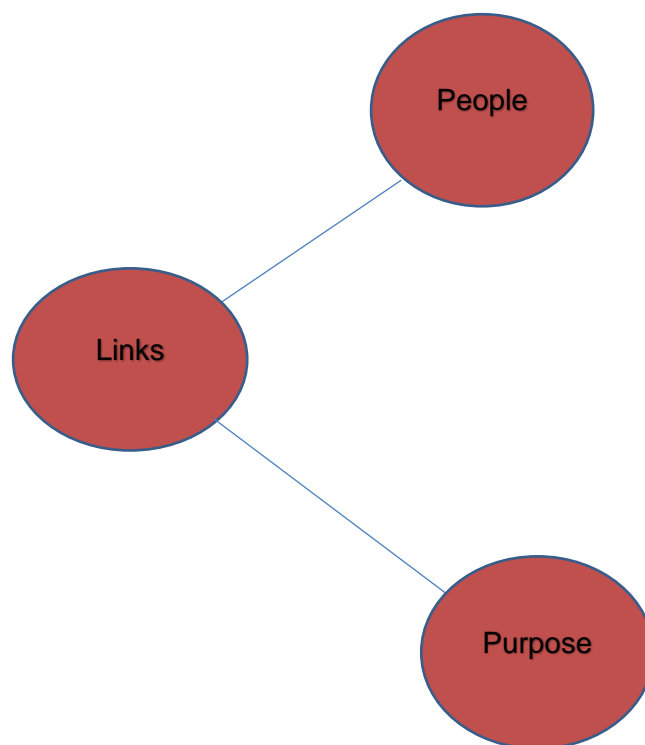


Figure 3. People/Purpose/Links model (figure adapted from the source: Lipnack & Stamps 1997, 15)

In addition, all virtual teams differ greatly from one another and this leads to a situation where every virtual team possess its own unique characteristics. Members of the virtual team create often their own *interculture*, referring to an online space consisting of its team members which are all immigrants. Each team member brings their own cultural background to the team and this creates a pool of cultures that brings out all the norms characteristic to each member. In order for the team to function successfully, every one of the team needs to negotiate their identity within the team in order to construct its own model of behaviour. *Interculture* states mutual patterns of behaviour and understanding of one

another within the virtual work surroundings. Diversity of global virtual teams can bring tremendous value for the organization in terms of its ability to bring together talented people from various organizational levels, nations and departments. Key factor to utilize strengths and value of global virtual teams for organizations is to understand and support teams at their attempts to capitalize their uniqueness. (Brewen, 2015, 17, 44.)

3.4 Virtual team benefits and challenges

Virtual teams possess many beneficial skills that will work on their behalf when compared to traditional co-located teams. Growing of international online access enables companies to focus on offshoring and outsourcing activities and to globalize their functions by setting up offices in various countries. Further, globalization via virtual teams grows companies' opportunities to find and hire the best selection of specialists for their services and to gain more marketplace for selling of services and goods. In other words, companies are undergoing fast growth when entering outsourcing and offshoring markets. (Brewen, 2015, 9.)

Virtual teams often have various experiences and know-how that enriches the expertise within the team. Further, virtual teams can greatly benefit from time zone differences if they organize team tasks in a way that someone of the team is always working on a project. Large compound virtual projects, which are characteristic for a virtual team, are often widely recognized and tend to have prominence. This might be beneficial for the team members in order to advance their careers. In addition to these, quite often virtual team members have valuable contacts and resources they can share with each other. (Settle-Murphy, 2013, 1.) Further, today's constantly globally expanding businesses provide a perfect platform to use virtual teams from technological, cost-conscious and global workforce point of view. Online communications enable virtual teams to function all the time more efficiently by using various online communication devices, networking sites, document controlling systems and technology memory recording tools. (Zofi, 2012, 13-14.)

According to Settle-Murphy (2013), the other side of the coin is that virtual teams are lacking know how on how to implicate their work more efficiently and successfully. Virtual teams often implement a very complex and extensive companywide projects that creates the need for a well-planned communications actions and carefully calculated and linked process steps. Further, difficulties of creating trusting relationships within the team is often a challenge due to a lack of face-to-face communication, including social interaction, which slows down the development of trusting relations. Also, lack of informal casual conversations, leads to a situation where team members have fewer opportunities to share information and learn in casual settings. (Settle-Murphy, 2013, 2.) In addition, communica-

tion and teamwork easily suffers when team members possess different cultural and linguistic background. This kind of diversity can make collaboration challenging and frustrating (Settle-Murphy, 2013, 2.) Settle- Murphy (2013) also mentions that lack of time is a challenge as many virtual teams need to consider several holiday schedules and national holidays when planning their timetables. In addition, time zone differences easily effect on duration and amounts of communication events. (Settle-Murphy, 2013, 2.)

There are also various causes that drives the virtual team to function from different operating conditions such as access to resources and data, information sharing, distance to supervisors and headquarters and acquirements to interact with people. In addition to this, virtual team members might be more difficult to notice if they have distracted from central issues such as accountabilities and deliverables. Hence, saying out of sight, out of mind can be applied to virtual team challenges as some team members tend to back out on commitments when they don't meet each other on a regular basis. This might cause problems when the other members of the team honors all commitments and expects others to act on the same grounds. Settle- Murphy (2013) also addresses the challenge of giving and receiving feedback, as it seems to be less regular and disconcerting process in both, from leader to each member and among team members. (Settle-Murphy, 2013, 2.)

Settle-Murphy (2013) states that in order to reach into greatest potential and to fully utilize all the advantages of a virtual team characteristics, such as diverse perspectives, knowledge and skills, virtual team members must create a foundation for the successful exchange of information and ideas. This seamlessly functioning information flow requires a well-choreographed communications plan that takes into consideration various objectives such as different time zones, cultural diversity and preferences. Further, it is highly important to define *how* team members communicate, for *what* purpose, *with whom*, and *when*, in a situation where team members are located geographically in different places and time zones and represent various cultural backgrounds. (Settle-Murphy, 2013, 53-54.) Further, communication labels both, traditional teams and virtual teams, but the need for increased amount of asynchronous communication in virtual team communication is a factor that almost unanimously separates them. Virtual teams do not possess so many opportunities as the traditional teams does to engage in synchronous real time communication situations. Key factor for a successful virtual team operation is that all the members of the team learn to become as active communicators and exchange information despite of the challenges regarding different time zones and physical places. (Raulea & Raulea, 2010.)

3.5 Communication technology in virtual teams

Technology mediated communication/ online communication is a key part of the literature review as electronic communication and the function of a virtual team goes hand in hand. Information technology undoubtedly is the most crucial factor for virtual teams in order them to function in global businesses. Without comprehensive and effective communication tools, virtual teams would not have much of a foothold in working life, even though its core is still people and places. (Zofi, 2012, 16.) Virtual teams cooperate, share information, communicate and coordinate their productions via information and communication technology. This way of virtual working represents the key factor that differentiates virtual team from traditional, co-located teams. (Raulea & Raulea, 2010, 693.)

Suchan & Hayzak, (2001) accentuates that integrated communication links (communication technology), should provide support not only to transfer information and other tasks, but to help team members in mentoring, coaching and solving conflicts. All these activities will help the virtual team to maintain commitment to common goals and increase and maintain trust and member satisfaction among team members. Further, in order for the virtual team to maintain their communication activities, organizations need to invest into well-integrated technology. This means investing in skilled IT support staff that ensures functioning servers, networks and updated company databases and provides technology training for staff if required. (Suchan & Hayzak, 2001.)

Brown, Huettner & James-Tanny (2007) explains that it is highly important to take time to evaluate the current situation and the needs of the team when planning what kind of communication channels and tools are being used. Further, a team leader must define the specific goals that needs to be achieved with the virtual team, the current communication tool capacity, which communication tool is appropriate for each task and what kind of people works in the team i.e. what kind of technological acquirements and know-how they possess. The most suitable communication tool can be defined by thinking the nature of communication need i.e. is the purpose to implement for example one-to- one communication or send a message that is urgent. Wiki pages are probably inappropriate channel to communicate one-to one discussion as usually many team members read them. Another example of the poor choice of communication channel is to communicate something vital and urgent via message board because often all the team members do not read message boards regularly and this way they do not receive the urgent message on time. (Brown, Huettner, James-Tanny, 2007, 63-76.)

Brewen (2015) accentuates the role of virtual team members when learning and planning a virtual team communication pattern. Virtual team members play an important role in creating and constructing the team by internalizing and learning communications patterns and technologies that functions best within the team and helps the team to reach their goals. Compared to collocated teams, adoption of suitable communication channels and technologies is a more crucial process to contribute in virtual teams because team members are to some extent often separated by distance, time, cultures, and skills. Team members are the best experts to evaluate what kind of online communication solutions works best for them. (Brewen, 2015, 20-21.) Further, virtual team members are able to create major value for companies by adopting an important role in the making of online workplace. Information changing by using suitable communication technology creates usable and useful information, which can also be called knowledge. In other words, a crucial factor is that functioning virtual teams need to become very good at passing knowledge. (Brewen, 2015, 20.)

3.5.1 Media richness

Richard L. Daft and Robert H. Lengel (1983) presented media richness theory in their report as follows. Lengel (1983) argued that the communication media used in organizations defines how rich the information processed is. If the communication of an item of data delivers recognizable new understanding, it would be considered rich. Low richness means that the information provides only little understanding. Further, communication media determines the richness of managed information. (Daft & Lengel, 1983, 7.) Further, according to Trevino, Daft & Lengel, (1987, in Carlson 1994, [280]), these following characteristics defines media richness:

1. speed of feedback
2. ability to communicate various cues
3. ability to present exclusively tailored messages
4. the capability of the channel to use natural language to convey subtleties

Original communication media richness theory includes face-to-face discussion, telephone calls, letters, written documents and numeric documents. Face-to-face conversation mediates the richest information while numeric documents conveys the leanest information. (Daft & Lengel, 1983, 7-9.) In addition, media richness theory has been modified later to incorporate electronic media. According to this expansion, electronic media is seen less rich compared to a telephone, but more rich than written communication. (Carlson, 1994, 280.)

Brewen (2015) emphasizes that to this day no online technology exceeds the superiority of face-to-face communication and despite of today's modern communication technology, organizations and virtual teams still need various technological solutions to compensate and to achieve the same benefits that face-to-face communication provides (i.e. support to social and formal communication requirements). (Brewen, 2015, 27.)

Media richness theory works as a framework that explains how a particular communication medium is able to duplicate sent information without any distortion or loss. For example, video conferencing can be seen as more rich communication medium compared to a telephone call because of its ability to reproduce more visual social cues e.g. gestures. On the other hand, telephone call is seen more rich communication medium than email. It can be stated that the more equivocal and unclear the task is, the richer format of media is needed. (Warters, 2019.)

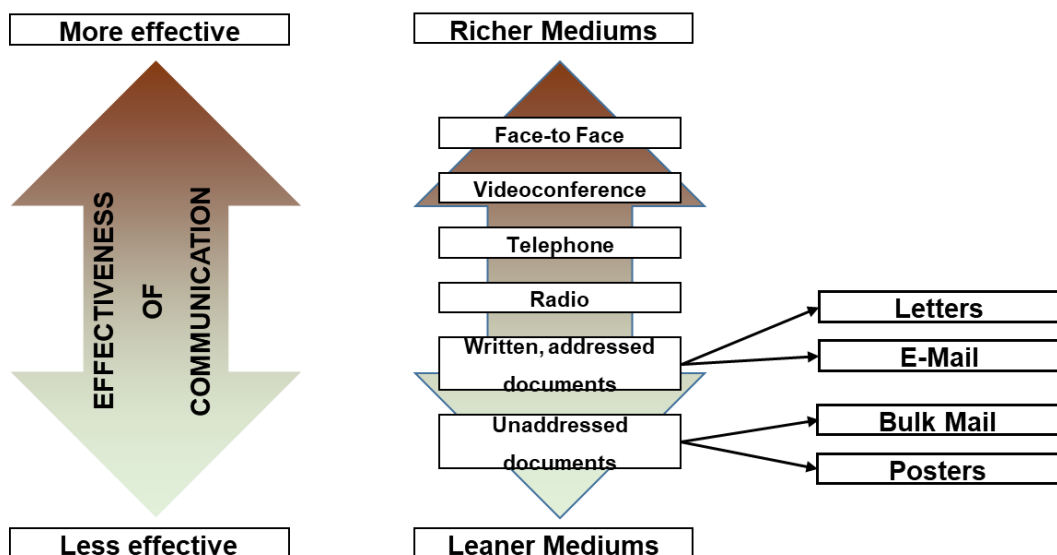


Figure 4. Media Richness Theory framework (adapted from the source: Warters 2019)

Diagram above describes in more detail the Media Richness Theory framework. According to Daft & Wiginton (1979), face-to-face communication enables feedback in real time and gives the best opportunity to correct possible misinterpretations. In addition to spoken language, face-to-face communication offers various cues such as body language, tone of voice or facial expression. Further, even though communication via telephone is fast, and giving and receiving feedback is a quick process, it still lacks out on visual cues. Understanding must be developed through language content and audio cues. Written communications are less rich, and the feedback competence is slow. Communication receiver needs to rely on visual cues in a form of written message. The leanest communication

channels are numeric documents because they cannot provide rich information like natural language and lacks out on observation, personalization and feedback. (Daft & Lengel, 1983, 9.)

3.6 Communication challenges in virtual teams

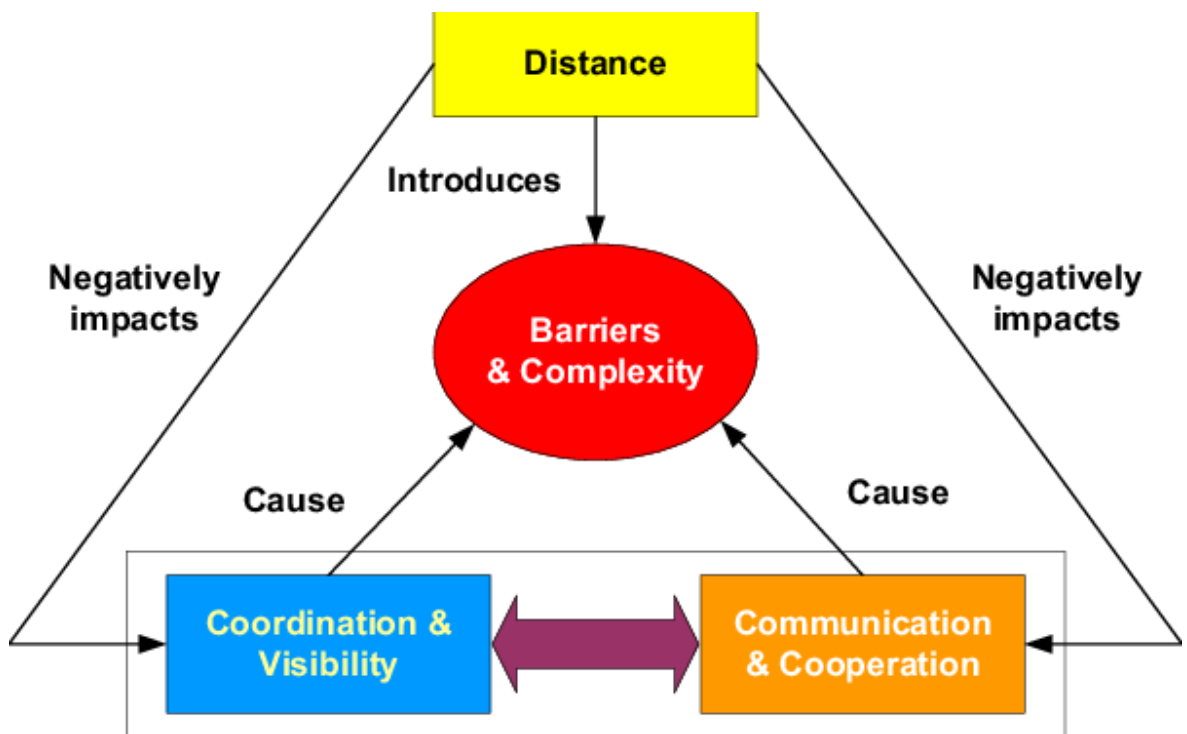
People and purpose can be seen vital to the success or failure of virtual working environment and technology functions as a facilitator of the communication practises that accomplishes purpose, but at the same time technology can also cause communication challenges in virtual workplaces in a form of richness, reliability, availability and perception. Team members might have dissenting perceptions of a particular technologies and the availability of technology. Technologies also differ in their capability to send various cues and possess strengths and weaknesses. Reliability and availability of online communication solutions can still strongly be dependent of the geographical location of the team member. In addition, organizations should assess communication security risks and outages when planning infrastructures and contingency operations. (Brewen, 2015, 26-27.)

Rathana & Kleiner (2013) defines four crucial factors; location, culture, nonverbal communication and trust, which all have an impact on whether the virtual team can communicate successfully and to reach set objectives. Further, with the help of appropriate technology solutions, some of the barriers regarding time and space (location) distance can be reduced. Especially time zone differences can have a major impact on the selection of type of communications and methods as members locating in different time zones cannot necessarily execute more effective and rich synchronous way of communication e.g. video conferencing due to time zone differences. In addition to this, Rathana & Kleiner (2013) highlights the possible barriers caused by culture related language issues as especially in global teams, people have differing levels of language proficiency and this might cause delays in communication. (Rathana & Kleiner, 28–30, 2013.)

In an article "Communication and Trust in Global Virtual Teams" Järvenpää & Leidner (1999), explores the challenges that global virtual teams encounter in their attempt to create and maintain trust in teams where the members transcend time, culture and space. According to the study global virtual teams can experience a form of "swift" trust (imported, not dependent on communication behavior), but such trust appears to be very temporary and fragile. In addition, the study showed that teams with high on trust were able to unravel problems and resolve conflicts in an environment where they were lacking out on electronic communication. The team was communicating both tasks and social

communication. The study shows that communication that “exists everywhere throughout the project” is vital to maintain trust. (Järvenpää & Leidner, 1999, 791, 813.)

Figure below describes the relationship of distance, communication, collaboration, visibility and coordination in virtual team function. More precisely, how distance has a negative impact on communication, collaboration and visibility within the virtual team (Denhere, Hörne, & van Der Poll, 2015, 2.)



Picture 1. The impact of distance on virtual team operations (Denhere, Hörne & Van Der Poll, 2015)

Further, Jacob Morgan also emphasizes the impact of distance on communication and collaboration in his internet article “How Distance Impacts Employee Communication and Collaboration”. The farther the coworkers are from each other, the worse they communicate and cooperate. He highlights the importance of today’s collaborative tools and their positive impact on exchanging of information, despite of where communicative parties are physically located. Morgan mentions that communication via email is not the answer for communication problems in modern distributed organizations because often people use emailing as a communication channel when they know the receiver beforehand, which are usually the people who work in the same office or at the same division. (Jacob Morgan, 2012.)

4 Intercultural communication

Aspects of culture, communication and intercultural communication are included as part of the literature review of this thesis as the research focuses on virtual team that consists of members with different cultural background. In addition, concept of online intercultural communication should be seen as a separate contributing factor to global virtual team performance.

4.1 Dimensions of culture

Cooperation and encounter with people from different cultures often highlights the exclusivity and fine characteristics of our individual cultures and we learn to honor and appreciate them. In the past organizations functionality and results were strongly coupled with task and technology and that the culture had no influence on the outcome. Nonetheless, today is commonly known that the culture has a major impact on the behavior of organizations and influences on the behavior of people working within organizations. (Adler, 2002, 35.) However, Neuliep (2015) emphasizes the fact that a relationship of culture and human communication is contradictory, because in everyday lives people are usually unconscious about culture, but still culture influences everything e.g. how we feel, think and act. (Neuliep, 2015, 48.)

Further, Brewer (2015) states that culture as a concept is a very compound phenomenon that must be seen differently when it is applied to the virtual working environment as culture's influence on the function of a virtual team communication differs from the influence it has on face- to face communication. Also face-to face communication and online communication can be seen as separate phenomenon. Miscommunication in an online environment is more difficult to recognize and resolve and therefore there might be a tough price for misrepresentations. Further, intercultural communication functions as a basis for intercultural online communication, but it is essential to go beyond that and create a functioning plan how to implement intercultural communications in an online environment. (Brewer, 2015, 33.)

The concept of culture can be compared to an iceberg that floats in the ocean, people do not get into trouble because of the apparent visible cultural variances. The reason for difficulties lies in the nuances that can be found below the surface, in people's conscious awareness. (Brown, Huettner & James-Tanny, 2007, 19.) Further, the concept of culture can be defined as follows:

- above the waterline: circa 15 percent to 20 percent of culture is easily noticeable. This includes all the things that are linked to obvious culture related attributes such as language, laws, ethnicity or architecture
- at the waterline: circa 5 percent of culture is barely visible referring to things that might not be obvious at first hand but almost everyone knows they exist e.g. hierarchy or how formally people behave
- under the waterline: circa 75 percent to 80 percent of culture is hidden below the surface, deep down into people's consciousness. This part of cultural competence consists of various attitudes, expectations, principles, biases and so on. These attributes are often really difficult to describe and recognize as they are so heavily ingrained. Good example of these kind of culture related things are ways to negotiate or solving conflicts.

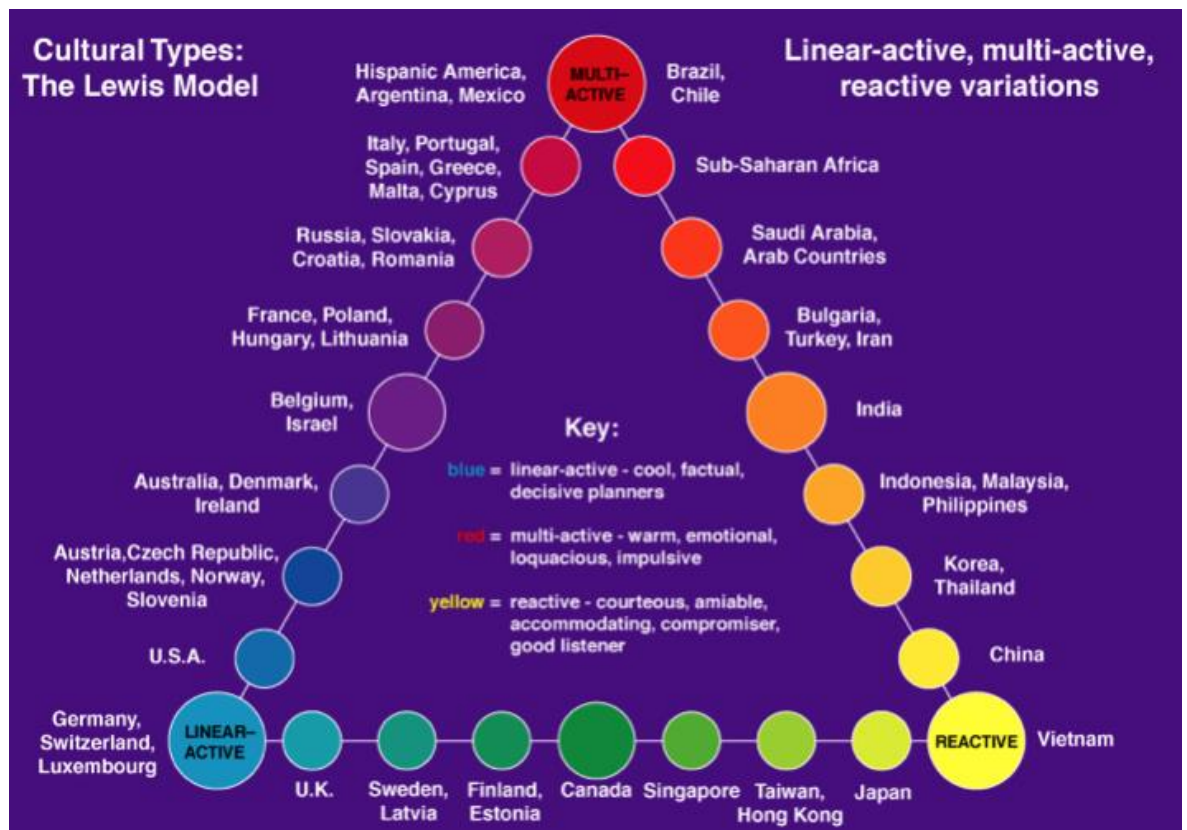
4.2 Dimensions of cultural variability

Our modern world is constantly globalizing in terms of business and seamless cooperation with people from different cultures and countries is important to an increasing extent. Various cross-cultural researchers have created different kinds of models based on diverse classifications to define a clear national and cultural categorizing to support the understanding and adaption of different cultural behaviour. There are various ways to categorize people for example based on religion, ethnicity or geographical location. Further, some other classification methods such as classification based on one's profession or organisation seems also inadequate. Geert Hofstede approaches cultural variability from these following dimensions: power distance, collectivism versus individualism, femininity versus masculinity and uncertainty avoidance. Long-term versus short-term orientation was added later on. Alfons Troompenaars categorises cultures as follows: universalists versus particularist, individualist versus collectivist, achievement versus ascription, specific versus diffuse and neutral versus emotional or affective. (Lewis, 2006, 28.) Further, Edward T. Hall approaches group classification from these dimensions: monochronic or polychronic, high, - or low context, and past- or future-oriented. (Lewis, 2006, 28.)

4.2.1 The Lewis Model

Richard L. Lewis approaches cultural diversity in constantly globalizing business environment with his LMR Model of Behavior. According to the model, the world's hundreds of different local and national cultures can be divided into three groups based on their behavior: linear-active, multi-active and reactive.

Linear –actives represent group of people whose behavior can be characterized as highly-organized and task-oriented. Multi-actives on the other hand are behaviorally very talkative and people-oriented. Reactive people tend to be very good listeners with focus on respect towards the other communicative party. Further, it is clear that a cogent categorization is very important as it allows people to foresee cultural behavior, recognize coherence, understand why people behave and function in a certain way, avoid conflicts and standardize guidelines. (Lewis, 2006, 27–29.)



Picture 2: The Lewis Model of Behaviour (Richard Lewis Communications, 2015)

Figure above illustrates the Lewis Model of cultural types. Diagram presents each culture positioning on a scale of linear-active, multi-active and reactive nature. It does not illustrate cultural distance between each nationality or attribute any other culture-related similarities such as religion or prohibitions. (Lewis, 2006, 41.)

LINEAR-ACTIVE	MULTI-ACTIVE	REACTIVE
<ul style="list-style-type: none"> •patient, talks half the time •rarely interrupts •plans ahead systematically •does one thing at a time •confronts logically •sticks to plans and facts •unemotional •polite but direct •reluctance to lose face •favors truth before diplomacy •concentrates to work •sometimes impatient •respect towards officials •limited body language •distinguishes social and professional 	<ul style="list-style-type: none"> •very talkative and often interrupts •multitask •shows his/hers feelings openly •plans only large lines •emotional •confronts emotionally •focus on people •impatient •feelings more important than facts •rich body language •adaptable truth •seeks out key person •mixes the professional and social 	<ul style="list-style-type: none"> •listening over talking, good listener •follows general principles •reacts to partner's action •never interrupts •indirect and polite •avoids losing face •extremely people-oriented •patient •discreet body language •interprets statements as promises •uses connections •connects the professional and social

Figure 5. Categories of linear-active, multi-active and reactive characteristics (adapted from source: Richard Lewis Communications, 2015)

Figure 5 above clarifies what kind of special characteristics linear-active, multi-active and reactive people possess. Categorization shows clearly how differently people from different LMR model groups communicate and approach the other communicative party at the state of negotiations. Linear-actives are patient but still talks when needed, multi-actives talks constantly and interrupts the other party and reactive people tend to listen instead of talking. There are also differences for example in a way how people from different groups approach tasks and confrontations, express themselves via body language, value job over people and vice versa. In addition, there are also differences on how people relate on mixing of professional and social interaction.

Linear-active people value strict schedules and they do one thing at a time during the given period as they see this as the best solution for being effective. Obviously, these kind of differences in behaviour can cause a serious crises situation when the other party has completely different approach to time schedules and for which matters time is being used. On the other hand, people from multi-active and linear-active groups can also learn from each other. According to the study regarding attitudes toward time, showed that multi-active Italians benefitted from investing in accurate time schedules and budgets as they were able to monitor performance and clear their goals. Linear-active Swiss learned that when operating in more flexible Italian way, they were able to react to the unexpected changes in the markets by modifying their time tables and to make last minute changes to their plans. (Lewis, 2006, 29-32.)

As a good example of differences in the behavior of people representing different groups of these categories is their perceptions of time use. Multi-active people tend to operate in an unorganized way and do many things at once. In addition, multi-active cultures are very flexible as they tolerate interruptions and delays. Approach to doing things is very people-oriented, schedules and accuracy is secondary as multi-active people prefer to focus on human transactions and conversations even if their planned schedules do not hold. (Lewis, 2006, 29-32.)

Third group, reactive cultures, can be described as a listening culture, where people tend to listen to others instead of starting a conversation. Reactive culture's representatives are very good listeners and they never interrupt the speaker. The core idea is to listen, concentrate on the sayings of the other communicative party and to never interrupt. After presentation, in reactive culture, people usually do not reply immediately, and they ask further questions instead of showing strong opinions at first hand. Japan, China and Korea are good examples of reactive cultures, but also Finnish people are strongly reactive which makes them the only culture in Europe that possess reactive characteristics. Finns often dodge confrontations and find suitable approach that pleases the other party. People from reactive cultures are introverted and they tend to rely on nonverbal communication and refined body language. This obviously differs greatly from the multi-active extroverted behavior. (Lewis, 2006, 32–35.)

People are constantly communicating because communication is everywhere. The core of humanity is on how we communicate with each other. People define themselves and others via communication as we need it to establish, maintain and end relationships. In addition, communication is the weapon to influence and persuade others. (Neuliep, 2015, 10.)

Ting-Toomey (1998) defines intercultural communication as the “symbolic exchange process whereby individuals from two (or more) different cultural communities negotiate shared meanings in an interactive situation”. This definition includes four concepts: diverse cultural communities, symbolic exchange, process and negotiate shared meanings (Ting-Toomey, 1998, 16-17).

Neuliep (2015) lists various benefits that can occur from communicating and developing relationships with people from diverse cultural background. These benefits are for example improved communities, decreased conflicts, improved trade and people's personal growth via tolerance. Successful intercultural communication creates significant economic benefits via increased international, local and national trade. Further, communication with

people from different culture can help people to manage and lessen conflicts caused by the misunderstandings and negative generalizations that we easily develop when interacting with a person from different cultural and ethnical background. Intercultural communication also enables us to achieve personal growth and create tolerance towards different ways of life by communicating with people from various cultural backgrounds and getting to know them (Neuliep, 2015, 7-8.)

4.3 Contextual approach to intercultural communication

Neuliep (2015) defines that intercultural communication happens every time when at least two persons from diverse cultures meet and exchange verbal and nonverbal symbols. Further, Neuliep accentuates that intercultural communication is contextual meaning that every time people from diverse cultures meet and exchange nonverbal and verbal symbols, they act within a range of contexts. The concept of context means the framework model in which communication happens. These contexts are cultural, microcultural, perceptual, environmental and sociorelational contexts. (Neuliep, 2015, 24.)

Cultural context describes the largest context that surrounds and incorporates all the other contexts as all communication activities among people happens within some culture. The cultural context consists of recognizable group of people with joint history and nonverbal and verbal symbol systems. People from the same cultural context share common principles, views and behavior. (Neuliep, 2015, 24-25.)

Second largest circle in the model i.e. the second largest context is the microcultural context. This context refers to the smaller groups of people inside the larger cultural setting and they somehow differ from it. Distinguishing factor can be for example race or language.

The next biggest context within cultural and microcultural contexts is the environmental context which include culture-specific geography, landscaping, architecture and climate. All these elements have a crucial role on communication processes between people.

Within the environmental context, there are two circles of perceptual contexts, one for each communicating party that reflects the specific characteristics of persons involved in a communication process. This context defines how people collect, store and repossess information and culture has a great impact on it via e.g. our values and attitudes which we assume already in early childhood.

There are two circles between perceptual contexts that describes the relationship of these two communicating parties. These circles form the sociorelational context in which the relationship of these parties is built on. Always, when interacting with each other, people assume a certain role suitable for the formed relationship e.g. teacher- student role. This certain role defines for example the topics of discussion and the style how you interact.

Sociorelational context withholds nonverbal and verbal messages circles which define how we interact with each other in our role we assume in an interaction situation. Nonverbal and verbal messages we sent to one another will determine the nature of our relationship. (Neuliep, 2015, 27-28.) The circle of nonverbal messages is more dominant than the verbal circle since most of our communication actions happens via nonverbal messages, i.e. postures, eye contact, and personal space. Nonverbal behavior is a continuing process as people never stop behaving. Further, the difference with the nonverbal codes, verbal messages consists of words that have a clear beginning and ending and that is why verbal communication only lasts for as long as people communicate with words. In summary, the mutuality of these contexts creates a phenomenon called intercultural communication. (Neuliep. 2015, 29.)

5 Empirical analysis and findings

5.1 Themes regarding virtual team environment and communications

This chapter presents the main findings of this research which are divided under four main themes; *virtual team as a working environment*, *multiculturalism in virtual team*, *communication processes in virtual team*, and *face to face communication and trust*. Interviews were implemented as semi-structured thematic interviews meaning that interviewer had premade theme areas and questions ready before interviews. Final themes that were used for analysing the research data were formulated from topics that arose from the interview discussions. Naturally themes heavily focused on communication related issues as the primary aim of this research was to research and understand communication processes of the virtual team and to identify the main communication related challenges that the team has. In addition to this, purpose of this thesis was to gain deeper understanding of the virtual working environment and what kind of special characteristics it might cause on the functioning of the team. This thesis also includes development suggestions for the team communication tools that are tested by the researcher based on the results of the study.

5.2 Virtual team as a working environment

The Company X operates widely in the European region having local presence in several European countries. The virtual team, which is the research object of this study, has team members located in Paris, Helsinki and Brussels. Geographically, company's business operations and clientele are scattered across a very wide area and the company has several virtual teams consisting of group of professionals who work together but in different geographical locations in order to reach commonly set goals. This kind of decentralized way of working has several benefits, but it also brings new challenges for team operations. First theme grasps on to the general competence of virtual team as a working environment. More precisely, at the heart of the discussions were topics such as know-how and skills needed to be able to work as part of the virtual team, virtual team benefits and possible challenges, and working methods needed to avoid building of silos between team members in different offices.

5.2.1 Skills and competence needed when working as a virtual team member

All of the interviewees mentioned that they have been working in a team for several years now and that the team has evolved over time by recruiting talented individuals who possess an international mindset and background in finance and international companies. Employee turnover has been quite limited within the team so far. Interviewees described

the most important skills that are needed when working as a member of the virtual team very unanimously. Almost all the interviewees mentioned these following characteristics as essential for the work: *self-driven attitude, human-knowledge, social skills, and excellent verbal and written communication skills in English*. In addition to this, *co-operation skills* were mentioned as an important skill.

All the interviewees highlighted the importance of self-driven attitude towards work. Though a lot of the work is being done as a team, a big part of it is done independently as all the team members have relatively broad field of activity to find new opportunities and clientele and present new opportunities for the rest of the team. In other words, the individual responsibilities of the team work emphasize importance of self-driven attitude. One of the interviewees also mentioned that the daily routines such as writing of reports is very independent work, which is usually done alone and then results are being shared with the rest of the team via email.

Self-driven attitude, our work can be described to some measure entrepreneurial and due to this self-direction is very important. (P1)

Another skill that was seen as essential character in the virtual team work is the know how to read people and understand their reactions. Social skills were also mentioned as one of the top skills needed in this work.

Little psychological eye is needed at work... seeing how the team works together, knows how to read people and draw conclusions from these findings...(P1)

Human knowledge is an absolute must, and through that, an evaluation of how people will act and behave together in the future. (P2)

Interview material also revealed that clear and effective verbal and written communication skills especially in English are increasingly important to be able to work as part of the team.

Excellent verbal and written communication skills are a must in this work, you need to be able to present your ideas clearly to your audience and make sure that there is no misinterpretation..clear communications is needed especially in situations where you present your findings to the rest of the team.(P2)

Interviews also revealed co-operation skills to be even more desired ability in the virtual team work in order to reach into set goals and tackle possible challenges together. Interviews showed that the skills of being able to communicate and cooperate with people from various cultures and backgrounds are increasingly important.

Good team skills are definitely needed in this work to be able to succeed..all though the team has set goals. A lot of the work done is cooperation in terms of changing ideas and opinions and presenting your own thoughts to the others. (P3)

..you need to be curious, you need to be analytical and you need to be team player, be able to hear what other people are saying. It is important to know how to deal with people with various backgrounds. *You need to have an international mind-set...*(P4)

5.2.2 Virtual team benefits and challenges

Several positive things and benefits from working as part of the multicultural virtual team rose to the surface during the interviews. Almost all the interviewees mentioned different backgrounds and work experience as a strength to the team operation. This was seen as an opportunity to harness a wide scale of know-how and connections for common use. One of the interviewees mentioned also that the wide range of different perspectives also perhaps develops wider range of new work opportunities and client relationships. Cultural aspects and geographical decentralization was also touched upon in the benefits.

People have different backgrounds and experiences, that is, the know-how we get into common use. I would see it as the first thing that, for example, from Paris, certain business areas seem to look a bit different as, say, from the Nordic countries. For example, when studying a German item, we have a French and a Finnish view-point on it. In the same way, here in Helsinki, we take certain things for granted in places in our countries, while the French can bring a new perspective to it. "Seen through French glasses". (P1)

It is beneficial for the team to have offices in different countries because then we can offer local presence for our customers. Then of course are these languages, for example if we have projects in France, it is always beneficial for us to have someone in the team who speaks France and sees more clearly all the cultural nuances. (P2)

Local offices definitely add value, you are closer to your client and closer to new opportunities. (P4)

One of the interviewees emphasized the team's possibilities to communicate regardless of time and space. Possibility to share information digitally was seen as great benefit as it enables team member's changes to work independently even if this requires standardized processes from the organization and the ability to follow these processes.

One interviewee from the company's headquarters emphasized the importance of nurturing the team integration and sees this as a challenge and a key factor for the successful virtual team function. Integration is something that needs to be taken into account in the team's work habits and that the team remains united and everyone is involved and in the same line in projects.

The main challenge ja success factor I think involves to the main organization and integration, I mean the ability to involve everyone, to think that this is a one firm, one team..another thing is that you need to ensure proper communication within the team. You need to be able to communicate, talk in the meetings and this concerns both, the people in the headquarters and in smaller offices. (P4)

Another challenge that is more visible among team members located in the company's headquarters is the use of English in official communications. The team consists from people with different native languages, but one language represents a clear majority in the team. No one from the team speaks English as their mother tongue, but it is the official working language and everything needs to be communicated in English so that unified and clear communication remains in the team.

One challenge in our organization is the language issue, everything needs to be in English, this needs to be remembered among our team members. For example all the emails needs to be in English so that the team members can proceed in their transactions...I think this is also important. (P4)

5.2.3 Working together apart

It became obviously clear from the interview material that the essential part of building of trust among team members is the fact how well the team members know each other. Interviews showed that the team members have been working together and have got to know each other's thoughts and working methods better over the years. As mentioned earlier, one interviewee emphasized that one of the biggest challenge and something that needs to be addressed and taken cared of is the possibility of isolation of the team members who work especially in smaller offices (outside of the headquarters). Interviewee felt

that team integration is the key to a sense of belonging and prevents isolation. It came out from the interviews that the answer to a proper team integration is an efficient and adequate communication between team members in order to make sure that everyone is involved and in the same page with the work processes.

Team integration is a challenge in a virtual team and there for you need to make sure that the team has proper communication between the members. We are quite dependent on the video in order to make sure that everyone is “on board” and up to date with the projects. Obviously you need to have a proper technology to support interaction with the other team members and an organization that fosters and values the proper communication activities and in overall smooth cooperation. (P4)

Three out of four interviewees mentioned that essential way to execute team projects in order to nurture trust and good relations, and to avoid isolation of some team members, is to prevent a so called silo building between the team members from different offices. This means that the team deliberately aims to form small teams for different kinds of projects within the team that consists of team members who work in different offices.

Often we have teams formed between two offices, that is, people from different countries work together in the same project. (P1)

...of course, we see segregation in this industry, meaning small so called country teams, where some people work in a particular office and with certain people. That's what we've avoided, we always do so. “Cross-office”, that is, I always work with someone from Paris or Brussels. It is rarely the case that, for example, we here at the Finnish office would only work together. Yes, of course it happens sometimes, but we want to avoid that usually... (P2)

When I do projects with the Finnish members of the team, discuss on a video or by phone, it feels like we are in the same team. (P4)

5.3 Virtual team communication processes

Team's communication processes were very much at the centre of the discussions as one of the main research objectives was to investigate the virtual team's communication processes more thoroughly and to identify main communication challenges that the team might have in their internal communication processes.

Interview results shows that the communication between members of the team is quite traditional as the communication channels being used are mainly videoconference, telephone calls and email. Overall experience was that the interviewees were mainly satisfied to the current communication channels and tools, even though the general assumption was that there probably are also better and more efficient alternatives. One of the interviewees estimated that the current communication channels and tools are very commonly used within this particular industry.

One of the interviewees mentioned that at some point there had been discussions over some new communication tools, especially regarding sharing and storing of data. Interviewee felt that there might be better options compared to the current communication option, "a so called virtual data room" for the team to use, but the matter had previously remained at the level of discussion.

5.3.1 Regularity of communications activities

According to the interview results, it appears that there are regular patterns on how certain communication activities are being implemented within the team and the communication channels are well established over time. The main regular communications event is held via weekly videoconference meeting with the whole team. Videoconference meeting aims to share information with everyone regarding ongoing projects, presenting of new ideas and sharing of thoughts and opinions. Sometimes there might be problems to arrange the meeting for example due to different national holidays or team members travel schedule. Almost unanimously all the interviewees experienced that there were daily communication between team members and regular pre-scheduled communication events once a week. One of the interviewees felt that the regularity of communication between team members varies a bit even though communication at some level happens daily.

The frequency of communication is daily (emails, calls etc.) but regularity varies. The goal is to hold at least one weekly video conference with all three parties working at the site. (P3)

Weekly meetings sometimes fails due to national holidays or when people travel. E-mails, in addition, fly daily, it is a means of communication within the team. Yes, communication within the team is daily and weekly... (P2)

5.3.2 Channel choice for team communication

Communication channels and tools were one of the main themes during interviews as they have a significant meaning on how team members communicate and what kind topics are being communicated in which channel. During the interviews it became clear that there is no particular officially designed communication plan that would indicate what communication channels are being used for what purpose, but the current communication practices and channels are being formed over time. One of the interviewees mentioned that official communication channels are videoconference, land lines, mobile phones and email. In addition to this, some of the team members communicate unofficially via chat applications. Unanimous opinion was that all the official discussions and decisions are being communicated by using emails because it enables all team members to receive information at the same time and it leaves so called audit trail for everyone to check things. Email communication dominates team communications especially at the moment when the team's leader is permanently located at the company's Brussels office being the only member of the team located there. This means that the rest of the team works either in Finland or in France.

...email that goes to all team members is a good way inform everyone. I think we communicate mainly via emails...but emails can be impersonal. On the other hand, emails are good in creating "one team atmosphere" when everyone receives the same information at the same time. (P4)

Despite the dominant role of email in team communications, all of the interviewees favored phone calls and video conference was seen as a better option compared to an email communication if the communicative matter enabled the efficient use of phone or a video. Phone calls were experienced as a better way to maintain dialogue between two people, changing of thoughts and opinions and receive quick answers to possible questions.

If there is a need for exchanging of thoughts, and not necessarily knowing how to form a precise question, it is good to go with a phone call. If the situation requires development of thoughts and listening to the arguments of others...In this case, phone or video is a better option than email... (P1)

Internally or externally, I think is good to pick up the phone. (P4)

Communication via email was also criticized by the interviewees as three out of four interviewees described that email communication can be a bit impersonal and stiff as it doesn't leave any room for efficient dialogue and changing of thoughts compared to phone calls or

discussions over video conference. In addition, one interviewee mentioned that its efficiency has suffered as everyone is using it so much, meaning that when everyone is having information overload via emails, a lot of important information might get lost.

E-mail is always a bit stiffer option..maybe you will also give more direct feedback if it is provided through videoconference. (P2)

It may be that not all the subtleties will come up through email if there are more complicated things, so it is good to go through them over phone so that email message can be supplemented in this way. (P1)

5.3.3 Video conference brings team members together

Video conference is seen as a good but not perfect communication channel. Interviewees brought up a few challenges and positive things regarding video conference system. One of the interviewees experienced that the system works mainly quite good. There are some problems with the connections between different offices in terms of delays in connection, but cannot see any serious flaws. Video conference is not seen as a perfect solution, but it is experienced at least as good as the phone calls as it possess an opportunity to see other people and interpret non-verbal cues and others reactions on things.

There have been problems with the video, especially when the meeting is between three offices, but mostly it works well. We don't have the best possible system, but I don't see the need for any better in a company of our size. However, the screens could be bigger... (P1)

Well, nothing is perfect, but the best option at the moment. The other option is, of course, the phone, but it is a worse, not that good than videoconferencing... the problem of course is that if there are many people at one time, not everyone can get out loud and can't interpret it so well... but yes it works at the moment. I haven't invented any better way... of course, the number of people in the videoconference has an impact, for example, if there are five people at the other end instead of one, it will affect how much each person communicates and how freely...(P2)

Videoconference was compared to Skype, which was briefly in use in team communications several years ago. Unfortunately it became quickly obvious that Skype did not work as a communication tool. Videoconference was seen definitely as better and more functioning option, even though Skype is not tied into a specific location like videoconference is at the moment. Users experienced so many difficulties with Skype in terms of bad connections that everyone just stopped using it.

Actually in last year, I tried again using Skype with a foreign participant and after 5 minutes, it was abandoned and switched on to a regular phone... (P2)

One interviewee mentioned other non-communication related positive factor that using of videoconference might have. It will reduce unnecessary travelling that is of course ecological and cost-friendly option for the company. Despite of this, the same respondent felt that videoconference is still unable to fully replace the need for face-to face communication.

A useful addition to communication that may also reduce non-essential travelling which is of course more ecological and cost-friendly option! But still so far I personally still do not think that video conferencing can replace face-to-face communication. (P3)

5.3.4 Storing and sharing of data

Sharing and storing of data came to talk several times during the interviews. The team uses a so called “data sharing platform” that is mutual for everyone. The whole organization functions within the same network that is operated from the headquarters. All official documentation regarding storing and sharing of data to other team members is in the organization’s internal network in a form of data files. This kind of handling of written documentation has been formed over time and almost all the information is in a digital form in the network that is available for all the team members to view. The interviewees are all quite satisfied to the current situation of data storing but one of the interviewees mentioned that there has been conversations of creating a “virtual work room” or virtual memory board for everyone to use. Data sharing often happens via email and due to this its efficiency as a communication channel has suffered. Overall opinion among the interviewees was that data storing and sharing works quite good but it could work even better if the team would have more professional data sharing virtual work space as a communication tool.

..I think this has been a common practice always in this organization...and it has been important that the offices have shared servers when there is such a huge amount of data and reports, that is, it is important that everyone has access to the same materials. I think the existing data management methods and communication tools are also common practice in this industry. (P1)

...over time, our network has emerged, with dozens of folders with reports that everyone can see. We also have our own folder in our office. Probably not everyone knows exactly where all the information is found, but on the other hand it is not necessary either..(P2)

5.3.5 Face- to face communication and trust

Without any doubt face to face communication was seen the richest way to communicate. All of the interviewees states that face to face communication has undeniable benefits as it gives an opportunity to see verbal and non-verbal messages and engage easier into informal discussion. Two of the interviewees estimated that there would be a need for more face to face communication events if that would be possible. At the moment the aim is to arrange face to face meetings at least couple times a year where the whole team is on site. Two interviewees on the other hand felt there is enough face to face communication as it is possible to meet some of the team members e.g. during some common traveling event and that video conference communication is almost as good as face-to-face conversations. As a summary, even though face to face communication was seen the best way to communicate, there were a bit differing views whether there is enough face-to-face communication or whether limited amount of face-to-face discussions has an impact on team trust or not.

Yes I would think I would prefer more face to face communication. We've been talking about it, and the goal is to try to arrange travels from Helsinki office to our headquarters in Paris and meet there couple of times a year. (P1)

It's not the same as seeing face to face with people. It's always difficult to interpret people on video...it is more difficult to interpret non-verbal messages of people. But on the other hand we meet when traveling and in different offices. A videoconference once a week is good enough. If you meet face-to-face once every two months, I think that's enough. Of course the phones have been invented...P2

One of the interviewees emphasizes that face to face communication gives an opportunity to interpret other people's reactions, ask more specific questions and provide real time answers.

In my opinion, face to face communication is still the best way to communicate. Then the other party can see your genuine reaction, can focus on the message and to answer any questions directly on the spot. In this way, it is definitely most effective way to communicate. In addition, face-to-face communication is the best way to get to know the opposite party. (P3)

All the answers suggested that coordinating everyone's busy and strict traveling schedules creates a challenging environment for arranging more face- to face- events. Team members already travel a lot and these events would mean even more traveling to their tight schedules. One of the interviewees mentioned that the team aims to leave some

room for casual conversation as well during the weekly team meetings via video conference. This would hopefully give an opportunity to engage into more casual conversation even though one interviewee stated that obviously video cannot replace face- to- face interaction as the whole communication situation is “stiffer” via video.

Interviews revealed the connection between face- to- face communication and levels of trust among team members. Three out of four interviewees agreed that developing trust among team members is definitely more challenging without so many opportunities to face- to -face communication even though any particular issues of lacking of trust did not occur during the interviews. One of the interviewees mentioned that the team’s Finnish members spent a lot of time at the company’s headquarters when they started working in a company and sees that this was a very beneficial way to start working in a team in terms of building trust towards other team members. In addition to this, one of the interviewees felt that mutual cultural background can be seen as a promoter for building trust.

When we started working here, then more time was spent at the Paris office right from the start. I think it was an advantage right from the start. We visit rarely our main office compared to some other team members...which probably effects on building of relations to a certain point..and also mutual cultural background must be a benefit. (P1)

One of the interviewees thinks that lack of face-to face communication between all of the team members has an effect on time that is needed to build trusting relationships among team members, but it does not prevent the building of trust eventually. Further, interviewee emphasized that time is needed in order to team members to really get to know each other and each other’s ways to work and see things, but eventually this creates trusting relationships and enables the team members to work independently.

Confidence builds over time as members learn about each other's ways of working better. When the team has been together for a long time and the common goals are clearly defined, the team members have enough trust to each other to promote their work independently. However, building of trust may take longer than compared to a team where all members work in the same geographical workstation, because the evaluation of the new members and the formation of the image is more challenging due to the distance. (P3)

One interviewee on the other hand was not sure that the lack of face-to-face communication effects on building of trust, especially in a company where the work language is English and every one of the team has a good level in English. Interviewee emphasized that

instead of face-to-face communication, it is a necessity to remember to involve every one of the team into ongoing projects by maintaining good level of discussions (in whatever channel) and to inform team members about everything.

Well face-to-face or phone...I think they're both fine. I think we have a good level of discussions, what I think is important is to on board people on projects. I'm not sure about lack of trust and face-to-face communication...when we get together in team meetings via video, it feels like we're one team. Our seminars and other face-to face gatherings are obviously very good to replace the lack of face-to face informal talking with the team members that you do not see... (P4)

5.4 Communication challenges and misunderstandings

The interview findings showed that the team has also faced some difficulties regarding lack of social interaction, challenges in information exchange, misunderstandings regarding online communication activities and challenges in constant scheduling that communication activities requires.

Two respondents mentioned that despite of the generally functioning communication flow between team members there are also some challenges regarding information exchange that needs to be addressed. One of the challenges was that the team members located in different offices were not always sure if the tasks or information regarding some specific matter was understood and communicated forward to the other teams within the organization.

The challenge, of course, is the so-called passing on information to some other teams that are not physically present in the same office.. I mean that sometimes it is difficult to know if the team member has communicated something to the other teams within the organization. This might cause misunderstandings such as if some important matter is really understood or not. (P2)

In addition to this, some challenges were experienced in changing of messages via email. One of the interviewees mentioned that there has been situations where some matters were communicated by writing an urgently written email to the respondent and the original message was then badly misunderstood. Usually situations are being clarified by using one-on-one face-to-face or telephone discussions.

Well, some things have been misinterpreted, for example, from a fast-sent email, they have been cleared by phone call or the next time we see there is a discussion between the two of us. They have helped. In this sense, emails are dangerous when

you cannot interpret the recipient's state of mind or other thoughts...the message can be interpreted quite differently from what you have meant...(P1)

Sometimes you can do something in a hurry and just call to someone and later on remember that you forgot to inform some other entity about the matter for example in London...in other words, you sometimes want to discuss about something fast and forgot to onboard everyone. (P4)

5.4.1 Communication requires scheduling

Scheduling of communication activities was experienced one the biggest challenges among team members. Spontaneous communication events are difficult to arrange as the team members are located in different offices and in different countries. In addition to this team members travel a lot and due to this they have complex time schedules to follow and several meetings to attend. Coordinating schedules between team members can be a difficult task and always slows down communication. One of the interviewees mentioned a challenge regarding video conference meetings which is often used as communication channel for team meetings. Video conference is very good option for team meetings as it enables virtual meetings but at the same time that communication channel is tied into certain physical place (office) as participants need to attend to the video meeting inside the office.

Of course, continuing coordination of timetables is challenging..sometimes if, for example, more time is spent on something that was agreed at the first place.. communication definitely requires more scheduling! (P1)

In addition, scheduling is often a challenge, as team members travel frequently and there are different appointments every day. Although videoconferencing solutions allow for virtual meetings, they are still tied to the office and cannot be outside the office in this company. (P3)

Two of the interviewees mentioned that communication challenges are also related to project follow-up processes in some situations where the projects are different from another. If the team member would like to change thoughts and opinions or share a problem, organizing a meeting in a fast schedule is often impossible or very challenging. This kind of situations leads to excessive use of email messaging.

The challenges are largely due to situations where the projects differ and the monitoring process does not flex in every situation. If a team member would like to share a problem or ask for views from others, arranging a meeting with a short schedule is

often challenging. Because of this, the team often uses emails in communication..(P3)

5.4.2 Lack of social interaction

The research material clearly shows that the lack-of so-called water cooler conversations is an unfortunate fact that is present when other team members are physically located elsewhere. This kind of missing out on informal casual conversations between team members can be related to a limited amounts of face-to face communication events which is a typical trait for the virtual team. All of the respondents mentioned that the lack of casual conversations might lead into missing out on some valuable information and one of the respondents felt that this is the biggest practical challenge that the team has.

After years, of course, you have learned to know each other better and the thoughts of others, but, of course, the so-called exchange of tacit knowledge, i.e. so-called coffee machine conversations are easy to get away with, so you may lose valuable information or some useful attention that will not be asked or noticed in a videoconference or some other official communication situation. (P3)

...there are informal but still useful conversations, it is often easier to go through without organizing a video conference and coordinating all schedules. I think this is also the biggest practical challenge for the virtual team..(P3)

One of the interviewees took a cultural approach on social interaction situations by emphasizing the importance of a free-form discussions to the French culture, but also saw this as an issue that is more related to the geographical fragmentation of the team. Most of the team members located in the company's headquarters share the same cultural background and also has better opportunities to engage into social conversations with each other compared to the team members located in company's other offices.

There is a lot of free-form discussion between people at the Paris office, this is important in the French culture. This form of communication is, of course, difficult to achieve through a videoconference. This is a challenge and therefore the importance of communication in other channels is increasing in order to avoid the isolation of smaller offices from headquarters. (P4)

5.5 Communicating across cultures

Multiculturalism can be seen in many ways in the function of the virtual team. All of the interviewees felt that having different nationalities and cultures represented within the team brings out many positive things for the team and the organization as a whole. All the respondents shared a mutual opinion that culture definitely has an impact on how people behave and how their world view is structured. Despite of this, two interviewees emphasized that besides cultural differences, team members have concordant background in various international financial organizations which creates certain converging ways to work for everyone. In addition, two interviewees mentioned that there are differences in ways of negotiating, using time and, for example, dealing with deadlines.

I would say that the general observation is that perhaps clearer and slightly more open communication is required then when there are some different cultural backgrounds. That is, you have to "write things more open" and justify them more with a person from different cultural background...for example, different perceptions of what the final deadline is when things have to be done. Of course, it can also be individual or cultural. For example, Finns have the kind of "by the book" way of thinking. Finns follow the schedules quite accurately, whereas then in Central Europe, for example, it is believed that the schedules are flexible. In most cases, the schedules are flexible, in fact, you have to dare to know and remember to ask. (P1)

I would describe for example Finns as more quiescent and calmer compared to Southern and Central Europeans...maybe the differences aren't not so much in the way of negotiation, but maybe in working methods. Finns want to do everything well in advance, rather than in the last minute (P2)

Although nationality as such should not matter and the corporate culture should be the same for everyone, in practice, the ways of communicating show differences in how communication is learned within culture. In other cultures, it is easier to jump straight into the matter and keep the communication short and concise, while in other backgrounds, the transition to direct conclusions is perceived as possibly too quick to proceed, which may question the depth of work. (P3)

Having people from different cultural background in the team often means that team members master different languages and are familiar with different local cultures. This was also seen as a benefit among interviewees.

...the advantage is definitely in knowhow of different languages, our activities are located in different parts of Europe and it is definitely an advantage that, for example, when working in Italy, a team speaks to Italy and knows the culture. Maybe put the right person in the right place...(P3)

The impact of cultural background on the choice of communication channel came also as the topic of the discussions. One of the interviewees saw stronger connection between cultures and media channel choice, but generally all of the interviewees felt that choosing of communication channel is more related to the company's organizational culture and the work requirements, not so much on individual's culture related choices.

I think that in the beginning, we in Finland were choosing more e-mail communication and the French people like to talk, but now it's sort of evened out because the team leader is at a different address than other team members, so that joint communication is more by email... In the two-way communication, the French will definitely like to use the phone and I think that in Finland, we have also increased the use of phone communication from the early days. Of course, the reason may also be the adaptation of the company's work culture... (P1)

I would see that this is more related perhaps to hierarchy, i.e. the position of the person in the company. A junior-level person may use more e-mail when dealing with a senior person ... I might also think of time zones here, that is, prefer to put an email on a person if you know that there is a really early morning at the other end. I have not noticed, however, that anyone would particularly prefer some channel over another when communicating. Probably the organization's shared work culture is going to go beyond the cultural background, that is, if the organization tends to communicate for example with an email, then that is the way how everyone operates... This is also influenced by job requirements, that is, if everyone travels and is on vacation, then email is a clever way. (P2)

6 Communication tools work shop

This chapter will provide some development suggestions regarding future communication tools for the virtual team. Communication tool development suggestions are based on the results that were received from the research interviews. Team members were quite satisfied to the current communication tools but admitted that some things could be done also more efficiently. When selecting tools, the researcher considered some of the needs that came up from the study. Because the team members travel a lot, it would be beneficial for the team to discover both, videoconference system that can be used anywhere i.e. it is not tied into a certain place, and a functioning modern solution for internal messaging between team members. Tools should also provide an opportunity to efficiently share and store data. Researcher chose two different communication tools that could be useful for the virtual team; Slack and Microsoft Teams.

6.1 Slack

Slack is a popular communication and collaboration hub for any kind of teams. Researcher tested free version of the Slack as a website, but there are also paid versions available with a very reasonable pricing compared to all the “extra goods” that the other versions can provide. Standard option compared to the free option, offers an unlimited search for messages and unlimited apps, group calls and screen sharing. In addition, standard option has availability to guest accounts and shared channels. It is quite convenient that this collaboration tool is available in both, mobile (iOS, Android and Windows Phone) and in desktop (Mac OS X, Windows and Linux). (Slack) One of the cleverest things in this tool is the possibility to divide communication under different channels, such as budget, accounting or marketing. It is possible to implement all kinds of communication activities via this channel, as Slack offers a possibility to real-time chat and group discussions, sending of messages, audio and video conversations and opportunity to share documents.

The researcher was able to test only free version of the Slack, which presumably had an impact on the ease of operation as there were no possibility to test group calls or share the screen, but 1-to-1 video calls were available. Slack is also available as an app, but the researcher was unable to download the app due to technical challenges and therefore the experiment was done with the desktop version. This collaboration hub seems to be very clear and easy to use. Slack provides one single virtual workspace for everyone to use. The researcher was very satisfied to its basic functions as creating of new group, sending of instant messages, sharing documents and making phone calls was relatively easy and basic layout was easy to access. The researcher sees this communication tool as a very

good option to implement communications in the virtual decentralized team. Standard option package would be perfect for the team, as it provides great opportunities to have real-time online group discussions via video call and share the screen to demonstrate more complex matters. In addition to this, Slack would be perfect option for sharing important files, documents and videos, everyone would be able reach needed documentation any-time and anywhere. All the documents shared in Slack channels can be found later on from those same channels by using search option. Other cloud storage services can be also synchronized with the system.

6.2 Microsoft Teams

Another promising tool for team collaboration and communication is Microsoft Teams, which is a cloud-based application of Microsoft Office 365. Microsoft Teams offers possibility to group-discussions, web conferencing, calls and sharing of documentation with the help of Office 365 tools such as Excel, SharePoint, PowerPoint and Word. Users can interact and make videoconferences with users in their own organisation or outside the organization. (Microsoft Teams, 2019.)

Researcher tested Microsoft Teams desktop version and experienced the application very flexible and user friendly. The basic layout was easy to read and use. This collaboration tool would be perfect for the virtual team as the team already operates with Office 365 applications. The user can execute group instant messaging, share videos, documents and other files and make audio/video calls. One thing that distinguishes Microsoft Teams from Slack is the amount of integrations as Slack offers much more of them compared to Microsoft Office 365 applications.

7 Conclusions and findings

This chapter provides conclusions regarding the research project. The main purpose of this study was to investigate the virtual team's communication processes and to gather more information of how decentralized virtual team operates and communicates in a multicultural virtual working environment. This research aimed to find answers to these following research questions:

1. How team members experience virtual team as a working environment?
 - a. What kind of skills and competencies are needed to be able to work as part of the decentralized virtual team?
 - b. What are the key benefits and challenges encountered by the virtual team members?
2. How does multiculturalism appear in team's activities?
 - a. What are the key benefits and challenges of cultural diversity?
3. How do team members implement communication processes within team's internal communication?
 - a. What is the nature of virtual team communication?
 - b. How effective the team communication is experienced?
 - c. What are the current communication tools and channels used in team communication and how effective they are?
 - d. What is the relationship of team trust and face-to-face communication?

The study was executed as qualitative case study and the research data was collected by interviewing four team members from different offices and with different cultural background. Research data was analyzed by using thematic analyzing method. Main themes were virtual teams as a working environment, virtual team communication processes, virtual team and multiculturalism, and virtual team and trust.

The first research question, *how team members experience virtual working environment*, aimed to describe how virtual team members experience working in a virtual environment, what kind of special skills are needed and what kind of possible challenges decentralization cause on the team's work. The sub questions of the first research question were related to themes such as skills and competence needed in virtual working environment and benefits and challenges encountered by the virtual team members. Vartiainen et al. (2004), defined dimensions of a distributed organization by using these following basic dimensions; place, time, diversity and interaction. (Vartiainen et al., 2004, 20-21). Research

results largely supports this definition as the virtual team's members are working geographically in different places and in different time zones. Work is done in succession, but the time zone difference is only one hour, which none of the interviewees saw problematic or worth any deeper discussions. Team members also represent different nationalities and cultural background and communicate mainly electronically.

The first sub question was *what kind of skills and competence are needed to be able to work as part of the multicultural decentralized virtual team?* Findings of this research supports Lipnack's People/Purpose/ Links- model (1997, 15) that describes the essence of successful virtual teams through these concepts. Study results shows that the team members value independency, self-driven attitude towards work and social skills. Further, they share common goals and work together towards it. Team communication happens via various communication channels and the nature of communication is strongly interactive and flows between people within the team. In addition to this, the team aims to maintain and develop trust within the team by communicating actively and regularly and by involving all team members to the common projects and changing of thoughts.

Second sub question was related on *the key benefits and challenges that the team members experience when working as part of the virtual team.* Study results are in line with the thoughts of Brewen (2015, 9), Settle-Murphy, (2013, 1), Zofi (2012, 13-14) and Neuliep (2015, 7-8) to the extent that local presence in different countries was seen as beneficial for the company from hiring the best selection of people with different skills and know-how to the team perspective and to pursue new work opportunities and growth for the company. Further, research results showed that technological and cost-effective benefits were also recognized among team members. The study results showed that the team members identified communication related challenges due to a lack of social interaction situations and in information exchange, misunderstandings regarding online communication activities and challenges in constant scheduling that communication activities require when all team members have complex schedules to follow. In addition, lack of time due to various holiday seasons was also seen as a challenge. These results support especially the findings of Settle-Murphy, (2013, 2) that often virtual teams faces challenges such as lack of so-called "coffee machine conversations" which leads into difficulties in sharing of knowledge and learning from each other in casual settings.

Second research question was *how multiculturalism appears in team's activities?* The study results are in line with the thoughts of Neuliep (2015, 48) to a point that culture influences everything we do e.g. how we feel, think and act in everyday lives. The study results showed that cultural differences were recognized among team members and it can

be seen in many ways in the everyday functioning of the virtual team in terms of ways to negotiate, meet deadlines and confront people. However, despite of these differences, an overall expression was that the commonalities that the team members share with their mutual work history background in international financial organizations, was seen at least as significant factor and an enabler in creating a unified work culture of the team. This somewhat supports the thoughts of Brewen (17, 44) regarding the theme of intercultural meaning that the virtual team members create their own intercultural, mutual patterns of behavior and understanding of each other in a virtual working environment. Further, the research results in many aspects are in line with the Lewis Model of Behavior (Lewis, 2006, 29-35) categories of linear-active, multi-active and reactive characteristics, where the world's hundreds of various local and national cultures are divided into three groups based on their behavior: linear-active, multi-active and reactive groups.

Sub question *what are the key benefits and challenges of cultural diversity among team members* brought out the open attitude that team members possess towards each other i.e. different cultural background was seen as an opportunity to have many perspectives on things and also to learn some new ways to do things. These results adapt to Lewi's (2015, 29-32) thoughts on how people from different behavior groups can learn something valuable from each other. Also, wide know-how of different cultures and languages was seen as a great benefit.

The third research question, *how do team members implement communication processes within team's internal communication*, aimed to identify virtual team communication processes as a whole. Communication after all is a vital part of the successful function of a decentralized virtual team. The purpose was to find out how regularly and effectively team members communicate within the team, what kind of channels and tools team uses in their communication activities and how satisfied team members are into current communication tools. In addition, the purpose was to identify how lack of face-to-face communication effects on building of trust within the team.

First sub question *what is the nature of virtual team communication*, aimed to identify special characteristics of the virtual team communication, how regularly and how effectively the team communicates. Study results strongly supports Brewen's (2015, 8) and Lipnack's (1997, 14-17) thoughts on how communication in a virtual team flows through online channels between participants i.e. communication does not just flow into one direction, it is a constant interaction that across boundaries. Team members emphasized that the nature of communication is often a dialogue, despite of the fact that everyone's role in the team requires also capability to work independently, as it also requires a lot of changing of

thoughts, viewpoints and opinions with other members of the team. Communication itself seemed quite traditional, as there were very traditional communication channels in use. Matters to be communicated seemed to be very factual, work-related topics. Further, it can be concluded that the communication is largely focused on workplace communication, because the possibilities to maintain more casual social interaction is very limited due to low face-to-face communication.

Second sub question was *what are the current communication tools and channels used in team communication and how effective they are*. The research results clearly indicates that communication channel selection is made depending on the issue that needs to be communicated, how many people are involving the communication situation, and whether it is a one-way, informative communication event or a situation that requires dialogue. Email was clearly seen as the most essential and common tool in everyday communication because team members travel a lot and have challenging schedules. The advantage of an email was the ability to reach all team members at the same time, as it is not tied into a time or a certain place. Email was also seen as an opportunity to promote team cohesion by communicating simultaneously to everyone. However, despite of the general use of email, if possible, team members seemed to favor telephone and video conferencing as a means of communication. The phone was seen as a better opportunity to carry out more multidimensional communication and dialogue and videoconference, despite of its minor technological faults, was also seen richer way to communicate especially in group, compared to an email. Videoconference and telephone calls was seen better due to their opportunity to send and receive richer and real-time visual and audio cues compared to a written text that email communication offers. The amount of people communicating, and the nature of the topic defined which one of these communication mediums serves the purpose best. Rich information can be seen to be born in communication situations where there is opportunities to send and receive rich visual and verbal cues, communicate in real-time and present rich messages. These results are largely in line with the Media Richness Theory (Daft & Lengel, 1983) which works as a framework for demonstrating how different communication medium is able to duplicate information without any distortion or loss. The study also showed clearly that face-to-face communication was seen the richest way of communicating because it enabled to see other person's genuine reactions, see non-verbal cues and give and receive immediate feedback. This supports also the thoughts of Brewen (2015, 27) that no modern technology exceeds the superiority of face- to- face communication, although organizations can try to replicate face –to- face communications with the help of technology to receive the same benefits.

Fourth sub question, *what is the relationship of trust and face-to-face communication within the team*, aimed to describe how trust is developed and maintained among team members that have limited opportunities to communicate face-to-face with each other. As mentioned earlier, the study results showed that team members experienced a lack of social interaction situations, this is an unfortunate fact that is reality to the team members. However, it was noteworthy that the lack of social interaction was known, but the situation was seen quite differently depending on the team member's geographical location. The lack of social conversations was seen differently among team members who are located at the company's headquarters compared to those in smaller offices. Team members have different starting points for social interaction with a larger office where most of the team members are located physically. Anyhow, the study indicated that there weren't any issues with trust within the team and the overall functionality and project results were experienced quite satisfactory, although lack of face-to-face communication in all its forms was seen as a drawback and a slowing down factor in building trusting relations between team members located in different offices. This research result partly supports the findings of Järvenpää & Leidner (1999) that teams with a good level of trust were able to unravel potential problems more efficiently compared to teams with a poor level of trust. The results also partly support Jacob Morgan's thoughts (Jacob Morgan 2012) on how distance impacts on employee communication and different communication tools are seen as an essential way to maintain good communication flow within the team i.e. the team recognizes that distance can easily affect the frequency of communication activities. Further, the research study indicates that the team recognizes a threat that this kind of distortion in communications could cause isolation of some team members and a so-called building of silos between members in different offices which might have an effect on team trust and team functionality.

7.1 Summary

The purpose of this research was to gain more information of how the multicultural decentralized virtual team operates and how the team implements its internal communication processes. Research showed that the team communication appears to be very work oriented and implemented via traditional communication channels. The lack of informal interaction between the whole team is very typical for a decentralized team, but to some measure, the team has succeeded to compensate the low level of face-to-face communication with the help of online communication tools. Anyhow, it would be in the company's best interest to scan the opportunities of digitalization and to develop team's internal communications with the help of modern communication technology. With the modern communication tools, sharing information would be more efficient and work even better, regardless of

time and place. The study results also showed the connection between successful team results and levels of trust and team integration. It is evident that togetherness and good level of trust between team members builds a foundation for a successful operation within the team. Lack of social interaction and face-to-face communication is a very typical situation in decentralized organizations and therefore it would be very important for the team members to have the opportunity to meet informally on a regular basis in order to build stable foundation for team work. Research also gave some information on how the cultural diversity was experienced within the team. Even though the team is working in a multicultural environment, and people have different cultural backgrounds, at least equally important are the factors that unite team members. Despite their differences, the team has succeeded in focusing on the factors that unite the team members and creating a working culture for successful collaboration.

7.2 Limitations and ethical considerations

This case study aimed to determine how virtual team operates in the multicultural decentralized environment and how team executes its internal communication processes. However, there are some limitations and ethical considerations of this study that needs to be acknowledged. First of all, the researcher interviewed four members of the virtual team and these samples diverge in age, nationality, position within the team and years of work experience. The researcher believes that the results of the research would have been even more comprehensive if more time had been available to do the research. Further, because of small number of interviews, the importance of interviewees' anonymity was emphasized during the research process and all the interviewees are referred to as "team members" and interviewees' basic information does not cover any specific details, such as gender or nationality.

7.3 Reflection

The preliminary thesis topic was decided already during spring 2017 and it was discussed together with the case company's CEO of Helsinki office, where the researcher also works. Researcher started the actual research process during September 2018. Thesis will be finalised during spring 2019, so the whole active thesis process lasted circa eight months.

When I started my thesis process, I did not have a deeper understanding of the processes, working methods and communication needs that the virtual team has. This thesis process gave me more in-depth understanding of the objectives, goals, working environ-

ment and communication processes of the virtual team, which I previously knew only superficially. Thesis process proved to be challenging to the extent that the researcher was on a study leave during the research process and did not have the opportunity to contact the team members quite so actively or follow the team processes as closely as it would be possible when working in the same company at the same time. Further, the researcher believes that the results of the research would have been even more comprehensive if more time had been available to do the research. Now the sample of the research was relatively small.

The researcher also believes that case study research was the right method to execute this research as the aim was to gain more in-depth understanding of how the multicultural decentralized virtual team operates and how team members execute their internal communication processes. Researcher also presented couple development suggestions regarding new potential communication tools for the virtual team communication activities. Researcher believes that especially Microsoft Teams would be a perfect addition for the team's everyday work as the team already works with Microsoft Office 365 surroundings.

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Appendices

Appendix 1. List of figures, tables and pictures

Figure 1: Framework for research process

Figure 2: Basic dimensions of work and organizations

Figure 3: People/Purpose/Links model

Figure 4: Media Richness Theory framework

Figure 5: Categories of linear-active, multi-active and reactive characteristics

Table 1: Basic information of the interviewees

Picture 1: The impact of distance on virtual team operations

Picture 2: The Lewis Model of Behaviour

Appendix 2. Theme interview questions

Background information and general processes:

How long have you been working as a member of the team?

Could you describe what kind of skills are needed to be able to work in this team, in addition to the basic financial expertise?

What kind of benefits and challenges do you see in a virtual team operation compared to a traditional collocated team?

How would you describe virtual team's work habits, in other words, do you work independently or in smaller groups within the team for example?

Further to this, do you have clearly set roles for everyone on the team or do they vary a lot?

How do you implement project follow-up?
(Do you have certain project standards or regular meetings?)

If you think of a virtual team where team members represent different nationalities and cultures and are geographically located in various countries, how does it effect on the team's work? Any benefits or challenges?

Communication processes and communication tools:

What kind of communication channels do you have in use in your team communication? Are there some certain predefined communication channels to use for a certain matter or does it vary a lot?

How often do you communicate with each other in terms of including all the team members to the conversation and what communication channels do you use? Do you communicate regularly?

How about other kind of communication, for example one-on-one discussions with colleagues? How often do you communicate and what channels do you use?

Are you satisfied to the current communication channels? How about video conference system, do you think it's a good way to communicate with the whole team?

How about telephone and emails, are they good communication channels and for what purpose?

Have you experienced any communication challenges within the team and what kind of challenges there has been?

How did you solve these possible communication related issues?

How about face-to face communication. Typically, virtual teams don't have the possibility to implement face-to face communication as much as collocated teams does. Do you think your team should have more face-to-face communication with the whole team or are you satisfied to the current situation?

How about face-to-face communication and trust? Face-to-face communication can help building and maintaining trust within the team. Do you think that lack of face-to-face communication effects on building of trust among team members?

Your team uses mutual network and files to store and share data. What do you think about these processes? For example, could there be some other way to store data, maybe some better tool to store and organize all the documents and reports?

What do you think, does cultural background have any effect on how an individual chooses their communication channel, for example do they call or send an email? Or could it be more related to an organizational culture i.e. what is typical within the company?